

STRATEGY DEVELOPMENT PROCESS AND COMPLEX ADAPTIVE SYSTEMS

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Doctor of Business Administration

ASTON UNIVERSITY

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Aston University

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Thesis Summary

The two areas of theory upon which this research was based were ‘strategy development process’ (SDP) and ‘complex adaptive systems’ (CAS), as part of complexity theory, focused on human social organisations. The literature reviewed showed that there is a paucity of empirical work and theory in the overlap of the two areas, providing an opportunity for contributions to knowledge in each area of theory, and for practitioners.

An inductive approach was adopted for this research, in an effort to discover new insights to the focus area of study. It was undertaken from within an interpretivist paradigm, and based on a novel conceptual framework. The organisationally intimate nature of the research topic, and the researcher’s circumstances required a research design that was both in-depth and long term. The result was a single, exploratory, case study, which included use of data from 44 in-depth, semi-structured interviews, from 36 people, involving all the top management team members and significant other staff members; observations, rumour and grapevine (ORG) data; and archive data, over a 5½ year period (2005 – 2010).

Findings confirm the validity of the conceptual framework, and that complex adaptive systems theory has potential to extend strategy development process theory. It has shown how and why the strategy process developed in the case study organisation by providing deeper insights to the behaviour of the people, their backgrounds, and interactions. Broad predictions of the ‘latent strategy development’ process and some elements of the strategy content are also possible. Based on this research, it is possible to extend the utility of the SDP model by including peoples’ behavioural characteristics within the organisation, via complex adaptive systems theory. Further research is recommended to test limits of the application of the conceptual framework and improve its efficacy with more organisations across a variety of sectors.

Key words: longitudinal, case study, emergent process, latent strategy development.

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### Explanation of Acronyms and Abbreviations

ABS	Aston Business School
BCG	Boston Consulting Group (strategy analysis tool)
BERA	British Education Research Association
BMJ	British Medical Journal
CAG	College Advisory Group (of the Case Study Organisation)
CAQDAS	Computer Aided Qualitative Data Analysis Software
CAS(s)	Complex Adaptive System(s)
CEO	Chief Executive Officer
CHSAS	Complex Human Self-Adaptive Systems
CRM	Customer Relationship Management
CSO	Case Study Organisation
CVI(s)	Continuous Varying Interaction(s)
DIUS	UK Government Department for Industry Universities and Science
DPA	UK Data Protection Act 1998
DRAM	Dynamic Random Access Memory
EMT	Executive Management Team (of the Case Study Organisation)
ESRC	Economic and Social Research Council
FE	Further Education
FUS	Full University Status
GDP	Gross Domestic Product
GHE	Guild of Higher Education
HE	Higher Education
HEFCE	Higher Education Funding Council for England
HEI(s)	Higher Education Institute(s)
HEIF	Higher Education Innovation Fund
HR	Human Resources

ICAS	Intelligent Complex Adaptive System
IS	Information System
IT	Information Technology
JOURNEY	JOintly Understanding, Reflecting, and NEgotiating strategy  (Eden and Ackermann, 1998)
LEA	Local Education Authority
LUKU	Large UK University (anonymous)
LSC	Learning and Skills Council
MIS	Management Information System
NEM	Narrative Event Methodology
NHS	UK National Health Service
NSM	Narrative Sequence Methodology
OFSTED	UK Office for Standards in Education
OR	Operational Research
ORG	Observation, Rumour, Grapevine (data)
OR SA	Operational Research Sequence Analysis
PESTEL	Politics, Economics, Social, Technological, Environmental, Legal  (external environment analysis checklist)
PD	Patterns Development (CAS Lens facet)
PF	People Factors (CAS Lens facet)

PMT	Performance Measures and Targets (publication of the CSO)
QAA	Quality Assurance Agency (for Higher Education)
REF	Research Ethics Framework
SAP	Strategy-as-Practice
SDP	Strategy Development Process
SM(s)	Senior Manager(s), or Management
SME(s)	Small and Medium-sized Enterprise(s)
SMT	Senior Management Team
SO	Self-Organisation (CAS Lens facet)
SRN	Self-Reflective Narrative
SSM	Soft Systems Methodology (Checkland, 1999)
SWOT	Strengths, Weaknesses, Opportunities, Threats, analysis
TDAP	Taught Degree Awarding Powers
TMT	Top Management Team
TT	Top Team (member)
UCEA	Universities and Colleges Employers Association
UK	United Kingdom
V1,2,3	Version 1, 2, 3 (of the CSO Mission Statement)
VSM	Viable Systems Model (Beer, 1984)



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## **Chapter 1**

### **Introduction**

#### **1.0 Introduction**

This dissertation submits the thesis of the researcher for examination, which explores strategy development and complexity. Although each research project is unique, it is perhaps an unusual research project for a thesis submission for a number of reasons. One is that two different areas of theory are studied, strategy development process and complex adaptive systems theories, and in particular where these areas combine. A second reason is that it is a longitudinal research project spanning six years and carried out as a part-time project, whilst the researcher was also in full-time employment. In addition to this, the researcher conducted this research at the end of a long and varied career, which presents advantages and disadvantages that may be different to the early-career doctoral candidate. These possibly unconventional aspects are explained to some extent, perhaps, by the section below.

#### **1.1 Rationale and Motivation**

The genesis of this research is based on two main factors; the latter years of the researcher's career involved practical strategy development within a number of organisations, and the perceived accelerating complexity in organisational environments in which these organisations operated. These two factors, when reflected upon, prompted questions about what will future generations of strategists have to contend with and what approaches could possibly be of potential use to them ? This enigma of how organisations decide in which directions to go and how to get there, as organisations and environments became more complex, as observed in practice, stimulated a search of the academic literature to explore the extent of the current knowledge about this puzzle. The

strategy development literature as represented by Eden and Ackermann (1998), Mintzberg and Lampel (1999), Morecroft and Robinson (2005), Dyson et al. (2007), Caldart and Oliveira (2007), and Tapinos et al. (2008) give some idea of the strategy focus. The complexity literature as represented by Stacey (1995), Cilliers (1998), Arthur (1999), Mitleton-Kelly (2003a), Burnes (2005), Allen et al. (2006), and Maguire et al. (2006) give some idea of the complexity focus. The result of this two-pronged study was a focus on strategy development process theory, because this was considered the core activity of the Top Management Team (TMT), and complex adaptive systems theory, as part of complexity theories, because organisations are becoming more complex and their environments are becoming increasingly more complex. Such a study might clarify what the researcher had been doing in practice for many years in the past, and may provide utility for future strategy development; and these considerations formed the basis for the rationale and motivation for this research.

## 1.2 Context of the Research

In many ways the development of an organisation is a journey through its life cycle; some of which may be planned, some of which are opportunistic, where the timings are important, and some of which simply emerge through operations. As will be seen below (section 2.2 'Strategy' Definition) strategy is a difficult concept, which includes most aspects of an organisation. Strategy was chosen as a focus of this research because it encapsulates the core of what organisations do. This includes the *raison d'être* of the organisation, aim/vision/mission, resources, structure, operational processes, funding, cash-flows, etc.; combined to suit the organisational environment, anticipated futures (customers/markets, suppliers, competitors, and other stakeholders) in an effort to survive and prosper (Mintzberg et al., 1998).

In addition to grasping the concept of strategy, and what it encompasses, practitioners must also be aware of their own organisation and the organisational environment and make decisions, via a strategy development process, which may be explicit and/or implicit. Based on more than 20 years of practical involvement in, and observation of, strategy development (within employing organisations, and by studying customers, competitors and other stakeholders strategy and processes), it was still not clear to this researcher what was actually done within the SDP. From these observations, sometimes it was clear that the process was planned and explicit, other times less so, emerging from day-to-day operations, and sometimes a combination of approaches. Eden and Ackermann (1998) discussed this confusing process, which they say includes ‘understanding’ of the organisation and its environment, and direction in that environment; and ‘reflecting’ on the implicit assumptions held by top management, and explicitly deciding to change something, or not. The researcher also observed that advisors, consultants and academics, were often brought in to help support the SDP of organisations, where often the advice was ignored. Other human idiosyncrasies were also observed, indicating that the people element was obviously a very important part of the SDP. In addition to this, at top management level within an organisation, members of the top management team (TMT) often come from different backgrounds, disciplines, and with different qualifications, interests, experience paths and motives. Regner (2008) found that the SDP is activity orientated (actions of people) and where an awareness of social-cultural embeddedness, co-evolution, social interaction, inclusion of multiple strategists, and the importance of imagination, all contribute to a more dynamic view of strategizing, necessary in contemporary organisations. The strategy literature studied provided an ever narrower and deeper focus on the process of how strategy is developed. It was noted that generally the literature study seems to show that, as the SDP literature has developed, the focus narrows towards ‘process’, and the ‘people’ aspect of

developing strategy appears to have become neglected. A counter trend in the literature to this is the emergence of the SAP stream of literature, which pays little attention to process and focuses on ‘strategizing’, being the people activities and interactivities involved in developing strategy (Whittington, 1996; Jarzabkowski, 2005; Johnson et al., 2007). With the above in mind, and the increasing internationalisation of organisations, the SDP is clearly becoming ever more complex.

Considering the above, it also seems clear that knowledge is expanding (about customers, their needs, opportunities/threats, business models, ways of operating, technologies, etc.) and access to this knowledge is becoming easier and speedier. In addition to this organisations go through their life cycles, change and adapt, markets fragment and consolidate; and their operational environments also change in a similar complex manner. Technological developments accelerate and enable other developments; interconnectedness increases, interactions become more numerous, varied, and more complex (Arthur, 1989, 1996; Mitleton-Kelly, 2003a). To understand the complexity aspects of these developments, the complexity literature was studied, and in particular the complexity literature concerning organisations. It is clear that this literature is generally at an earlier development stage than the strategy literature, with few exceptions. These early stages of development of the complexity literature, is evidenced by a lack of agreement on terminology, and little empirical work, but it has a broad base and has been drawn from many origins (physics, chemistry and biology, but only more recently from the social sciences). The study of the complexity literature narrowed to the appropriate area for the social sciences (industry, commerce, not-for-profit sectors) and specifically on CASs. The reason for this CAS focus, was a lack of coherent structure found in the general complexity literature, the exception being CAS literature; and because organisations can be considered as literally as CASs. Generally, the complexity and CAS literature provides a broad focus on organisational behaviour.

Because of this increased complexity, strategy is becoming more difficult to do. The conclusion from this section is that, if everything is getting more complex and strategy is getting more difficult to do, an opportunity has developed to explore both areas of interest, where they overlap; strategy, narrowing to the SDP literature, and complexity, converging with the CAS literature. Where these areas of theory meet is the focus of this study, providing an appropriate research base for the task set.

### 1.3 Direction and Focus – Aim and Objectives

The above broad thinking was still too obscure on which to base a research project, and a narrower, tighter focus was needed, which crystallised into the aim ‘Does complex adaptive systems theory enlighten the strategy development process?’ Based on this the following objectives were devised, that provided the focus needed:

1. What theories explain the strategy development process ?
2. How does the strategy development process evolve, in terms of complex adaptive systems theory ?
3. How does a specific case study example of an organisation develop strategy ?
4. How do other organisations develop their strategy ?
5. Is there a complex adaptive systems theory concept, model, or tool that could inform the strategy development process ?

### 1.4 Expected Research Outputs

It is wise to have some idea of the expected outcome of the research before a start is made (Saunders et al. 2009). In this case the researcher was exploring strategy, which was familiar at a practical level, but unfamiliar at the academic level. The areas of processes, systems and complexity were equally unfamiliar, but appeared intuitively interesting and needed investigation. This meant that the research project was to be exploratory with unspecific outputs. The closest to an expected output envisaged was a

novel approach and possibly a tool or model to assist strategists and practitioners of the future. Following advice from experienced academic researchers, it became clear that many of the solutions lay in the available academic literature. The following chapter explains the process and outcomes of examining the literature.



## **Chapter 2**

### **Literature Review**

#### **2.0 Introduction to the Review of the Literature**

Prior to the design stage of any research it is essential to read the available literature on the subject to inform the research project. For a novice academic researcher, it is also wise to read widely on literature reviewing methods and be cognisant of such methods explained in articles and the literature reviews of other more experienced researchers. Saunders et al. (2009) underlines the importance of a critical review of the literature to help the researcher develop a thorough understanding of the previous relevant and up-to-date research of the topic area. Hart (1998) defines a literature review as “The selection of available documents (both published and unpublished) on the topic, which contains information, ideas, data and evidence written from a particular standpoint to fulfil certain aims or express certain views on the nature of the topic and how it is to be investigated, and the effective evaluation of these documents in relation to the research being produced.” Various suggestions have been made on how to do a literature review. Hart (1998), for example, offers a structure, which acts as a checklist; and Tranfield et al. (2003) recommend a comprehensive systematic process. Anderson et al. (2001) in their explanation of ‘pragmatic science’ suggest a less structured, yet inquisitive approach, where unpublished data, less prestigious journals, and non-academic practitioner authors can also be valuable sources to the academic researcher. Wallace and Wray, (2006) in offering their suggestions, mention that critical literature reviews are personal to the researcher, because every research project is unique and every researcher develops their own style.

For this research, which is exploratory and uses an inductive approach to investigate a sparsely researched area, a semi-structured literature review process was used, which is

explained below. Following the explanation of the literature review methods used, is a review of the literature. This begins with literature that tries to define 'strategy', followed by a review of strategy development literature, based on a wide range of topic areas, spanning strategic operational research literature, strategic management theories and strategy process research. This is followed by a review of complexity theories and complex adaptive systems literature. The resultant theoretical framework for this research is based on the two main theory areas (strategy development and complexity theories), which is followed by the explanation of a novel conceptual framework, combining the two main areas of theory.

## 2.1 Literature Review Method

The two main theory areas of focus for this research are strategy development and complexity theories and particularly the overlap between the two areas. The strategy development area was familiar to the author, as a practitioner, but theories of systems, process and complexity theories, encompassing complex adaptive systems theories, were unfamiliar. This meant that it was difficult to pre-structure a literature review process with only sparse knowledge of an area of theory. With this in mind, the literature search process started with broad, general database searches and convenience sampling (Trochim, 2006) and a snowball technique (Bailey et al. 1995) where use was made of the literature, as 'animal tracks', to guide the researcher through the area of research focus; the continuous study of the literature also helped as 'scaffolding' and 'building blocks' throughout the project (Massey, 1996). The advantages of database searches are speed and number of search results, when keywords are already known; but the disadvantages are the practical selection and analysis of the amount of data. For snowball techniques, the advantages are the continual narrowing of focus on the topic of study via the literature knowledge of research experts, which leads to the relevant authoritative sources; but the disadvantages are slow speed of enquiry and potential

‘dead-ends. The first articles studied (Price, 1995; Rosenhead, 1998; Arthur, 1999, for example) were, thus, not just useful for their content, structure and style, but also valuable for their reference lists and keywords for database searches.

Another stage in the evolving review process was the search for appropriate academic journals. Lists of academic journal ‘league tables’ were studied, to help understand the level of authority that some journals have over others, in academic communities. The most comprehensive appears to be the Journal Quality List, by Harzing (2008), which is a compilation based on relevant and authoritative international league table lists of academic journals. [The 11<sup>th</sup>. edition 2004 (including 12 lists) and the 32<sup>nd</sup>. edition 2008 (19 lists) were studied.] League table journals were not the only sources consulted. Use was also made of working papers, doctoral theses and conference papers. Works by practicing managers were also studied, in an effort to balance the contribution by academic and non-academic sources.

The reviewing of literature was an on-going process throughout the project. Periodic database searches, via keywords, journal titles, author names, and topic areas were performed continually over the six year span of the project, where the researcher became increasingly more able to narrow down the focus and become relatively efficient in finding appropriate data. The result of this process was a bibliography of over 475 items, from which the references are drawn, ranging in publication dates from 1898-2010; 23% of which were published in the last 5 years, 51% in the last 10 years; and 30% during the six-year period of this research (2005-2010), evidencing both the currency of literature and depth of initial source material.

The critical analysis of the literature was via a three-step process. The first step was to ensure the article or book under review was germane to the research, and the following checklist, based on Wallace and Wray (2006), was used:

1. Why am I reading this ? (related to focus)
2. What is the author trying to achieve ?
3. What type of literature is this ?
4. What sort of study is being undertaken ?
5. What is being claimed ?
6. To what extent is there backing to the claims ?
7. How adequate is any theoretical orientation to back the claims ?
8. To what extent does any value stance affect the claim ?
9. To what extent are the claims supported/challenged by the author ?
10. To what extent are claims consistent with experience ?
11. What is my summary evaluation of the text ?

The second step was the use of another checklist, based on the work of Fisher et al.

(2004) to aid consistent, efficient and critical analysis of the literature:

- Introduction – how does the writer introduce the work
- The writer’s purpose and objectives
- Scope of the book, article, paper
- Reference list, numbers, dates, range
- Citations – how often cited (via Google scholar)
- Research methodology, data and analysis
- Content analysis:
  - First scan read
  - Read again circling inference indicators (‘thus’, ‘therefore’)
  - Underline conclusions & (bracket) reasons
  - Attempt a summary of the argument
  - Identify sub-conclusions & conclusions with reasons
  - Identify reasons for believing conclusions (what ? why?)  
(indicators are: ‘such’, ‘because’, ‘since’, ‘it follows’, etc.)
    - Reasons (R) ranked – essential or secondary  
R1 + R2 (therefore) C (joint reason)  
R1 or R2 (therefore) C (independent reason)
- Paradigm within which the writer is positioned
- Summary, with strengths & weaknesses

The third step was to insert the analysis record in a computer database (ProCite5) for easy access and selection, and in hard copy format for backup and non-computer reference. These records formed the information, which was drawn upon, for co-writing a journal article (following review and revision, under re-submission with the Journal of the Operational Research Society), for this research project, and for future research projects.

The following section reviews the strategy development and complexity theory literature, which forms the basis of the theoretical framework, via the methods explained above.

The analysis and synthesis of the theories reviewed forms the theoretical framework and leads to the development of a conceptual framework, which is explained and discussed in a subsequent section.

## 2.2 'Strategy' Definition

This research project is concerned with the process of developing strategy. For this reason it is sensible and appropriate to explore what is 'strategy', because it is the output of the process. The first book written about 'strategy' is generally accepted as being 'The Art of War' by Sun Tzu (544-496 BC), albeit in a military context. The English translation (Cleary, 1988) has an extensive and insightful introduction distilling the essence of Sun Tzu's (544 - 496 BC) ideas, which are; 'accomplish the most by doing the least', 'deep knowledge and strong action', 'don't fight unless there is no other choice'. He mentions that it is important your strategy is 'unfathomable', yet that of your competitors is discoverable. The most frequent quote from Sun Tzu's work is 'know your enemies and yourself very well and no battle will be lost; but if you don't know yourself or your enemy, you will lose'. There are interesting parallels between these ancient ideas and more recent attempts to define strategy. Evered (1983) compares military and business strategy in his discussion about the concept of strategy; and in the process he synthesises 12 elements of strategy from his comparative study as; 1. continuous process; 2. practitioner-orientated; 3. what needs to be done, and why; 4. whole pattern; 5. value choices; 6. change generating; 7. practitioner language; 8. cohesive actions; 9. organizational processes; 10. resource mobilising; 11. reality-testing with practitioners; 12. future-attending. It is clear from this synthesis that Evered is considering strategy as a continuing and developing process, rather than focusing on the content. Porter (1996) defines what strategy is in a less structured manner in relation to 'strategic positioning' to achieve a 'sustainable competitive advantage'. "Strategy is the creation of a unique and valuable position, involving a different set of activities... that are different from rivals (to

create a sustainable competitive advantage)... (it) is also making trades-offs in competing... choosing what not to do (and what to do in creating a unique and valuable position)". The above strategy definitions are focused on business strategy and relate to an adversarial and competitive environment as in the 'for profit' sectors. Recent definitions have been more general in nature, applying to any organisation, for example, Jarzabkowski and Wilson's (2006) definition is "Strategy is a key concept of organisation theory. Broadly, it is the theoretical concepts and frameworks which guide the strategic decisions that influence both the long and short term objectives of an organisation." Similarly, the strategy definition used by O'Brien and Dyson (2007) is "Effective strategy is a coherent set of individual discrete actions in support of a system of goals and which are supported, as a portfolio, by a self-sustaining critical mass, or momentum, of opinion in the organisation." This definition also includes a significant element of process, with its mention of 'individual discrete actions'.

The lack of clear agreement on the definition of strategy perhaps goes some way to explain the difficulty of the concept. This is not helped by the variety of aspects and approaches to understanding strategy development that are possible. Mintzberg and Waters (1985) examined intended and unintended, and deliberate and realised strategies, based on their studies of many organisations, where the process may be planned or emergent, or a combination of both. These views on emergent processes have become more significant in the literature over the last two decades, where the planned approaches have reduced in significance, as organisations have become more diverse and dynamic and their environments have become more competitive and unpredictable (Whittington, 1993; Eden and Ackermann, 1998; Letiche and Boje, 2001; Fletcher and Harris, 2002). From the above study of strategy, a distillation of the definitions for this research results in 'strategy is an awareness of the opportunities and threats in the environment, deciding upon a position and direction for the organisation in that environment, the resources, the

manner and route for progress, and ensuring implementation'. It is perhaps interesting to note that when asking practicing strategists what strategy is, many have great difficulty in defining it, yet despite this, it does not seem to affect their ability to develop and implement strategy in practice. The following section explores the literature on the development of strategy, both the process theories and the development support theories.

### 2.3 Strategy Development Theories`

Reviewing the Strategy Development field of theory, it is possible to identify two general streams of literature: the Strategy Development Process and Strategy Support theories.

The former, Strategy Development Process theories, try to explain the overall process of how strategy is, or can be, developed. The latter, Strategy Support theories, relates to concepts, methods and tools to assist in developing strategy as support to the overall process.

#### 2.3.1 Strategy Development Process

With regard to the strategic management literature, Huff and Reger (1987) extensively reviewed the then available literature on strategy process research, in which the focus was on strategic planning, implementation and decision making, mainly as discrete but connected activities, where complications and complexities were considered difficulties to be overcome. One of their recommendations was to “import concepts and research from related areas”, in an effort to inform understanding of the topic. Five years later, in 1992, the Strategic Management Journal published two special editions focusing on strategy process research; the 23 articles collectively showed that the field of study had expanded. For example, Chakravarthy and Doz (1992) considered corporate renewal; Dougherty (1992) discussed practice centred organisational renewal; Melin (1992) explored internationalism in the context of strategy processes; and Mintzberg and Westley (1992) examined cycles of organisational change. However, although the scope

had widened, the depth of knowledge was still restricted to high-level concepts and relatively simple linear, sequential models, with basic (negative) feedback loops, that act as diagrammatic check lists. Hutzschenreuter and Kleindienst (2006), with their more recent and extensive literature review, clarified the widened scope of strategy process research and exposed many areas for deeper research into the topic. They note that “based on numerous, in-depth, longitudinal case studies this (strategy process) research has provided a more dynamic and eclectic view of strategy process and uncovered the messy side of reality”.

Following Mintzberg and Waters (1985) explanation of deliberate and emergent strategy development processes, mentioned above, Mintzberg (1987b) developed this theme to produce his 5P model of types of strategy; plan (intended), ploy (intended), pattern (consistent behaviour emerges - intended or not), position (organisation within the environment – niche, and relationships with stakeholders); and perspective (internally orientated – including culture, shared vision, a set of assumptions, which may be difficult to change). Since then others have explored these aspects of strategy, for example, Whittington (1993) with his four generic approaches to strategy – classical (planned), evolutionary (emergent), systemic, and processual, via two dimensions; from pluralistic outcomes – to focused outcomes, and from deliberate – to emergent processes (see Figure 1, on the next page).



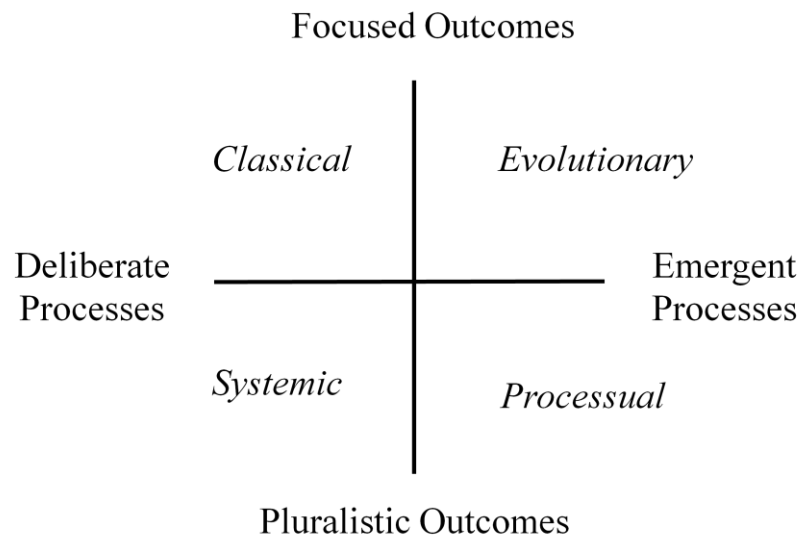


Figure 1 – Generic Approaches to Strategy (Whittington, 1993)

Fletcher and Harris (2002) from their empirical study of small and medium sized enterprises (SMEs) found that "The nature of strategy formation in entrepreneurial firms is subtle, complex and multi-faceted", where planned and emergent processes may be combined in a pragmatic manner. Studying the literature further it can be seen that the Strategy Development Process theories include broadly two types of models, ‘descriptive’ and ‘prescriptive’ (Tapinos et al. 2011).

#### 2.3.1.1 Descriptive Strategy Development Processes

Descriptive models classify various approaches to developing strategy based on observed patterns of behaviour of organisations and as such tend to be rather static representations. An example of a descriptive model is the typology of Miles et al. (1978), which identifies four organisational behaviour types; prospectors, trying to achieve competitive advantage; defenders, trying to maintain a market position; analysers, seeking a niche focus; and reactors, with no defined strategy, reacting to their environment. Other descriptive models include Hart’s (1992) five-type process model (command, symbolic, rational, transactive, and generative), and the Bailey model of six clusters of strategy process configuration - planning, logical incremental, rational command, muddling through, externally dependent, and embattled command (Bailey et al. 2000). The

descriptive models do not explain how strategy is developed or could be developed, rather simply classifying the style of development, and for this reason are not focus to this research.

#### 2.3.1.2 Prescriptive Strategy Development Process

The prescriptive models are concerned more with the activities taking place in the process of developing strategy, in a dynamic manner by practitioners, such as Chaffee's (1985) three-model typology comprising; linear, relating to strategic planning; adaptive, more dynamic in connecting with the environment; and interpretive, even more dynamic and complex, in relating to stakeholders. From study of the 'mainstream' strategic management literature (Handy, 1993; Porter, 1996; Mintzberg and Lampel, 1999; Eisenhardt and Sull, 2001; Johnson et al. 2005; Bryson et al. 2009), and reviews of the literature (Huff and Reger, 1987; van de Ven, 1992; Huff et al. 1992; Hutzschenreuter and Kleindienst, 2006) it becomes apparent that investigating the activities within strategy development is wise, and more importantly that of human activity as part of the process. However, the prescriptive models proposed for developing strategy or for studying the strategy process suggest a linear relationship between the elements and activities of the strategy process (Tapinos et al. 2005a) For contemporary strategy development, there are others who suggest that a formulaic approach may be less appropriate than an interactive approach, as can be seen from the following section.

#### 2.3.1.3 Strategy-as-Practice (SAP)

The origins of this recent stream of literature are in activity theory, where the day-to-day interactions of people socialising within the organisation form the basis of strategy development (Jarzabkowski, 2003; Johnson et al. 2003). This newly emerged Strategy-as-Practice (SAP) stream of literature, as it is termed, which studies the micro-strategising activities within the strategy process, has not yet developed any prescriptive

models. However, in this stream there is a developing consciousness of wider factors influencing strategy development. Regner (2008) explains SAP as being more activity orientated, where an awareness of social-cultural embeddedness, co-evolution, social interaction, inclusion of multiple strategists, and the importance of imagination, all contribute to a more dynamic view of strategising, necessary in contemporary organisations. In a similar manner, Jarzabkowski and Whittington (2008) see SAP “extending strategy research to incorporate the messy realities of doing strategy in practice, with a view to developing theory that is high in accuracy.” They also see the potential benefit of studying the process of strategy development via “such sociological lenses as ethnomethodology, dramaturgy, and institutional theory”. Hodgkinson et al. (2006) from their extensive study note that emergent strategy processes involving and including a wide variety of people at different levels in the organisation and external consultants, which may be part of a planned or regular process, appears to be the current trend. Jarzabkowski and Spee (2009) have recently gone some way towards structuring the concepts covered by the SAP field of study in their comprehensive literature review. Via this review they have developed a typology of nine possible domains of SAP study, using the axes of ‘Level of Praxis’ - micro/meso/macro and ‘Type of Practitioner’ - individual actor in organization/aggregate actor in organization/extra-organizational aggregate actor, as shown in Table 1 below.



Table 1 – Typology of Strategy-as-Practice Research (adapted from Jarzabkowski and Spee, 2009)

Based on the above typology, the SAP field has been dominated by empirical studies in the A, B, D, E area of the matrix (ibid). At the macro level there is a sparseness of literature and most is of a theoretical nature, whilst overall the majority of SAP literature is of an empirical nature, according to this study. Only one item reviewed (Campbell-Hunt, 2007) at the macro level, a theoretical paper, considers complex adaptive systems theory. (This is referred to in more depth below, section 2.5 Strategy Development and Complexity Theories). This review is the closest found to structuring the concepts of SAP, and no SAP model has yet been found in the literature.

#### 2.3.1.4 Strategy Development Process Model

The work of researchers involved in studying systems and processes in a variety of contexts have also contributed to an understanding of strategy development processes (Morecroft, 1984; Lane, 1999; Dyson, 2000; Warren, 2005; Mingers, 2007). Prescriptive

approaches for strategy development, emphasising the systems perspective and holistic management have also been proposed. From cybernetics (control systems) research, Beer (1984) developed his Viable Systems Model (VSM), which explained how some systems are capable of an independent existence (in a social science context) and can form self-organising social groups (organisations). This model was developed over a thirty year period, and was considered as the ‘capstone’ of Beer’s studies by Pickering (2004). The thrust of Beer’s work was “to construct systems (models) that could adapt performatively to environments they could not fully control.” (ibid). Another model has been developed based on the work of Dyson and colleagues (Dyson and Foster, 1980; Dyson and Foster, 1983) which started by identifying the characteristics of effective strategy development and applying the principles of Systems Thinking (Tomlinson and Dyson, 1983) Originally based on a simple control system, with a negative feedback loop to monitor progress, the model was improved with a future view component and an option evaluation mechanism (Dyson, 2000). The latest evolution of this Strategy Development Process (SDP) model (Dyson et al. 2007) is shown here in Figure 2 below and in Appendix 1.



Figure 2 – SDP Model (Dyson et al. 2007)

The SDP model now includes three main components; a future view, to ensure the organisation knows where it is going; a rehearsal component to test and evaluate strategy options; and a control part to monitor progress. As can be seen from Figure 2, it has seven essential elements that are numbered broadly in a sequential manner, but can form iterative loops. These elements are: direction setting, performance measurement, sense-making, creating strategic initiatives, evaluating options, rehearsing strategy, selecting and enacting strategy (implementation). The SDP model provides a systemic view on strategy development highlighting the interdependencies and interconnections between the elements of the process.

### 2.3.2 Strategy Support

The second element of the Strategy Development Theories concerns Strategy Support, where the processes are supported with concepts, models and tools to facilitate strategy

development. Contributions in this field can be divided into two main streams of literature: Strategy tools and Operational Research (OR) tools. The former, strategy tools, are generally relatively simple devices to help clarify the thinking and strategy discussions of practising managers; and the latter OR tools, may be more sophisticated devices often based on ideas developed for complicated operational areas, but found to be potentially applicable to strategy development for practising managers.

#### 2.3.2.1 Strategy Tools

Recent studies (Kettinger et al. 1997; Pidd, 2003; Hodgkinson et al. 2006; Stenfors, 2007; Knott, 2008) have established that strategy tools are regularly used by managers to support their strategic decision making. For example, Hodgkinson et al. (2006) found that the most common strategy analysis tools used were well known and relatively simple. Their popularity seems to be based on teaching these strategy tools in the business schools and on their relative ease of application in practice. The popularity can be seen from Table 2 (below) extracted from the research report.



Table 2 – Strategy Analysis Tools (Hodgkinson et al. 2006)

The extensive use of the above well-known and relatively simple tools by practicing managers may be partially explained by Knott's (2008) in-depth study, based on ten interviews with practicing managers, where 'management fads' and 'tool scepticism' seemed common. He suggests that the tools are used more for facilitation, communication, and for the inclusion of managers in strategy interactions, rather than for their main purpose or analysis.

#### 2.3.2.2 Operational Research (OR) Tools

These tools have been developed mainly by systems and process researchers, and a number of contributions to strategy supporting tools and models have been from this area. Most of the work from this field of study has been at the functional level of the organisation to solve specific operational problems and many useful capabilities, models and concepts have been developed over the years. Checkland (1999) has contributed with his Soft Systems Methodology (SSM), which is a problem solving methodology that links theoretical systems thinking to the real world. SSM has been applied in practical situations in many organisations; for example ICI, the NHS, and ICL (Checkland and Scholes, 1990; Checkland and Poulter, 2006), but mainly in re-structuring operational and support areas for greater effectiveness, than overall business strategy. The Shell Oil Company has made use of SSM, as a means to contribute to the emergent strategy development via a technical support service function (Checkland and Poulter, 2006).

Other notable support tools from this field of study are: Problem Structuring Methods (Rosenhead and Mingers, 2001; Franco, 2007), Systems Modelling (Pidd, 2004), Simulation Models (Kotiadis and Mingers, 2006) and the (Eden and Ackermann, 1998) JOURNEY Making (JOintly Understanding, Reflecting and NEgotiating strategY) framework, which helps explain to, and involve, top managers in their understanding of the organisation's "basic value system" so that a clear, continuous, cyclical, process can



be started. The common thread of all these tools is that they offer the potential to study strategic issues, in an organised and systemic manner, in order to cope with complexity as a negative perturbation to a system, the organisation in its environment. The above methods and models are useful potential strategy support tools for the top management team strategists in their practical development (planned or emergent) of the organisation's strategy, but are seen as devices that form only part of the strategy development process.

The following section focuses on complexity theories, complex adaptive systems theory, and the characteristics of complex adaptive systems, (2.4 Complexity Theories). Then follows a section reviewing the literature that explores both strategy development theory and complex adaptive systems theory (2.5 Strategy Development and Complexity Theories).

#### 2.4 Complexity Theories

Complexity theories developed via the sciences of physics, chemistry and biology, to help explain complex phenomena in many diverse areas, such as meteorology, crystal development and flocking birds (Waldrop, 1992; Lewin, 1993). In the last two decades these theories have been increasingly accepted and applied in the social and business sciences (Lewin, 1993; Rosenhead, 1998; Cilliers, 1998; Arthur, 1999; Phelan, 2001; Maguire et al. 2006). Complexity theories consider the whole system, the parts, the networks, their interconnections and relationships in the processes, mechanisms and systems, and use holistic approaches rather than using reductionist and Newtonian principles to try to understand them. This holistic approach is very attractive to many social/business scientists and also practicing senior business managers, because they have to manage and develop strategies for whole organisational entities at various levels of integration (Eoyang, 2001; Goldstein et al. 2010). The areas of theory discussed here

are focused on human social systems, such as organisations, teams and work-groups, as opposed to communities of animals such as insects or primates.

Some view complexity theories as complexity science, a new science in its own right, encompassing the areas mentioned above (Gleick, 1987; Stacey, 1995; Allen, 2001; Goldstein et al. 2010). Other academics are more sceptical and do not accept the connection between the complexity theories, discovered in the natural sciences relatively recently, and the social sciences and business management studies. They see complexity theories as metaphors for social/business phenomena and not as robust concepts by which to understand them (Rosenhead, 1998; Burnes, 2005).

Gleick (1987), Waldrop (1992) and Lewin (1993) popularised the concept of complexity by summarising many of the observations of others; for example Edward Lorenz's explanation of the 'butterfly effect' as a result of non-linear connectivity in a system, via his studies in meteorology, and Benoit Mandelbrot's discovery of 'fractals', visual patterns as representations of complex mathematical formulas showing infinite layering of emergent order (both cited in Gleick, 1987). Ruelle (1991) explains the complexity features of "sensitive dependence on initial conditions", where the starting point in a development phase of a system can be very significant to the future development of a complex system; this leads to the historical development and evolution, where each stage is influenced by the previous stage and that the whole development process is irreversible. Kauffman (1993) extended this thinking in his studies of the characteristics of chaos and the emergence of order in many in physical, chemical and biological phenomena by seeing similarities in the social and business worlds. Arthur (1989, 1996), from an economics perspective, was one of the first academic researchers to consider complexity and its characteristics in changing the nature of economies and markets, and thereby influencing organisational behaviour and strategy. He observed long term developments in competing technologies and business environments (for

example, diesel and petrol engines in automobiles; audio cassette and video cassette formats; and computer operating systems) seeing that the development of ‘critical mass’ is important for competitive advantage; increasing returns as being valid, and particularly so in high technology industries, requiring constant change and disequilibrium (toward the edge of chaos). Arthur (1999) coined the term “complexity economics” based on the ideas of Joseph Schumpeter (1883-1950), an economist, who was concerned with dynamic and constantly evolving economic processes, rather than the then more conventional views of stability and equilibrium. More recently Augier and Teece (2004) also reflected on Schumpeter’s work when developing their ‘Dynamic Capabilities Framework’ as a basis for strategy development encompassing elements of transactional costs theory (limited and static), and evolutionary ideas development (knowledge bearing and learning).

Snowden’s work on the Cynefin Framework may help with sense making and analysis of organisational environments, in which organisations have to operate. He considers the unordered environment where it may be ‘chaotic’ or ‘complex’ and where patterns can emerge, and compares these to an ordered environment where patterns are more structured and may be ‘simple’ or ‘complicated’. The Cynefin Framework (see Figure 3) includes an area between the four types of environment, which is ‘disordered’ and may be occupied or vacated by any of the other four types of environment as they dynamically interact. It helps explain that ‘complicated’ environments and situations are definable, could potentially be modelled and lead to predictability; whereas ‘complex’ environments and situations are difficult to define, and because of this could only be partially modelled, and can at best be only broadly predictable. The framework is a static representation of a dynamic process in which the ‘shape’ of the environment is continually changing (Kurtz and Snowden, 2003).



Figure 3 – Cynefin Framework (Kurtz and Snowden, 2003)

Based on this model of organisational environments, Snowden and Boone (2007) recognised the inherent uncertainties and unpredictability of environmental changes and organisational adaptation, suggesting a potential contribution from complexity theories. They also considered organisations as complex adaptive systems, within the environmental context they analysed.

This developing understanding of complex systems, builds on the thinking of systems researchers (Weaver, 1948; Boulding, 1956; Buckley, 1968; Beer, 1984; Checkland, 1999) and consolidates the work of these with complexity researchers mentioned above (Ruelle, 1991; Lewin, 1993; Kauffman, 1993; Stacey, 1995; Rosenhead, 1998; Cilliers, 1998; Arthur, 1989, 1996, 1999; Phelan, 2001; Allen, 2001; Burnes, 2005; Maguire et al. 2006). The focus of this study, with regard to complexity theories, is on organisations as human social complex adaptive systems, and their characteristics, and the following section explores these further.

#### 2.4.1 Complex Adaptive Systems (CAS) Theory

Weaver (1948) was one of the first authors to consider ‘complexity’ academically as an influence on the development of science. Boulding (1956), in his explanation of General Systems Theory, devised his 9 level ‘Hierarchy of Complexity’, where level 8 ‘the Social Organisation’ (is the closest to the industrial/commercial/not-for-profit organisation, the appropriate level for this study) is the penultimate most complex concept, the most complex being ‘transcendental systems’. (Appendix 2 summarises Boulding’s Hierarchy of Complexity.) His work was reviewed recently by Jackson (2009), in which he finds that “each level presents emergent properties that cannot be understood simply in terms of the theoretical constructs employed at lower levels, hence the need for new disciplines like psychology, anthropology and sociology at more complex system levels.” He explains further that “Boulding points out gaps in our knowledge, especially our lack of adequate systems models much above level 4 (open systems)” and that at level 7 (people) “Human images are highly complex and, furthermore, have a self-reflective quality – people not only know, they know they know.” Buckley (1968) considered ‘complex adaptive systems’ as a means of extending systems thinking into the social entrepreneurship arena and may have been the first to coin the phrase ‘complex adaptive systems’ in the context of this research. The Buckley article (ibid), examined by Schwandt and Goldstein (2008), considers his work as being an early pioneer in the field of modern social systems, where he “clarifies the complex nature of creating social value in environments characterised by a dependence on reciprocating agent interactions, non-linearity, and the emergence of both anticipated and unanticipated consequences of human actions.” Later, Beer (1984), developed his Viable Systems Model (mentioned above as a prescriptive strategy model in section 2.3.1.4) explaining the self-organising characteristic of some social systems. Self-organisation is considered by some as a core

characteristic of Complex Adaptive Systems(Griffin et al. 1999; Stacey, 2001; Mitleton-Kelly, 2003a; Caldart and Ricart, 2004).

The terminology appears also not yet to have reached general consensus and some describe complex adaptive systems, for example, as ‘complex systems’ (Cilliers, 1998), ‘complex responsive processes’ (Stacey, 2001), ‘complex human self-adaptive systems’ (Eoyang, 2001), ‘complex evolving systems’ (Mitleton-Kelly, 2003a), or ‘intelligent complex adaptive systems – ICAS’(Bennet and Bennet, 2004; Yang and Shan, 2008). Cilliers (1998, 2002) takes a philosophical perspective on the study of complex systems, in his discussion about the differences between simplicity and complexity, and accepts that for both there is no generally agreed definition, nor likely to be. He explains that conventional science, with a reductionist approach, misses the point of complex systems, “because complexity results from the interactions between the components of the system” (Cilliers, 1998). He also explains, in his comparison of the concepts of ‘complicated’ and ‘complex’, that complicated systems behave by sets of rules or laws, which permit potential predictability; but that complex systems are defined by relationships, which are non-linear and unpredictable (Cilliers, 2000a). He argues that for these reasons a postmodern perspective, involving holistic methods, must be the appropriate approach for complex systems; and that complicated systems have the potential of being modelled completely, but complex systems do not. Complex systems cannot be modelled, because “since they are nonlinear, no set of interactions can be represented by a set (a model) smaller than itself; superposition does not hold. This is one way of saying that complexity is not compressible” (Cilliers, 2000b). This view is supported by theories from the area of cybernetics and control systems, such as Ashby’s law of requisite variety(Ashby, 1956), by Bonini’s paradox (1963), “as a model of a complex system becomes more complete, it becomes less understandable”, cited in

Dooley (2002), and by the work of Beer (1984) in studying how to control social systems and discovering how some social systems can self-organise.

Stacey's (2001) view of complex systems is sceptical of systems thinking ideas and more closely aligned to the social interactions of people. His arguments include "most systems theories envisage the systematic unfolding of that which is already enfolded, usually by a designer, in the system itself. They offer the prospect of control from outside the system." (ibid). He argues "the 'system' does not provide an analogy for human action but that the 'process of interaction' does" (ibid). Stacey makes his point more forceful by referring to complex adaptive systems as complex responsive processes, the responsive processes being the interactions between people in organisations, thereby replacing the focus on a system by a focus on processes.

Mitleton-Kelly (1997) is similar to Stacey in being more interested in the social interactions of people, but also takes her position towards the learning, changing and evolving of both people in the organisation and the organisation itself, resulting in co-evolution. Her earlier descriptions of organisations as complex adaptive systems she termed 'co-evolving complex adaptive systems' (ibid), but later adopted the term complex evolving systems (Mitleton-Kelly, 2003a). In doing this she does not go as far as Stacey in distancing herself from systems thinking, by recognising organisations are systems, but she goes further than Stacey in terms of people interactions, where people and organisations not simply respond to each other, but develop and co-evolve (ibid).

The most common term mentioned in the literature appears to be 'complex adaptive systems' (CAS) and this term is used in this research. The core of the debate represented here by Cilliers (1998, 2000a, 2000b, 2002), Ashby (1956), Bonini (1963), Beer (1984), Stacey (2001), and Mitleton-Kelly (1997, 2003a) is to do with understanding organisations as systems comprising people, which may behave according to theories about systems developed from non-human origins; and, the understanding of

organisations as groups of people that interact and relate to each other in patterns that may have systemic characteristics.

The researcher's position is closer to the social interaction end of the spectrum, as represented by Stacey (2001) and Mitleton-Kelly (2003a), than the systems end, and considers any human social system, such as an organisation, as a complex adaptive system, because human social systems are capable of independent, spontaneous, self-organisation and evolution, offering opportunities and threats to organisation managers (Kauffman, 1995; Eoyang, 2001; Caldart and Ricart, 2004). A number of authors have analysed complex adaptive systems and compiled characteristics, structures, properties and principles in an effort to explain them better. In the following section these characterisations are explained and compared.

#### 2.4.2 CAS Characteristics

By making use of complexity theories, some authors have managed to identify certain characteristics of complex human social systems that may help with understanding organisations better (Mitleton-Kelly, 1997, 2003; Cilliers, 1998; Stacey, 2001; Tower, 2002).

Further analysis of the works of the authors that have studied CAS in detail follows, in an effort to understand the component parts of such systems and how they interact. From this, it is apparent that there is no precise agreement on the characteristics of complex adaptive systems, but very clear general agreement. The few authors that have attempted to characterise CAS also use different terms for the component parts. Buckley (1968) uses the word 'principles', Cilliers (1998) 'characteristics', Stacey (2001) uses both 'structural' elements and 'properties', Eoyang (2001) 'variables', Mitleton-Kelly (2003) 'generic principles of complexity', and Snowden and Boone (2007) 'characteristics'. For this research, use will be made of the term 'characteristics' to explain the component parts of complex adaptive systems.



Buckley (1968) was one of the first authors that tried to explain CAS, when considering social systems. From his background in systems thinking and his studies of information theory and cybernetics (control systems) he recognised shortcomings in systems theories that could not adequately explain how people behave in society and within social systems. To improve upon this he derived six main principles of complex adaptive systems applied to (human) social systems, which are explained below:

1. *“The principle of ‘irritability of protoplasm’ carries through to all higher level adaptive systems”* With this he means there are tensions, stress, strain and energy in social groupings, where “Man is always trying to live beyond his means” to progress. In Buckley’s view this provides the continual drive for change, improvement and adaptation to circumstances.
2. *Morphogenesis* is the second principle, where for socio-cultural systems a steady state in equilibrium is impossible and a new concept is needed to capture the idea of “structure-maintaining” and “structure-elaborating and changing” within an unstable system, which is itself within an ever changing environment. This also means a constant dynamic balancing process within the system between striving to maintain a manner of operating and striving to adjust, improve and adapt.
3. *Pattern re-organisation and change* in the maintenance of the system’s “essential variables”; meaning the components (people), structures, and relationship variables, balancing between a maintenance of pattern (in behaviour) and development (progress). This in effect is a process of continuous varying interaction, where there is two-way communication (dialogue) within, and external to, the organisation, of constantly changing quality and significance between people, varying in number, regularity and duration of interactions.
4. *Balance of control and self-regulation with “the crucial role of deviation, seen in both positive and negative aspects”* were socio-cultural systems interact

internally and externally, adapting (with positive and negative feedbacks), creating, learning, where only variety can create variety.

5. *Social self-selection and preservation of the possible varieties*, where socio-cultural systems of the higher order (people and organisations) adapt not merely by natural selection, but by social self-selection in their structures and relationships as they learn from past experiences.
6. *Socio-cultural selection of structure and processes as a continuous morphogenic process with cultural aspects*, where the people characteristics of social needs and interactions, personality and meanings (intellectual dimension) play an important role.

Thirty years later, Cilliers (1998) in his studies of complexity in human social systems from a philosophical perspective and in a postmodern society, identifies ten characteristics. These are explained below:

1. *Complex systems consist of a large number of elements*. The elements are human individuals. Buckley (1968), in his list, does not mention specifically the number of elements. This is implied by his third principle in his explanation of “essential variables”, meaning the components (people) of the system.
2. *The elements in a complex system interact dynamically*. Individuals are continually interacting, and as such “the individual is constituted by its relationship to others.” Buckley (1968) refers to this as “morphogenesis”, in his second principle, where he expands this continual interaction characteristic, with a balancing force that simultaneously tries to stabilise the system.
3. *The level of interaction is fairly rich*. Human individuals interact in a great variety of ways. Buckley (1968), in his sixth principle implies this characteristic with his mention of people characteristics, meaning the intellectual needs of people to interact socially.

4. *Interactions are non-linear.* Non-linearity is important, as an indicator of a complex system, and also for enabling self-organisation and dynamic adaptation to other people and the environment. Buckley (1968) discusses non-linearity, but does not explicitly refer to it in his six principles, although his third principle of “pattern re-organisation” implies non-linearity in the people behaviour in the social system.
5. *The interactions have fairly short range.* Individuals interact primarily (but not exclusively) with those around them, leading to clusters and group forming. The behaviour of the complex system is thus formed by a multiplicity of local group interactions. This aspect is not specifically mentioned by Buckley.
6. *There are loops in the interconnections.* Feedback is essential and normal in complex systems, which can be both via negative and positive feedback loops, and very complex. “Not feedback as it is understood simply in terms of control theory, but as intricately interlinked loops in a large network.” (Cilliers, 1998). This interconnection of feedback loops means that people can either directly or indirectly influence themselves (as well as others) leading to problems with the interpretation of information as being ‘true’. From his control systems background, it seems clear that Buckley (1968) was well aware of feedback loops in social systems, as shown by his fourth principle “balance of control and self-regulation”, where he recognised the “crucial role of deviation”, both positively and negatively influencing the system.
7. *Complex systems are open systems.* The local interactions mentioned above (5), are open to interactions with other local interactions, both internal to the complex system (organisation) and external (the market and community), and also to the ecosystem. Thus, the CAS influences the ecosystem, and the ecosystem the CAS. Buckley’s (1968) third principle of “pattern re-

organisation” also takes into account interconnections with the external environment.

8. *Complex systems operate under condition far from equilibrium.* Activity and energy are needed for change and evolution. “Equilibrium, symmetry and complete stability mean death” (entropy leading to atrophy). Buckley (1968) in his first principle of “irritability of protoplasm” sees the need for instability as essential to progress of any “higher order system”, such as a human social system.
9. *Complex systems have histories.* This is not an objective description of what has happened, but active links to the past, which influence the present and the future, “and is always open to multiple interpretations”. In his fifth principle, “social self-selection and preservation”, Buckley (1968) explains that people learn from past experiences, and as such their histories and backgrounds are very important both for maintaining an element of status quo, but also a need for change and development.
10. *Individual elements are ignorant of the behaviour of the whole system in which they are imbedded.* Individuals, because of the characteristics of local interactions (5) and rich interactions (3), “cannot contain the complexity of the whole system and can therefore neither control nor comprehend it fully” (Cilliers, 1998). This characteristic does not appear to be considered by Buckley.

[The numbered characteristics do not signify any particular rank, sequence or importance.]

In a later work, Cilliers (2000a) summarised the above into seven general characteristics, which are closely aligned to the above ten characteristics, with some characteristics combined. At the same time he explained that certain systems (organisations) may

display some of these characteristics more prominently than others. From the above, it appears clear that Cilliers (1998) explains CAS in terms of connective elements and how the interactions take place, with little explanation of how patterns of behaviour emerge.

Stacey (2001) considers CAS as complex responsive processes and explains them via structural elements and properties. The structural elements are:

- *The system comprises large numbers of individual agents.* This element refers to the number of people and the number of relationship connections in the system. Cilliers (1998) is specific about the number of human individuals as the number of elements, and implies the number of connections in his second characteristic “the elements in a complex system interact dynamically.” Stacey’s (2001) focuses on the interconnections and relationships, between the people in the social system, as the structural parts of the process of interaction. This is very similar to, Cilliers’s (1998) explanation that “the individual is constituted by its relationship to others.”
- *The agents are (each) a set of rules that determines how that agent will interact with a number of others.* The interactions are local, with no system-wide set of rules determining interaction. The agents are thus individuals with their set of rules for interaction. Cilliers (1998), in his fifth characteristic “interactions have fairly short range”, recognises the local/remote aspect of interconnections, but does not explicitly mention patterns of behaviour, as Buckley (1968) does.
- *Agents endlessly repeat their interaction, which is iterative, recursive and self-referential.* There are continuous varying interactions among individuals. Stacey (2001) explains the interaction more concisely using one structural element here, while Cilliers (1998) uses four characteristics to explain them; 2.

Dynamic and continuous interactions, 3. Rich interactions, 4. Non-linear interactions, and 5. Short range interactions with wider influence.

- *There is on-going variety in the relationship rules*, which is generated by random mutation and cross-over replication. This means that there is constant adaptation to (and co-evolution with) each other, where both equilibrium and change (progress) are sought. This structural element is very similar to Buckley's (1968) third principle "pattern re-organisation", a characteristic that Cilliers (1998) does not explore explicitly.

The properties are:

- *Coherent patterns of order will emerge from spontaneous self-organisation of the agents as they act according to local rules, constituting 'attractors'*. Stacey (2001) explains that the interactions form a pattern, which attracts more agents to co-evolve in a similar manner. This is again very similar to Buckley's (1968) third principle "pattern re-organisation", but Stacey (2001) focuses on spontaneity and the attraction effect, forming 'attractors', influencing other agents, while Buckley (1968) sees this as a systemic continuous dynamic process and does not identify 'attractors' as emergent pattern changing agents.
- *Attractors can take on a number of different dynamic forms and be stabilising and de-stabilising*, so that they can initiate positive or negative behaviours in (parts of) the organisation. Stacey (2001) here and in the next two property elements, pays attention to how a pattern emerges in behaviour, via the development of attractors, while Cilliers (1998) and Buckley (1968) pay more attention to continuous varying dynamic interactions.
- *Under certain circumstances attractors can become simultaneously stable and unstable*. Hock (2005) defines this as 'chaotic', being "the behaviour of any self-organizing and self-governing organism, organization or system that

harmoniously blends the characteristics of chaos and order", in his explanation of the development of the financial services organisation Visa International, of which he was the founder and CEO. Such organisations tend to develop unconventional structures, business models and ways of operating (ibid).

- *With diversity and variety, novel attractors can emerge spontaneously.* This is “radically unpredictable”, in both time and space.

Stacey (2001) explains CAS both with structural elements comprising people and relationships, continuously interacting in behaviour patterns that act as rules of behaviour emergence; and with property elements, which explain how patterns emerge via attractors.

Eoyang (2001), from her PhD Thesis “Conditions for Self-Organizing in Human Systems”, identified six variables:

- *Non-linear causality* – the relationship of the parameters or “driving variables” defining the CAS are non-linear, in that the changes resulting from an interaction between the variables can be of an unpredictable magnitude. Here Eoyang (2001) combines a number of characteristics that are considered separately by Cilliers and Stacey, mentioned above.
- *High dimensionality* – human complex systems can be understood in terms of a large number of inter-related variables (relationships). This variable includes the number of people and their relationships as explained by Cilliers (1998) and Stacey (2001)
- *Dependence on context* – CAS are intimately related to their environments. Eoyang (2001) explains here the connectedness and the mutual influence of the CAS to the environment, in a similar manner to Cillier’s (1998) explanation of

CAS being open systems, and Buckley's (1968) third principle of "pattern re-organisation" and interconnections to the external environment.

- *Discontinuous change* – change occurs in and around the CAS but its continuity is unpredictable (reflecting order and chaos, stability and instability). In contrast to Buckley (1968), Cilliers (1998) and Stacey (2001), where they explain CAS continuously changing, to counter stability, equilibrium and stagnation, Eoyang (2001) considers discontinuous change, reflecting uncertainty and unpredictability in the patterns of behaviour.
- *Sensitive dependence on initial conditions* – the initial situation of the CAS, and therefore the background and histories, can have significant influence on its development. This is very similar to Buckley's (1968) fifth principle, where history and backgrounds of people are very important; and Cillier's (1998) ninth characteristic, where CAS have active links to the past, thereby influencing current and future actions.
- *Massively entangled layers* – CAS involve multiple levels of structuration, where each level may influence other levels and the whole. Eoyang (2001) explicitly mentions that CAS can have sub-CAS and also be part of larger CAS, thereby multiplying the complexity and interconnectedness involved with this variable. Neither Buckley (1968) nor Stacey (2001) explicitly mention open systems and the possible multiple levels, and connectedness of the levels, of CAS. Cilliers (1998), with his seventh characteristic, does explain open systems, explaining the connectedness with the environment, and internally within the CAS. Similarly, Caldert and Oliveira (2007) mention in their discussion of how the organisational complexity of the firm affects the strategy development process, "a complex system possesses a structure spanning several scales", meaning the hierarchical



levels of the firm, and consequently the various functions within the organisation, and within each function.

It is apparent that Eoyang (2001) has a broadly similar view of CAS to the other authors mentioned here, but also has a wider perspective in seeing the multiple levels of interconnected CAS.

Mitleton-Kelly (2003) explains the five main areas of research that form the background to her studies as being from the natural sciences: dissipative structures – chemistry/physics (Prigogine), CAS – evolutionary biology (Kaufmann), autopoiesis (self-generation), biology/cognition (Maturana), chaos theory (Gleick) ; and from the social sciences – increasing returns – economics (Arthur). Based on these are her ten generic principles of complexity, the first four of which “are familiar from systems theory” (Mitleton-Kelly, 2003):

- *Emergence* – order emerges spontaneously from relative chaos
- *Connectivity* – all agents are connected, thereby influencing each other
- *Interdependence* – the connectedness leads to mutual dependence upon other agents
- *Feedback (positive and negative)* – loops of feedback as explained also by Buckley (1968) and Cilliers (1998).

The six other principles are:

- *Self-organisation* – with emergence, creation of new order is possible and these are key characteristics of CAS. This principle encapsulates Buckley’s (1968) fifth principle “social self-selection and preservation of the possible varieties”, his sixth principle “socio-cultural selection processes”, and Stacey’s (2001) property elements of “coherent patterns of order will emerge” and “with diversity and variety, novel attractors can emerge spontaneously”.

- *Far-from-equilibrium* – with history (backgrounds, origins) and open to connections with an ever changing environment, the CAS can move away or towards far-from-equilibrium (chaos); where the move away (from chaos) leads to the emergence of stability, and the move towards (chaos) leads to emergence of instability, thereby creating a new order and a new situation. This principle is very similar to Cillier’s (2001) eight characteristic “complex systems operate under condition far from equilibrium”.
- *Space possibilities* – where people can imagine new and different possibilities (positive or negative) and adapt existing conditions, termed ‘exaptation’. This characteristic reflects Buckley’s (1968) fourth principle “balance of control and self-regulation with the crucial role of deviation, seen in both positive and negative aspects”.
- *Co-evolution* – with connectivity, where people and the organisation evolve together. This principle is similar to Stacey’s (2001) structural element of “there is on-going variety in the relationship rules”, where co-evolution plays an important part.
- *Historicity and time* – origins and backgrounds are important and will affect current and future opportunities and threats. Cilliers (1998) with his ninth characteristic “complex systems have histories”, and Eoyang (2001) with her variable of “Sensitive dependence on initial conditions” agree that the past cannot be ignored, but may not predict the future.
- *Path dependency* – where previous decisions and choices lock in or out future decisions and choices. Teece et al. (1997) and Greener (2002) explain this principle in their studies of strategic management, where the historic decisions of an organisation can make a significant impact of later decisions; such as past investments leading to unproductive assets, and early leads in technical

innovation can give significant market advantages, in the organisation, its customers, suppliers or competitors. This principle is closely related to the above 'historicity and time' principle and is also considered implicitly by Cilliers (1998) and Eoyang (2001).

It is clear that Mitleton-Kelly (2003) has a similar concept of CAS characteristics as the above authors, but also makes the explicit link between the work of systems thinkers and the social aspects of the behaviour of people.

Snowden and Boone (2007) identify six characteristics of complex systems:

- *A large number of interacting elements*
- *Non-linear interaction of the elements*
- *The system is dynamic* – where solutions emerge and cannot be imposed.
- *The system has a history, with the elements (co-)evolving with each other and the environment* – evolution is irreversible.
- *Hindsight does not lead to foresight* – because the system and external conditions are constantly changing.
- *The agents (within the system) and the system constrain each other* – so that outcomes cannot be predicted.

Reviewing Snowden and Boone (2007) it seems clear that they do not go into great depth of analysis to arrive at their CAS characteristics. Their list appears to be a summary of the previous authors.

Comparison of the above six groupings of characteristics (Buckley, 1968; Cilliers, 1998; Stacey, 2001; Eoyang, 2001; Mitleton-Kelly, 2003; Snowden, 2007) shows a high degree of congruence between them. They are very similar lists, which support rather than contradict each other. Appendix 3, CAS Characteristics compares and summarises the

six groupings of CAS characteristics found from the above section, and highlights the similarities and differences.

Further analysis and synthesis of the thinking behind the groupings of characteristics and the lists themselves follows in the section below, explaining the development of the ‘CAS Lens’.

#### 2.4.2.1 CAS Lens

Complexity lenses have been used in a number of recent organisational studies, for example Kelly (1999), a practitioner, studied Citibank’s IT/IS (information technology/information systems) strategy; Figueredo (2007) used a complexity lens for a Spanish company case study; and Ramalingam et al. (2008) studied an overseas development project. However, these studies made only general use of the concepts of complexity theories, with no particular focus on CASs, or detailed articulation of an in-depth understanding of CAS characteristics.

For this research, a lens was developed with attention paid to the characteristics explained in the above section (2.4.2 CAS Characteristics) and summarised in Appendix 3. Analysis of this comparison table and the background information shows the following main points:

- Cilliers (1998), Stacey (2001), and Mitleton-Kelly (2003) closely agree on the characteristics that comprise; a large number of people and/or relationships, which are continuously, dynamically interacting, where there are rich, local and non-linear interactions, and where there are changes, feedbacks, relationships ‘rules’, and co-evolution occurring.
- Stacey (2001) and Buckley (1968) generally agree that the characteristics that represent peoples’ relationship rules of behaviour, the development and continuous change of these, with behaviour patterns that balance a preservation of

order (to match the rules), with spontaneous emergence of ‘attractors’ (newly developing behaviour rules) based on positive and negative feedback loops, constituting learning and creativity.

- Cilliers (1998) and Mitleton-Kelly (2003) agree that CAS can operate in conditions far-from-equilibrium and towards chaos. Cilliers (1998) also mentions that operating towards far-from equilibrium provides the necessary activity and energy for change, where the opposite, “entropy can lead to atrophy”, and Buckley (1968) also recognises the positive aspects of tension and “irritability” in the CAS providing the drive for change.
- Only Cilliers (1998) explicitly mentions the characteristic of “whole system ignorance”, where the CAS is too complex and dynamic for any one person or group to control or comprehend fully. This is caused by the local and rich interactions. McKelvey (2004) in his review of Cillier’s (1998) work, supports this view, because the interconnectedness is fragmented, dynamic and non-linear (not uniform connectivity, static, and with equal relationship values).
- The characteristic of self-organisation is recognised by Buckley (1968) as ‘self-regulation’ and ‘self-selection’; by Stacey (2001) as ‘spontaneous emergence’; and is explicitly mentioned by Mitleton-Kelly (2003) as a key characteristic. The other authors embed implications of the concept of ‘self-organisation’ in their work. Caldart and Oliveira (2007) see emergence and self-organisation as the specific focus of complexity theories as they impact strategy development, and cite examples of the development of black markets, and emergent shift in the DRAM memory business to microprocessors at the electronic components company Intel, initiated by middle management and adopted by top management. They interpret self-organisation in an organisation as “the process of political

interaction and group learning from which innovation and new strategic directions may emerge” (ibid).

- There is no significant disagreement of any particular characteristic in the above analyses of these authors. The differences that do exist appear to be nuances in understanding, or articulation of the understanding of the characteristic, and where some aspects of the characteristic are included in another characteristic.

Based on the analysis of CAS characteristics, resulting in a broad general agreement among the work of the authors studied, a synthesis and summary of the characteristics was compiled, as follows:

- A. Large numbers – of people and/or their relationship connections
- B. Continuous interactions – endless dynamic interactions, both internally and externally with the organisation.
- C. Rich interactions – human individuals interact in a variety of ways, continually adapting to each other.
- D. Non-linear interactions – individuals react differently to interactions, causing unpredictable effects.
- E. Local and remote – individuals interact primarily with those local to them, leading to group and network forming, but remote connections can exist, which may be important, because of the non-linearity of the interactions.
- F. Positive and negative feedbacks – both developmental (positive) and constraining (negative) feedbacks loops can occur within the interactions.
- G. Relationships co-evolve – to do with interconnectivity, where people and the CAS communicate, interrelate, develop, adapt and co-evolve together.
- H. Connected open systems – individuals and the CAS are open to other systems, the environment in which the organisation operates, including the ecosystem.

- I. Stable and far-from-equilibrium – CAS can operate towards chaotic environments, which may provide the energy and need for change.
- J. People and CAS have histories – previous background and experiences can influence current and future behaviour.
- K. Whole system ignorance – no one person or group can fully comprehend the CAS, because of the dynamic complexity.
- L. Space possibilities – because people can reflect, learn and create, so that opportunities and threats can be explored.
- M. Patterns emerge – as people interact according to behaviour rules that become accepted, patterns of behaviour emerge, developing and changing continuously.
- N. Chaotic, orderly and ‘chaordic’ patterns – behaviour patterns can become stable or unstable (and possibly both chaotic and orderly, simultaneously, termed ‘chaordic’).
- O. Unpredictable pattern origins – where, when, and the duration of the pattern emerges is impossible to predict accurately.
- P. Self-organisation – the spontaneous emergence of patterns of order leads to self-selection, self-regulation and self-organisation within the CAS.

These 16 synthesised characteristics of CAS are not discrete elements. They all interact and connect together in a non-linear manner, operating holistically.

The CAS lens was developed by further study of the 16 synthesised characteristics, with particular reference to the works of the authors mentioned above, (Cilliers 1998, 2000a, 2000b, 2000c, 2002; Stacey 1995, 2000a, 2000b, 2000c, 2001, 2007; and Mitleton-Kelly 1997, 1998, 2003a, 2003b, 2004, 2005), because of their recent empirical and theoretical work in applying CAS theories to organisations. Based on this, the list of characteristics was further analysed, synthesised and distilled resulting in three groupings plus one underlying characteristic of the synthesised 16 CAS characteristics. As a reminder, these

characteristics are not discrete elements that form part of a mechanical system, they are characterisation elements of a holistic human social system, where the boundaries of the characteristics are vague, fuzzy and varying, and their characterisation and analysis is a means to understand the behaviour of the whole CAS. Bearing this in mind, these groupings and the underlying characteristic that comprises the CAS lens, with its four facets is summarised diagrammatically in Figure 4 on the next page, and also appears as Appendix 4.

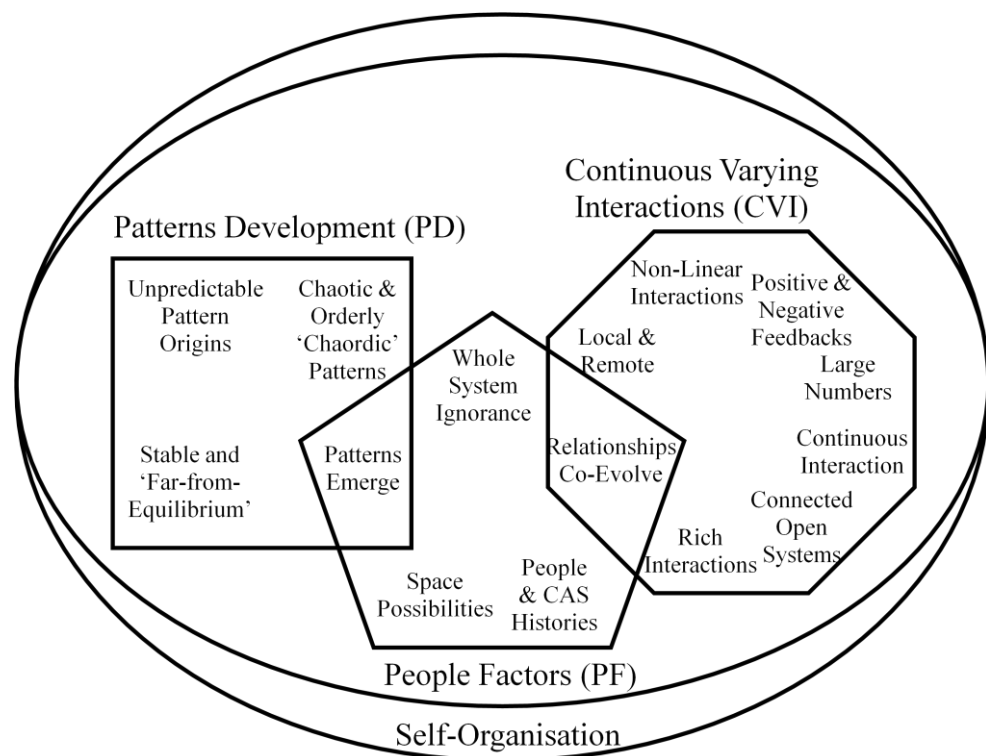


Figure 4 - CAS Lens

The first group of characteristics is:

1. Local and remote ('E' from the list of 16 synthesised characteristics, above) – the richest interactions between people usually occur locally within the relationship network of the organisation, but influences can be far reaching, and remote connections may be important due to non-linearity [see below] (Cilliers, 1998; Stacey, 2001; Barabasi et al. 2002; Mitleton-Kelly, 2003a).



2. Non-linear interactions (D) – unpredictable cause/effect relationships. Small actions can have big effects, big actions can have minimal effects and this cannot be predicted. In some contexts this is known as the ‘butterfly effect’ (Cilliers, 1998; Stacey, 2001; Mitleton-Kelly, 2003a).
3. Positive and negative feedbacks (F) – both can exist within the system, being developmental [positive feedbacks] and restraining [negative feedbacks] (Cilliers, 1998; Mitleton-Kelly, 2003a).
4. Large numbers of elements (A) – some authors refer to the number of people and some to the relationships between people (the latter number being far greater) and others are not specific as to either or both (Cilliers, 1998; Stacey, 2001)
5. Continuous interaction (B) – endless, repeating and dynamic interaction between people [communication within, and external to, the organisation] (Cilliers, 1998; Stacey, 2001)
6. Connected open systems (H) – CAS are open systems, and they can be passive or active in their interactions with other CAS, which can be at various levels of integration within and external to the organisation (Cilliers, 1998; Mitleton-Kelly, 2003a)
7. Rich interactions (C) – high to low quality, changing, developing, iterative and self-referential [concerning the quality of interaction] (Cilliers, 1998; Stacey, 2001; Mitleton-Kelly, 2003a)
8. Relationships co-evolve (G) – the above produce on-going variety in the relationship ‘rules’ [includes traditions, customs and organisational ‘culture’ influences] as people and the CAS develop and co-evolve (Stacey, 2001; Mitleton-Kelly, 2003a).

The above eight characteristics form the first facet of the CAS lens and are classified here as elements of ‘Continuous Varying Interactions’ (CVI), because they are to do with the type of relationships within and around the organisation, in an effort to understand the structural, system and processual aspects, operating dynamically . These characteristics are judged as being similar to the Kauffman (1993) NK(C) model, where N = number of system actors (people, in terms of CAS), K = relationships, as linkages between the actors, and C = connectedness, meaning quality of relationship; to the “structural properties and embedded routines” explained by Eden and Ackerman (1998) and Levinthal and Warglien (1999); and the holistic view of the organisation, as explained by Senge (1990). There are also links between these systemic and processual aspects to the nascent social network theory of human actors in and around organisations (Barabasi et al. 2002). This CVI facet of the lens attempts to encompass these eight characteristics to focus the attention on the dynamic and constantly evolving processes of people interactions in the strategy development of the CAS.

The second group of characteristics is:

1. Patterns emerge (M) – coherent patterns of order emerge spontaneously [and become ‘attractors’, which may develop the pattern further, expanding their influence on the CAS] (Stacey, 2001; Mitleton-Kelly, 2003a)
2. Stable and far-from-equilibrium (I) - CAS can cope, adapt, survive and prosper in periods of (relative) turbulence [sometimes known as ‘far-from-equilibrium’], where stability is not a requirement for progress and could lead to atrophy (Cilliers, 1998; Mitleton-Kelly, 2003a)
3. Unpredictable pattern origins (O) – from where and when and their duration is unpredictable (Stacey, 2001).

4. Chaotic, orderly and ‘chaordic’ patterns, and ‘attractors’ (N) - can be stabilising [orderly], de-stabilising [chaotic] or both simultaneously [‘chaordic’ (Hock, 2005)] (Stacey, 2001).

The above four characteristics form the second facet of the CAS lens classified as ‘Patterns Development’ (PD) elements. This lens facet encompasses characteristics that are judged to be important qualitative aspects of the continuous varying interaction of the CAS, allowing focus on the way the interactions form into patterns of behaviour. These characteristics reflect the observations and explanations of Mintzberg (1978), where he suggests that a possible definition of strategy as being “a pattern in a stream of decisions, seen retrospectively”; Evered (1983) whose 12 elements of strategy includes “whole pattern” as the fourth element; and, Mintzberg’s (1987) “Pattern” as one of his 5-Ps of strategy. Weick (1995) also considers “pattern development” and “pattern recognition” in an effort to understand how organisations behave; and, Jarzabkowski and Wilson (2002) explain “patterns of action”, which comprise “pattern development”, “pattern emergence”, and “pattern recognition” as possible predictors of future actions.

The third group of characteristics is:

1. Whole system ignorance (K) – no one person within the CAS can have complete knowledge of the CAS, because it is too complex and dynamic, which contributes to risks and uncertainties that affect people and organisations (Cilliers, 1998).
2. People and CAS have histories (J)– origins and histories of development are very important, of both people and the CAS, because development options can be preferred [and possibly locked-in or out] influencing option choices available for future actions [in some contexts known as Path Dependency (Greener, 2002)] (Cilliers, 1998; Mitleton-Kelly, 2003a).

3. Space Possibilities (L) – CAS can explore the ‘space’ (and time) possibilities into which it can develop by adapting existing conditions, because people can think, learn, imagine and make decisions (Mitleton-Kelly, 2003a).

The above three characteristics, plus ‘relationships co-evolve (G)’ the eighth characteristic from Continuous Varying Interactions (CVI), and ‘patterns emerge (M)’ the first characteristic from Patterns Development (PD), form the third facet of the CAS lens, classified here as ‘people factors’ (PF) because they are more specific to human social systems (organisations). The ‘relationships co-evolve’ characteristic, in this context, has two aspects; the system aspect of linkages between elements in a system (Kauffman, 1993) and the people aspect of social network theory (Barabasi et al. 2002). In a similar manner, the ‘patterns emerge’ characteristic, has two aspects; the complexity theory aspect of emergence of order from (relative) chaos Holland (1998) and the emergence of people behaviour in an organisation (Mitleton-Kelly, 2003a). This third lens facet (PF) also has connections to the intuition process element of strategy development considered important by (Miller and Ireland, 2005).

Because of the above characteristics, CAS or parts of them can, and do self-organise spontaneously (Boulding, 1956; Buckley, 1968; Beer, 1984; Griffin et al. 1999; Stacey, 2001; Mitleton-Kelly, 2003a; Caldart and Ricart, 2004; Snowden and Boone, 2007).

This self-organisation characteristic (‘P’ from the list of 16 synthesised characteristics) underlies the others mentioned above, and forms the fourth facet of the CAS lens (SO). Self-organisation is ever-present in the background of the CAS, waxing and waning in importance, as internal and external factors continually change. The ‘loose/tight’ properties of management control explained by Peters and Waterman (1982) may affect the self-organisation characteristic. Similarly, the aspects of politics, power and organisational culture, may also affect self-organisation, but these are not focus to this research.

## 2.5 Strategy Development and Complexity Theories

Complexity theories have been embraced as yet by only a few strategists as being potentially useful and only relatively recently, but increasingly more are focusing on the area. Price and Kennie (1997) explored the theories of complex adaptive systems in relation to organisations and state that “the theory of complex adaptive systems is granting legitimacy to a new paradigm of organisations; one that replaces the metaphor of the organisation as an organism with the literal assertion that both social organisations and organisms are classes of complex systems.” (Caldart and Ricart, 2004) recognise that the recent interest in complex systems applied to organisations can “shed light on the long-lasting but stalled debate on corporate strategy (development)”. They describe the characteristics of complex systems, and compare them to the components of developing strategy and note their similarities, resulting in the conclusion that “this theoretical approach (via complexity theory) offers very promising avenues for improving our formal understanding of social processes (in the organisation). Similarly, Pettigrew et al. (2006) with their thorough review of strategic management, in which there are strong references to complex systems characteristics, take the view that “strategy research may be at the point of breaking free of the constraints of its origins in the modernist social sciences of the mid 20<sup>th</sup>. century...(and) will admit holistic analysis...now it will seek change and action”.

Campbell-Hunt (2007) asserts that ‘Strategy-as-Practice’ (SAP), the recent and nascent area of strategy development literature explaining social interactions as central to strategy development, should embrace CAS theory “this domain (SAP) can be substantively and literally represented as a complex adaptive system. Complexity gives access to a considerable body of theory on the emergent orders that may arise from social practice and on the evolution of social order over time.” With this he makes a link between complexity theories and strategy development, via CAS theory and SAP.

Stacey (1993, 1995, 2000, 2001, 2007) was one of the first authors to explore and embrace complexity theories and strategy development explicitly, via consideration of strategy emerging from the relative chaos of understanding, managing and changing organisations in ever increasing complex business environments. As mentioned earlier he also focused on organisations as complex responsive processes (as opposed to CASs), to explain the dynamic responsiveness needed by organisations within the contemporary business environment. Maguire and McKelvey (1999), see complexity theories as potentially firm foundations for management studies, if rigorous research methods can be assured. Griffin et al. (1999) have studied the self-organisational aspects of complexity as a way of combining knowledge and actions in times of uncertainty. A number of others have recently focused on complexity theory and strategy from varying aspects; Kurtz and Snowden (2003) see complexity theories as offering new ideas in the increasingly complex world of business; McKelvey (2004) has considered complexity theory and entrepreneurship; Holmdahl (2005) complexity theory and strategy; and, Camillus (2008) considering strategy as a wicked problem (in which the characteristics of such problems are very similar to CAS characteristics). Despite a body of literature accumulating, that advocates exploration of complexity theories for organisational and strategy development, as represented by the above authors, there are others reluctant to contemplate complexity theories.

(Midgley and Richardson, 2007) have written about the co-evolution of systems thinking and complexity thinking and conclude that “there are several interacting research communities (including those researching complexity, systems thinking and cybernetics) working in this area that have the potential to learn from each other”. Despite the many years of consideration of complexity theories by the OR and systems thinking research community, as support for strategy development, the practical application of complexity theories at top management level is relatively new. This could be caused partially by the

heterogeneity of training routes, backgrounds and experience of top-level managers (Hodgkinson et al. 2006; Stenfors, 2007), or “management fads” and “tool scepticism” (Knott, 2008) mentioned earlier. For some there are concerns about the need for ‘hard’ empirical evidence and others about the theoretical uncertainties of complexity theories applied to social systems. Rosenhead (1998) asserts that complexity theories require mathematical confirmation, but such confirmation is only possible for partial representations of complexity concepts, via simulations and formulas. However, he is aware that CAS cannot be completely modelled, acknowledging the work of Cilliers (1998), for example, so can only accept complexity theories as metaphors or at best analogies for social systems. Burnes (2005) similarly requires firm confirmation as shown by his view that “even in the natural sciences, the complexity approach is not fully developed or unchallenged, and that, as yet, organization theorists do not appear to have moved beyond the stage of using it (complexity) as metaphor rather than as a mathematical way of analysing and managing organizations”. Jackson (2009) in his recent paper on “Fifty years of systems thinking for management”, acknowledges the recent interest in complexity theories, but asserts that “Complexity theory transferred to social systems is, if anything, even more theoretically uncertain”. He cites Cilliers (1998) use of post modernism as his paradigm and Stacey’s (2000) use of the interpretive paradigm as examples of incoherence in the basis of complexity theories, thus reducing them to “fashionable twists to existing theories”.

It seems clear that there are several authors exploring new areas in strategy development, an area that has perhaps until recently been stagnant (Caldart and Ricart, 2004; Pettigrew et al. 2006). The SAP literature stream is developing momentum (Jarzabkowski, 2003; Regner, 2008; Whittington, 2008); and SAP is already being seen as having similarities to complexity theories (Campbell-Hunt, 2007). In parallel, (Dyson et al. 2007) are exploring strategy support, but complexity is seen as a perturbation, or disturbance, to a

system; the complexity issues of the organisation and of the environment in which it operates are seen as negative aspects that must be overcome. The SDP model (Appendix 1) does relate to the real world, to some extent, in that it takes account of operational issues (managing the business, implementing change, uncontrollable inputs, uncertainties and resistance to change, and the trial of new ideas) but it does not embrace complexity theories, nor does it consider organisations as complex adaptive systems. The SDP model deals with the complexity issues, as a perturbation, by suggesting the use of strategy support tools, which make “explicit representations, or models of the experienced world-to-be-managed that can be used to develop and rehearse strategy” (O’Brien and Dyson, 2007). The work of Senge (1990) considers organisations as holistic dynamic systems, and he makes the distinction between “detail complexity” and “dynamic complexity”, where he says the latter is becoming more appropriate for contemporary organisations. However, he does not explore complexity theories in any great depth in an effort to understand them. Sterman (1989, 2000) also offers some explanations with his work on modelling dynamic complex environments, such as markets and economies; and Morecroft and Robinson (2005) explain that System Dynamics is of use for strategic and holistic organisational problems where the emphasis is on dynamic complexity.

From the above it seems clear that complexity theories are on the cusp of acceptability for strategy development from a variety of directions; strategists, SAP supporters, strategy supporters and systems thinkers. The following summary of the literature review results in the theoretical framework upon which this research is based.

## 2.6 Summary and Theoretical Framework

The theoretical framework for this research is represented by Figure 5 (on the next page), which summarises the above review of literature. On the left-hand side of the diagram Strategy Development Theories are outlined, from two perspectives; Strategy Development Processes and Strategy Support. The Strategy Development Process part



includes the Descriptive Models, Prescriptive Models and Strategy-as-Practice (SAP) theories. The Strategy Support part includes Strategy Tools, and Operational Research (OR) tools. On the right-hand side of the diagram Complexity Theories are outlined, which include Complex Adaptive Systems (CAS) theories. The overlap area represents the prime focus of the theory upon which this research is based.

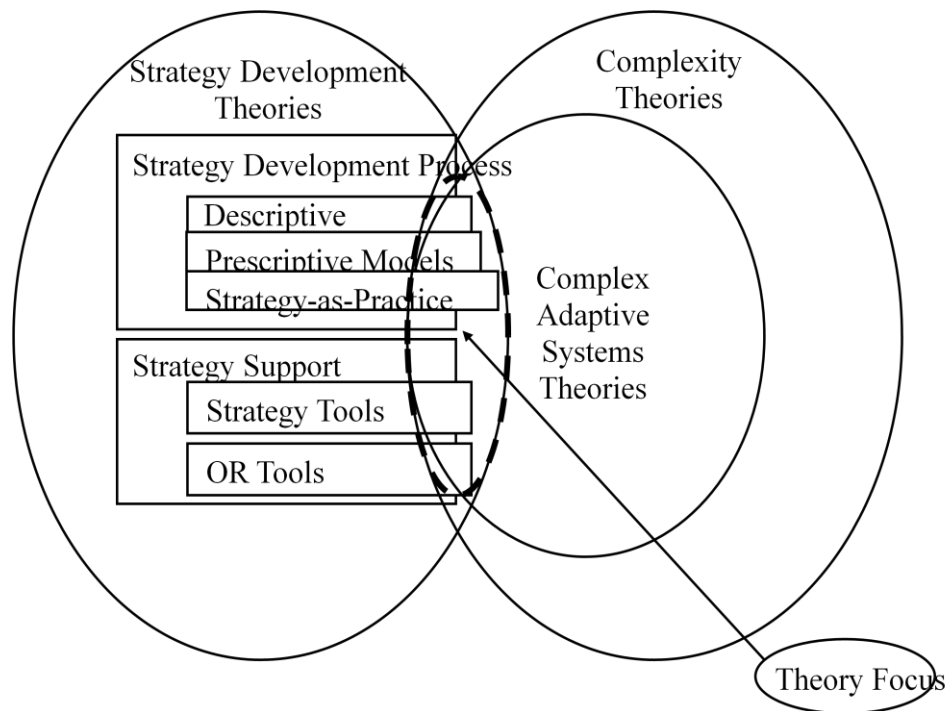


Figure 5 – Theoretical Framework

[The size of the shapes and their relative positions do not indicate any value or importance, merely the perspective taken by the researcher.]

As can be seen from the above literature review, strategy development is a difficult process characterised by a great breadth of scope and variety of aspects about a topic, strategy, which is difficult to define, despite its importance to practicing managers and organisations. It is a situation that is probably even more difficult in reality, when it is realised that the literature review is sourced mainly from academic sources, and as such maybe one step removed from practitioners. Despite this, useful information can be distilled from the review.

The strategy development theories explain the concepts of planned and emergent processes and a combination of the two, and the trends of decline in the planned processes towards the increase of emergent and social interactive types of processes. The implementation of strategy is part of an on-going development of the organisation, rather than a separate stage, and is recognised by many authors as forming part of an emergent process (Mintzberg, 1987; Whittington, 1993; Eden and Ackermann, 1998; Noble, 1999; Fletcher and Harris, 2002; O'Brien and Dyson, 2007; Bryson et al. 2009). Various concepts of what has happened in strategy development via models explaining stages of continuous, iterative and cyclical processes have been examined. Some models are relatively static, simple and linear that are termed descriptive and others are more prescriptive showing activities and interconnections. All seem to either ignore complexity issues, or try to deal or cope with complexity as a negative disturbance to the process. This is despite the OR and systems communities exploring the phenomenon of complexity, and their being ideally suited to examine complexity and complex adaptive systems based on the work done over many years in a variety of systems theory areas. The social processes of people interacting and developing strategy have been mentioned by many authors, but it is only recently that a stream of literature under the umbrella of strategy-as-practice (SAP) has emerged that focuses on social interaction as a strategy development process. However, no clear definition of SAP or any prescriptive models have yet been developed from this stream of nascent literature. The two main areas of interest from this review with regard to strategy development, for this research are the SDP model, as a comprehensive and up-to-date prescriptive model of the strategy development process, and the SAP stream of literature that focuses on social interactions. Because organisations are becoming more complex, operating in increasingly complex environments, and the development of strategy is a complex process, it also made sense to explore complexity theories literature. The review of this literature has shown that

there is interest from the social and business sciences in understanding complexity, but research in this area is sparse. Some complexity authors have focused on complex adaptive systems, as part of complexity theory, and see this approach to understanding organisations as being fruitful, despite some doubts as to whether organisations should be considered literally as CAS. Based on the work of a few of these authors, who have ventured deeper into the area, CAS have been characterised, and via these together, a relatively clear picture is emerging of organisations as CAS. As yet there is very sparse literature that makes a link between strategy development processes (SDP) and complex adaptive systems (CAS). The overlap of these two areas is the focus for this research in an effort to reduce the paucity of knowledge.

In the following section the ideas for developing this research, based on the literature review and theoretical framework, are explained in the form of a conceptual framework.

## **Chapter 3**

### **Conceptual Framework**

#### **3.0 Origins of the Conceptual Framework**

The following conceptual framework explains the development of the novel ideas for combining strategy development process theories and complex adaptive system theories. The origins of this conceptual framework are drawn from the study of the literature, as explained in the previous chapter (2.0 Literature Review), which has undergone a further analysis and synthesis process, in the light of reflections from practical business experience.

Referring to the theoretical framework (Figure 5) and the SDP literature, in particular, it became clear that the descriptive models studied provided little structure to the process and were at too high a level to be comprehensive. Study of the prescriptive models showed that the SDP model (Dyson et al. 2007; Figure 2) was the most comprehensive and up-to-date, which included the systemic aspects of the process showing the linkages and interactions connections of each element. This was judged by the researcher as the best model by which to consider the systemic aspects of the SDP. However, although the developers of the SDP model are mindful of the ‘purposeful behaviour’ and ‘deliberate actions’ of people involved in the SDP, and they are aware of the creativity, adaptability and failings of people involved in SDP, via their studies of a number of practical cases, people aspects of the SDP are not explicitly included in the SDP model (ibid). In contrast to this criticism of the SDP model, the recent SAP stream of literature complements the SDP by considering the people aspects of the process with the focus on the people interactivities of ‘strategizing’. However, the nascent SAP literature has not yet developed to provide any clear structures or models on which to base the analysis of

the people aspect of the SDP, from and SAP perspective, nor does SAP include any thorough consideration of the systemic aspect of the process.

Very little in the SDP literature (descriptive, prescriptive or SAP), has been found that considers 'complexity', which is either ignored or treated as a problem needing a solution. The only exception found being Campbell-Hunt's (2007) suggestion that SAP should embrace CAS theory because its (i.e. SAP) domain and components can be 'substantially and literately represented by CAS theory'.

The complexity literature, referring to social organisations, which is also nascent, has not yet developed any structure or model to facilitate its understanding. The closest to such a development is broad agreement on the characteristics of complex adaptive systems, which include social organisations (Appendix 3). The commonality of these characteristics (Buckley, 1968; Cilliers, 1998; Eoyang, 2001; Stacey, 2001; Mitleton-Kelly, 2003; Snowden, 2007) formed the basis of the analysis, synthesis and development of the CAS lens for this research, explained in Chapter 2 (2.4.2.1 CAS Lens). The development of the CAS lens provided a basic structure to facilitate the understanding of social organisations in terms of complexity, which may prove useful in understanding organisational behaviour, as the organisations themselves and the environments in which they operate become more complex. However, the CAS lens was not developed specifically to study the SDP; it was developed to provide some structure to help provide an understanding of organisations from a CAS perspective. The first application of this CAS lens has been to view the SDP for this research.

The research process explained in this section above narrowed to an understanding the SDP via the SDP model, and to an understanding of the CASs via the CAS lens. A combination of these two approaches was then contemplated, which resulted in the conceptual framework. The development process of this framework is explained below.

### 3.1 Development of the Conceptual Framework

By studying the strategy development process via the SDP model, with its seven essential elements, from the perspective of the organisation as a CAS, with its 16 synthesised characteristics and via the four facet CAS lens, it becomes clear that some further aspects of the organisation may need to be taken into account when considering how strategy is developed in practice. The analysis of the two approaches (via SDP model 7 essential elements, and via the CAS lens 16 characteristics) was a three-step process. The first step was to consider the 7 essential elements of the SDP model (direction setting, performance measurement, sense-making, creating strategic initiatives, evaluating options, rehearsing strategy, and selecting and enacting strategy) and look for any aspect that was similar to one of the 16 characteristics of the CAS lens. The second step was to consider the 16 characteristics of the CAS lens and look for any aspect that was similar to one of the 7 essential elements of the SDP model. Finally, the comparisons and contrasts were studied, particularly with regard to developing strategy (being the focus of this research). The result was that the SDP model, originating from the feedback control system concept, takes into account some characteristics of the CAS as a system, which could be called the systemic aspects. Mitleton-Kelly (2003) points these out as, “emergence, connectivity, interdependence, and feedbacks (positive and negative), which are familiar from systems theory” in her explanation of the principles of CASs. The further aspects that may need to be considered in addition to the SDP model’s 7 essential elements are mainly to do with people and patterns, as opposed to systemic aspects. They are specific to the organisation, and may also be of practical importance to the process of strategy development.

These further aspects are explained below and form the parts of the conceptual framework (Figure 6). All but the first one of these parts is based on the analysis and synthesis of the CAS characteristics in the above literature review:

- The development of the CAS can be positive or negative, in the sense that the complexity within an organisation may provide not only negative elements to development, requiring coping measures and solutions, but could also provide positive elements that facilitate the organisation's development of strategy. This first conceptual framework part, is distilled from the practical case study work of Cilliers (1998), Stacey (2001), Mitleton-Kelly (2003), and Hock (2005).
- There is continuous, co-evolution of the CAS with people and groups within the organisation, and with external people, groups and organisations and the relationships between these, which is a dynamic, ever changing and irreversible process. (Characteristic 'G' from the 16 synthesised CAS characteristics.)
- The related development and emergence of patterns in the relationships and consequential organisational behaviour are always changing, but at different and varying rates and with varying time-lags, all of which are not accurately predictable (M).
- The people, groups and the CAS have histories and these influence each other's development and limit or offer opportunities in change options and/or the choice of change options (J).
- People can see new and different (space) possibilities, which may be positive or negative, and push for change to adapt existing conditions, because people can reflect, learn, imagine and be creative (L).
- There is whole system ignorance, in that no one person or group has complete knowledge of the CAS, which leads to inherent uncertainties and risks (K).
- Parts (or, all) of the CAS can self-organise, under appropriate circumstances (P).
- All characteristics of CAS are interrelated in a non-linear manner, so that nothing can be changed purposefully, or otherwise, without some impact on other parts of the CAS, or the CAS as a whole. The impacts could range from small and

insignificant to profound and very significant, depending on the non-linear relationships (D).

The above further aspects that may need to be considered, and are additional to the seven essential elements of the SDP model, are summarised in the conceptual framework below.

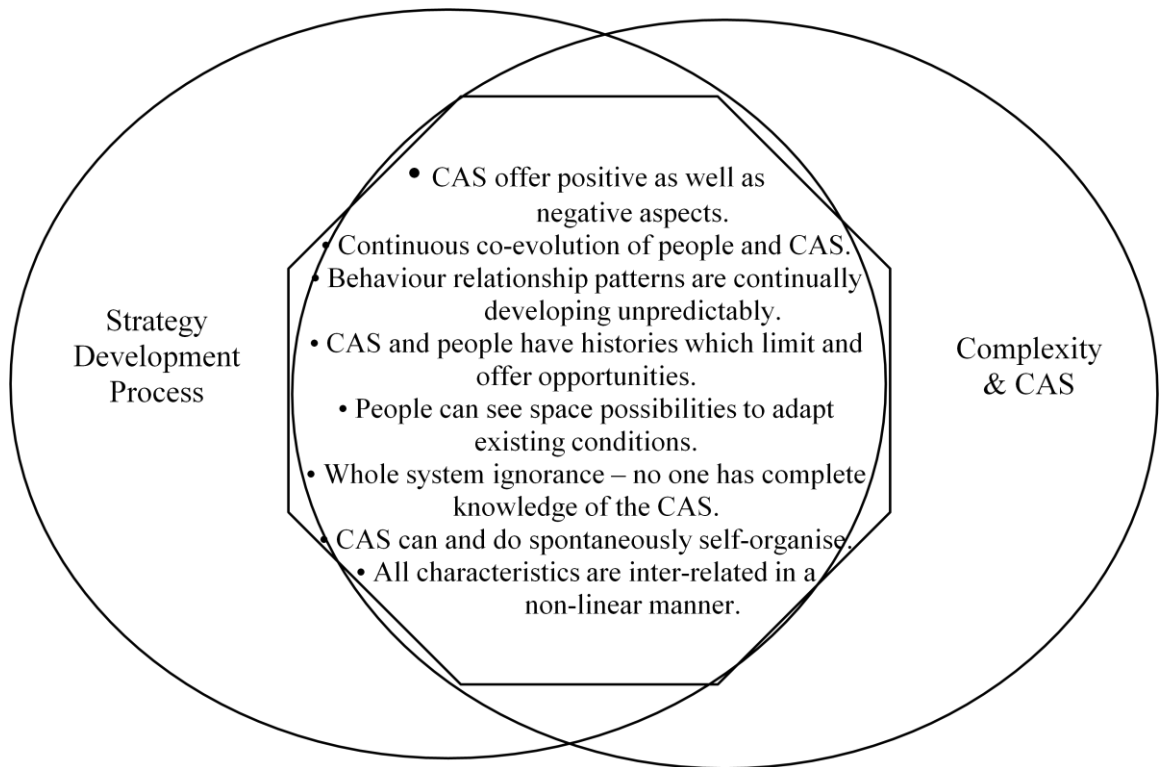


Figure 6 - Conceptual Framework

### 3.2 Basis for Confidence in the Conceptual Framework

The thoroughness of the analysis and synthesis processes explained above should provide some basis for confidence in the conceptual framework developed. The process was based on a similar meticulous and rigorous method as explained for the literature review process (Chapter 2). Partial testing of the conceptual framework has also been undertaken by the joint writing of an academic journal article, which has been accepted for publication in the Journal of the Operational Research Society (Hammer et al., forthcoming), which explains the conceptual framework. The publication process has



involved the receipt and response to three peer reviewers in two phases. The comments received were generally positive, supportive of the approach to SDP, and also go some way to provide a further basis for confidence in the conceptual framework.

### 3.3 Summary of the Conceptual Framework

The conceptual framework proposes that the ideas that approach strategy development from the perspective of systems and processes, as represented by the SDP model, are inadequate in that they do not include people, their connectedness and relationships as explicit core elements. Similarly, the SAP approach to strategy development, which focuses on people and their activities, does not include systems and processes as core elements. Both approach perspectives to strategy development do not contemplate complexity issues, except as a potential disturbance to the strategy development process. From the strategy development process literature it appears that the complexity issues are either ignored or seen as a problem that needs a solution. Knowledge about the complexity issues within and around the organisation should be increased rather than ignored, to remedy problems and make use of any benefits discovered. One way to develop an understanding of complexity issues within the organisation, which may be useful to strategy development, is to consider organisations as CASs. A thorough investigation of CAS characteristics, resulting in the CAS lens developed from the study of the literature, may provide novel insights to the strategy development process.

To some extent, the SDP model, could possibly be seen as accounting for some parts of these further aspects by the ‘uncontrolled inputs’ part of the ‘sense-making’ element of the SDP model. The ‘uncontrolled inputs’ part is included to take into account the uncertainties and risks that are detected as they spontaneously arise in the SDP (Dyson et al. 2007). However, this essential element could be seen as a ‘catch all’ for any unspecified element or characteristic (internal or external) not accounted for by the other

elements of the SDP model, that could cause a disturbance to the system and would need to be dealt with or remedied. It is proposed here, from the above conceptual model, that these uncontrolled inputs are not given sufficient attention in the SDP model. The further aspects incorporated in the conceptual framework may deserve more attention than merely being considered as ‘uncontrolled inputs’ as part of the ‘sense-making’ essential element of the SDP model.

From the above and comparing the theory areas of SDP, the SDP model, CAS theories, and the CAS lens, it is proposed that considering the organisation as a CAS offers specific and rich opportunities to provide a better understanding of the strategy development process and thereby contribute to the existing theories. CAS theory could also potentially provide a better informed practical strategy development process for organisations. This conceptual framework forms the basis for the research project.

Based on the literature review, theoretical framework and conceptual framework above, it became clear that the research design would require a focus via a CAS ‘lens’ and its use in the research design is explained in the methodology chapter (4) below.

## Chapter 4

### Methodology

#### 4.0 Methodology

“Methodology is the theory of how research should be undertaken, including the theoretical and philosophical assumptions upon which the research is based and the implications of these for the method or methods adopted” (Saunders, 2009).

#### 4.1 Introduction

This chapter explains the researcher’s philosophy, the ontological and epistemological implications, research methods available, the methods used in this research project and the justification for their selection, and the research design with critique and considerations of reliability and validity. It also includes an explanation the issues concerning bias reduction and ethical issues encountered, and limitations of the research design.

First a reminder of what this research was trying to discover. The main question posed in this research was “Does complex adaptive systems theory enlighten the strategy development process ?” This question was based on more than 40 years of business experience, where strategy development was observed in many organisations and found to be puzzlingly obscure, despite its importance to the various organisations with which the researcher was involved. It was therefore decided to look into the possibility of a novel approach by making use of complexity theories and complex adaptive systems theory in particular. The research question above was the aim of the research. The following subsidiary objectives were adopted:

- What theories explain the strategy development process ?

- What explains organisations' strategy development process in terms of complex adaptive systems theory ?
- How does a specific case study example of an organisation develop strategy ?
- How do other organisations develop their strategy ?
- Is there a complex adaptive systems theory concept, model, or tool that could inform the strategy development process ?

A significant aspect of achieving the aim and objectives of this research was to investigate the practical utility of the novel conceptual framework, the development of which was explained in chapter 3. The way in which the conceptual framework was used to analyse and synthesis the data is explained in section 4.7 below.

The next section explains the philosophical perspective from which this research was conducted, and the ontological and epistemological considerations of the research.

#### 4.2 Philosophical Perspective

The philosophical position of the researcher makes a difference to the type of research done and the certainty and credibility of the results. The natural sciences, sometimes called the 'hard' sciences, of physics and chemistry, for example, usually make use of reductionist 'Newtonian' methods, where the researcher is an objective observer to the research subject and the researcher can be positive about the results. This perspective of (hard) science in its search for knowledge and the truth is termed 'positivist' (Ravetz, 1988)(Ravetz, 1988). Such scientific research, usually involving theory testing, aims to be 'repeatable', so that it can be verified by others, and step by step knowledge can be increased with traceable certainty. Social science research, which involves people, perceptions, less objectivity and more involvement in the research process by the researcher, cannot be as positive, certain or repeatable, and this perspective is termed 'post-positivist' (ibid). As Weick (1995) says, accuracy can be an illusion in social

science research, it cannot be positivist nor repeatable, and the best that can be claimed is plausibility, coherence and reasonability in making sense of the research information. Checkland and Howell (1998) agree that in the social sciences 'plausibility' is usually the aim, but they go further and suggest that the process of social science research should provide an audit trail, and be 'recoverable' by anyone interested in critically scrutinising the research. This is better than 'plausible', as is usually accepted in the social sciences, but not as good as 'repeatable', as is expected in the 'hard' sciences (ibid).

#### 4.2.1 The Paradigm, Ontology and Epistemology

“The paradigm is a way of examining social phenomena from which particular understandings of can be gained and explanations attempted” (Saunders, 2009). A paradigm has been explained and defined by Guba and Lincoln (1994) as the basic belief system or world-view that guides the research. It is the basis for the research and the philosophy of the researcher, which should be considered before the research is designed and methods selected (ibid).

Guba and Lincoln (1994) have also synthesised four categories of paradigm; positivism, (as mentioned above), realism, critical theory, and constructivism; each with their sets of ontology, epistemology, and methodology. “Ontology is the ‘reality’ that researchers investigate, epistemology is the relationship between reality and the researcher, and methodology is the technique used by the researcher to investigate the reality” (Healey and Perry, 2000). Table 3 (on the next page) summarises the above four Guba and Lincoln paradigm categories and their respective elements (adapted from ibid):



Table 3 – Paradigm Categories (Guba and Lincoln, 1994)

Saunders et al. (2009) explain in a similar manner four paradigms for management research; positivism, realism, interpretivism, and pragmatism, which are summarised here:



Table 4 – Paradigm Categories (Saunders et al. 2009)

Considering the above explanations of paradigm type (Guba and Lincoln, and Saunders et al.) there are differences in the descriptions of each evidencing an on-going debate in the characteristics of different research philosophies. There seem to be fuzzy paradigm boundaries between the various views of philosophical researchers. However, the

researcher for this research project feels comfortable with a combination of the Constructivism and Realism paradigms as described by Guba and Lincoln (1994), and a combination of the Realism and Interpretivism paradigms as described by Saunders et al. (2009), mentioned briefly above.

Referring to the Burrell and Morgan's (1979) typology of social paradigms, which is based on two dimensions; subjective/objective, and radical change/regulation, as illustrated by the diagram below, the researcher for this research project is using the Interpretivist paradigm as described by these authors:



Figure 7 - Paradigm Typology (Burrell and Morgan (1979))

Burrell and Morgan (1979) say that “the social world is an emergent social process, which is created by the individuals concerned”. They explain the ‘interpretive’ paradigm is approached subjectively, where the researcher is involved in understanding the world ‘as it is’ and seeks this via individual consciousness within the frame of reference of the participant (ibid). Goles and Hirschheim (2000) in their discussion of the Burrell and Morgan typology agree that “the interpretivist paradigm seeks explanation within the

realm of individual consciousness and subjectivity, and within the frame of reference of the perspective: ‘social roles and institutions exist as an expression of the meanings which men attach to their world’”.

Because the understanding of organisations necessitates an understanding of people and their interactions and relationships, the study of people in an organisational context requires researchers (also people) to perceive situations and make sense of the phenomena. The paradigm from within which the researcher for this research project operates is the Interpretivist paradigm of Burrell and Morgan (1979) and on the border of the Constructivist and Realism paradigms of Guba and Lincoln (1994). These two views (Burrell & Morgan and Guba & Lincoln) appear broadly the same, from their explanations.

To clarify the researcher’s position, for this research, the ontology is that reality exists in the minds of those concerned, but it is subjective and generally agreed by most involved, and that it could change if other evidence becomes available that is credible and becomes generally acceptable. The perceptions of the research actors are affected by their values, and the perceptions of the researcher are also affected by his values and by those of others, because we all influence each other, which necessitates ‘value awareness’ and an acceptance that the reality is imperfect and probabilistic. Because the values of the researcher can influence all stages of the research process and a person’s “values are a guiding reason for all human action” (Heron, 1996 cited in Saunders, 2009), Appendix 5 ‘My Background and My Values’ is included here as a reflective statement to evidence the ‘value awareness’ of the researcher.

The epistemology for this research is that the evidence found is probably true, relies on multiple perceptions of realities, and it is the best obtainable at the moment in time. The methodology uses multiple methods, where triangulation of the evidence from various



sources is sought, in an effort to obtain ‘construct validity’ in the research (Healey and Perry, 2000). The next sections consider the research approach, research strategies, methods choice, timings and analysis methods, forming the research design for this project.

#### 4.3 Research Design – Inductive Approach

Based on the above discussion of research philosophies, where the researcher’s position has been made as clear as possible, the next decision to make in the research design process is the basic approach to theory. There are two; the deductive approach, where the theory is studied and the research is designed to test the theory, and the inductive approach, where the research is designed to analyse the data collected to develop theory (Saunders et al., 2009). The deductive approach has its origins in the historic development of research in the natural (hard) sciences. This approach requires deducing a hypothesis from the theory in the academic literature, which is a testable position, involving two or more variables, searching for a causal relationship between the variables, and controls to ensure the process is rigorous. The deductive approach usually involves a highly structured methodology that is designed and fixed before the data gathering and analysis is begun, recording the process very accurately to allow the research design to be replicated, thereby ensuring reliability. Quantitative measurement of the clearly defined facts obtained from the research is a characteristic of the deductive approach. The use of statistics, to validate sample sizes, and check for error limits, for example, is another characteristic of the deductive approach in order to allow generalisation of the findings to other situations. In the deductive approach the data follows the theory (Jankowicz, 2000; Roberts, 2002; Collier et al. 2004; Saunders et al. 2009).

With the inductive approach, the theory follows the data, and this is the approach that is made use of for this research project. As explained by Saunders et al. (2009) with the development of the social sciences in the 20<sup>th</sup>. century, social science researchers were wary of the deductive approach. “They were critical of an approach that enabled a cause-effect link to be made between particular variables without an understanding of the way in which humans interpreted their social world” (ibid). Building theory from the data and analysis, with the inductive approach, does offer opportunities to understand the social world in depth, and this is the main strength of this approach. Easterby-Smith et al. (2008) suggest three main reasons for the inductive approach; it enables the researcher to make a more informed decision about the research design, it helps in thinking about the research strategy choices, and it enables the researcher to cater for constraints. The researcher used this approach for these reasons, and additionally because of the flexibility it offers for the duration of the research project. There were constraints for this research, which included the original lack of prior knowledge of the complexity theory, which precluded designing hypotheses for a deductive approach, workload difficulties of gaining access to data sources, and the part-time nature of the project. The inductive approach also allows accommodation of unexpected changes needed to the research process as the project progresses, which is of particular importance with exploratory research, as this research project is. This research project is also confirmatory, in that the study of the academic literature produced a novel conceptual framework (see Chapter 3.0 above). This conceptual framework has been tested by submission and re-submission as an explanatory article to a reputable academic journal (Journal of the Operational Research Society), as it nears publication, by receiving positive peer reviewer feedback (Harzing, 2008). The empirical research goes some way to further confirm the validity of the conceptual framework.

#### 4.4 Research Strategies

The focus of the empirical research for this project was on a single case study organisation (CSO), at which the researcher was employed, and where the research was conducted on a part-time basis over a long period of time. The CSO is a small UK university involved in the Further (FE) and Higher Educational (HE) sectors. Robson (2002) defines a case study as “a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within a real life context using multiple sources of evidence” (cited in Saunders, 2009). The decision to adopt a case study strategy was taken for pragmatic reasons. It was important to understand the development of strategy in a real life situation, in at least one specific organisation. However, it was not practically possible to study more than one organisation, in the depth required, for a long period of time, for this research topic, other than in the researcher’s own employer organisation. Such a decision offers significant opportunities and threats, which are explained later in this chapter. Yin (2003) explains the importance of understanding phenomena in organisations, in the context of the organisation itself, where often the boundaries of the research subject are unclear, as opposed to a survey or experiment via a deductive approach where the boundaries are known and fixed. He also explained the validity of single case studies and holistic case studies as providing valuable in-depth information upon which to build theory and knowledge (ibid).

Ethnography is another strategy adopted for this research. It involves “focusing on describing and interpreting the social world through first-hand field study” (Saunders et al. 2009). This means that the researcher needs to be involved close to the organisation as a real life situation to sense what is happening in reality (Hammersley and Atkinson, 1983). In this research the real life situation is the CSO. Mingers (2007) however, in his article explaining contemporary operational research (OR), considers the philosophical and methodological issues of combining the advantages and disadvantages of positivism

and objectivity with the subjective worlds of meaning, beliefs and ideas, and is sceptical of the value of ethnographical research strategies. Jirotko et al. (1992), in their study of the organisation of social organisations, used an ethnographical strategy to understand the structures, networks and organic interactions of organisations, and found such a strategy very useful.

Action research is a strategy often used with an inductive approach, but where the researcher is closely involved in change processes within an organisation to the extent of being part of the change process. Saunders et al. (2009) define it as “a research strategy concerned with the management of a change and involving close collaboration between practitioners and researchers”. This strategy was not possible with this research as such intimate access to the workings of the CSO and their SDP were not permitted.

Grounded theory is often seen as the best example of research strategy for an inductive approach, in that “theory is developed from data generated by a series of observations and interviews” (Saunders et al. 2009) and this strategy was also adopted for this research. Glaser and Strauss (1967) are credited with discovering this theory building strategy, in which in the classic form of the strategy, data collection starts without any set theoretical framework. The data itself provides an iterative step towards theory, where upon more data is collected and the theory further defined. In this research, the initial data upon which to build theory was found in the literature on strategy development process and complexity theories. Refinement of these produced the CAS lens, as mentioned in Literature Review (chapter 2) and the Conceptual Framework (chapter 3) above. The empirical results via the case study based on the CAS lens and conceptual framework produced more data to validate the theory thus far developed, and further refinements to the theory developed were made. Grounding theory in the literature as a data source as mentioned above is the basis of Klein and Zedeck’s (2004) explanation of ‘good theory’ and resulted in their seven elements of good theory.

In summary the strategies used in this research were case study, ethnography and grounded theory. The researcher's employer was used as the single case study organisation, from which the empirical data was gathered. The methods used in the ethnographic study of the CSO to collect data in which the theory developed was grounded, are explained in the next section of this chapter.

#### 4.5 Research Data Gathering Methods

The methods used in research can be quantitative or qualitative. Quantitative methods use techniques, such as surveys and questionnaires, which produce numerical data that can be analysed statistically and via graphs, for example. Qualitative methods use techniques that produce non-numerical data, such as interviews and observations. Both quantitative and qualitative methods can be combined in research projects, which are termed mixed methods. This research makes use of only qualitative methods, via a variety of data collection and analysis techniques, which is termed multi-methods (Hakim, 1987; Bryman, 1988; Saunders et al. 2009). The research methods framework (Figure 8) summarises the qualitative data gathering methods used in this research.

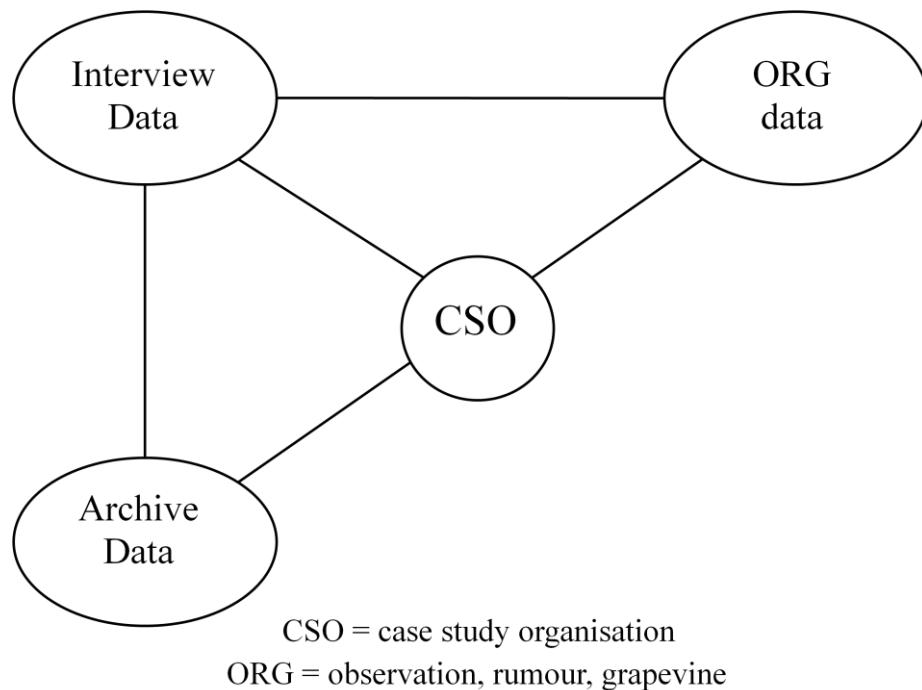


Figure 8 Research Methods Framework

The choice of these methods was for practical reasons and their combination evolved as the research project progressed. Some academic literature studied (Archive Data) provided useful case studies of various organisations to inform the data collection and validate the theory developed from the empirical data. The CSO documentation (Archive Data) also provided useful background and comparative information to confirm and contrast with the interview data. Interview data provided the greater part of the data collected and was more closely framed around the research question, compared to the other data sources, which could not be structured prior to gathering. The ORG data (observation, rumour and grapevine) is a relatively novel source, which provided useful inputs that complemented the interview data. The researcher started the project wanting to remain professionally detached from the data gathering process, despite the subjective nature of the research design. However, professional intuition, based on more than 40 years of business experience, was part of the ‘value awareness’ mentioned above in section 4.2.1. and it was found that periodically throughout the research project intuition had advantages in validating data gathered from other sources and some disadvantages

(mentioned in the 'Limitations' section below). Overall, the mix of data sources shown diagrammatically in Figure 8 provided a very useful data set that formed the basis for this research, which was minimally complemented by the researcher's intuition. Further explanation of each data source follows below.

#### 4.5.1 Interviews

Interviews can have a variety of forms, because essentially they are a conversation, usually between two people, involving an exchange of information and the development of a relationship. Kvale (1996) in his extensive explanation of qualitative research interviewing says that the research interview involves an asymmetrical relationship as one is gaining information from the other's world. The authority level and information exchange may not be equal. Saunders et al. (2009) explain that there are three basic types of interview; structured, semi-structured and unstructured. The former aims to ask the same questions, to each interviewee in a relatively formal manner, the latter usually has one or a few themes the interviewer needs to explore and where the course of the interview is free-flowing and likely to be very different per interviewee. The semi-structured interview, the type used in this research, follows a middle ground and has a defined set of topics the interviewer wants to explore, so that the main items of interest are covered, but there is sufficient flexibility to exclude items not relevant, or include unplanned items found to be relevant to the research, per interviewee (ibid). Appendix 6 details the interview topics used to semi-structure the 41 interviews. The topics relate to the seven essential elements of the SDP model (Dyson et al. 2007) and the 16 synthesised CAS characteristics of the CAS lens. As can be seen from Table 4 below, 44 interviews were held with 36 people within the CSO. [The Top Management Team (TMT) members of the CSO are referred to as TT1, TT2, etc.; the senior managers (SM) are referred to as SM1, SM2, etc.; and others in a similar anonymous manner.] Three of the interviews conducted in the 'old regime' period were from another study by a different

researcher, and use was made of the transcriptions as secondary data in this research.

This is explained more fully in Table 5 below.

Interviews (44)							People (36)			
18 months	+	24 months	+	24 months	=	5.5 years		Key		
<b>'Old Regime'</b>		<b>'Interim'</b>		<b>'New Regime'</b>		<b>Total</b>	<b>%</b>			<b>Nos.</b>
5 x TT		5 x TT		6 x TT		16 x TT	36.4	TT	Top Team	9
		13 x SM		3 x SM		16 x SM	36.4	SM	Senior Manager	15
		4 x L		2 x L		6 x L	13.5	L	Lecturer	6
		1 x G		2 x G		3 x G	6.8	G	Governor	3
		1 x S				1 x S	2.3	S	Support	1
		1 x R				1 x R	2.3	R	Retired	1
		1 x A				1 x A	2.3	A	Administration	1
	%		%		%					
<b>*5</b>	11	<b>26</b>	59	<b>13</b>	30	<b>*44</b>	100			36

Table 5 - Interview Sample and Analysis

During the project multiple interviews were held with TT1 (x2), TT2 (x4), TT3 (x3), TT4 (x2) – the ‘core’ top team, and SM15 (x 2). All the TMT members were interviewed. A further six respondents retired during the period (+ 1 retiree interviewed = 7 retired); and one respondent has died. Two (Student) Governors have since left, replaced by another (Student) Governor. A Staff Governor remains in place. 30% of respondents have a ‘Hospitality’ background, 36% teaching, and 34% local government, administration, accountancy, IT or HR.

\*Three ‘old regime’ interviews transcriptions were used from a different research project, please see the text for fuller details. For this research, the researcher conducted 41 interviews in total over a period spanning four years (2006-2010) + 3 transcriptions from different research = 44.



#### 4.5.1.1 Interviews - Sampling

The purpose of the empirical research is to gain an understanding of the process the CSO uses to develop strategy. It was therefore necessary to find the people involved in this process, which was done via ‘snowballing’ principles, asking interviewees and work colleagues who might be likely interview targets. This is a pragmatic and purposive process of sampling interviewees (Saunders et al. 2009). This meant that the nature of the research required interviewing the nine members of the top management team (TMT) and an appropriate number of senior managers and other significant people within the organisation. The TMT members changed over the period of the study, and were all important data providers. All TMT members were interviewed and the TMT members most involved in strategy development were interviewed 2-4 times, as detailed in Table 4 above. The non-TMT interviewees (senior managers, lecturers, governors, support, retired staff member, and administrator), totalling 27 people, were selected as mentioned above. Some provided useful data, others less useful data, the cut-off point on how many more people to interview was a pragmatic decision based on a judgement of the extra information likely to be obtained and the time available to complete the research project.

#### 4.5.1.2 Interviews – Procedure

A set procedure was developed to conduct the interviews. The target interviewee was identified, and an appointment made that was mutually convenient. No interviewee rejected an interview request. An interview briefing sheet was sent or given to the target interviewee a few days before the interview appointment, which outlined the purpose of the interview. It included ethical guidelines, interview format, background information on the research, and brief biography of the interviewer, as can be seen in Appendix 7. The venue used was either the interviewee’s own office, or a neutral location in or near the premises of the CSO. All interviewees were asked before the interview if they had

received the briefing sheet and whether they had any questions, concerns, or objection to the interview being audio recorded. Three members of the TMT (TT1, TT2 and TT5R) did not want the interview recorded (involving seven interviews); TT5R said that he felt less restrained if recording did not take place. Note-taking was acceptable in these three cases. For the remaining interviews, two audio recorders were used, one a mini-cassette recorder for sending to the transcription typist, and one digital recorder for back-up purposes. Interviews on average lasted for 74 minutes (shortest 22 minutes – longest 103 minutes), involving 37 hours of interview time and approximately 150 transcription hours, in total (41 interviews).

Immediately after the interview, situation notes were made to capture the contextual information. A ‘thank you’ email was sent to all interviewees the day after the interview, to maintain relationships and help keep the door open for any potential subsequent interviews. Only one TMT interviewee (TT5), from a non-recorded interview, requested to see a copy of the interview notes, which was returned with ‘sanitised’ corrections. This in itself provided useful information on the manner in which CSO documents are crafted iteratively into existence by TMT members.

Transcription of the interviews was sub-contracted to an external source. A sample of sub-contracted recorded interview transcriptions were transcribed a second time by the researcher to check the quality and accuracy of the sub-contractor. The quality was found to be acceptable. A sub-contracted transcriber was used that had no connection with the CSO for ethical reasons and to ensure anonymity. More than 15% of the interviews were transcribed by the researcher for training, checking, timing and importance reasons. Some interviews were not transcribed because they were judged to have low value data. In summary, from the 41 interviews, data was available for analysis from the audio recordings, contextual notes and the interview transcriptions. In addition there were three interview transcriptions obtained from a different research project, by a

different researcher, which provided useful and pertinent data (see section 4.5.2 below).

The explanation of the analysis process is explained in section 4.6 below.

#### 4.5.2 Secondary Data – Transcriptions (x3) and Archive Data

During the course of the data collection, it became apparent that the CSO was experiencing a regime change, explained fully in the Findings chapter (5.0) below. It was felt wise to balance data gathered from the ‘old regime’, ‘interim’ period, and ‘new regime’, and consequently three interview transcriptions from a previous earlier study (2004) by a different researcher were obtained and included as secondary data. This earlier study focused on leadership, but did include elements of strategy development process from three TMT members (TT1, TT3, TT4), which was relevant and germane to this research and was thus included in the data set.

The archive data included CSO documentation and a number of relevant case studies found in the literature studied. A large number of CSO documents, from a variety of sources covering many different subjects was collected and studied in the course of the research period (2004-2010). Appendix 8 lists a large selection of these documents, some of which were drawn upon and provided useful data and complementary information for this research. However, much did not contribute to understanding the process of the CSO developing strategy and had relatively low value despite their copious detail and presentation.

Academic literature also provided the following useful case study material, which complemented the empirical research data. This included:

- Morecroft (1984) - an examination of an empirical case study (Datacom) that allowed the development of a strategy process model for a way of simulating the

‘acting out’ of a series of marketing strategy options and compared the results with managers’ intuition.

- Gable (1994) – a study combining case study and survey research using qualitative and quantitative methods to look at success factors in IS consultants engagements.
- Scott-Morgan (1994) – the explanation of the development of an SDP analytical model based on practical involvement in client projects (Arthur D. Little) comprising: motivators (objectives of people), enablers (key people), and triggers (parts of other processes). It included studying processes, resources and organisational structures.
- Jarzabkowski and Wilson (2002) – A comparison of ‘strategy practice’ and ‘strategy process’ using a long-term, single case study (University of Warwick). It examines ‘patterns for action’, involving patterns development, emergence, and recognition.
- Dyson (2004) – an interesting case study of the University of Warwick and its use of the simple SWOT analysis in triggering potential strategies as part of the SDP.
- Hock (2005) – a case study on Visa International, a not-for-profit organisation owned by a consortium of banks to facilitate payment transactions. The author/founder/CEO of Visa developed the organisation based on complexity theory principles.
- Mitleton-Kelly (2005) - Explains an application of the London School of Economics’ Complexity Group’s ‘integrated methodology’ to an anonymous case study in ‘designing’ a new organisation.
- Sminia (2005) – Based on a long-term case study of an anonymous large Dutch construction company, which explained the SDP at TMT level as part of ‘layered discussion’ (interaction) as an element of the emergent and implicit process.

- Marouf (2007) - From an empirical case study of a multi-cultural, international finance firm, it was found that the strength of the business relationships contributed significantly to the sharing of knowledge.

Some of these case studies have been referred to in the following Discussion chapter 6 (Scott-Morgan, 1994; Jarzabkowski and Wilson, 2002; Dyson, 2004; Hock, 2005), to illustrate points found from the analysis. The remainder (Morecroft, 1984; Gable, 1994; Mitleton-Kelly, 2005; Sminia, 2005; Marouf, 2007) were used as contextual and background material for understanding the analysis of this research.

#### 4.5.3 Observation, Rumour and Grapevine – ORG Data

Huberman and Miles (2002) explain that an ethnographic approach, as this research has (see section 4.4 Research Strategies above) “allows a fieldworker to use the cultural setting to account for the observed patterns of human activity.” They go on to say that “in organisational studies the patterns of interest are typically the various forms in which people manage to do things together in observable and repeated ways (ibid).” As the researcher was a full-time employee of the CSO, whilst simultaneously conducting the research, immersion in the culture, routines, rituals, and day-to-day operations was inevitable. Early in the research project it was realised that observational data would become available to complement the interview data planned. This was also particularly useful for sensing the patterns of formal and informal human interactions needed to understand the ‘continuous varying interactions’ (CVI) of the CSO in a CAS context. The nature of the observation of the researcher was ‘observer as participant’, as explained by Saunders et al. (2009), where they classify four observer roles that could be adopted (participant as observer, complete participant, complete observer, and observer as participant) dependent on the participation level and the degree of identity disclosure. In this research, the researcher did not hide the fact that he was observing situations. If

the situation developed that would have put the observed subjects or the researcher in a vulnerable position, the researcher either withdrew or informed the subjects of the research and asked permission to take notes anonymously. In such an observational encounters trust is very important between the informal networks of colleagues exchanging information. Dirks (1999) in his empirical research used observation to collect data for studying the effects of interpersonal trust on workgroup performance, and found that trust between colleagues is very important to personal interactions.

Closely linked to the observational data inputs are organisational rumours from 'grapevines', which are informal networks of colleagues within the CSO. Informal interactions among people within organisations are a normal process of human socialising. This interaction will always include the communication of information, some of which can be a useful data source for research purposes. The data needs to be used with caution, because it is based on peoples' perceptions, which have very complex influences on memories, recollections, bias and further onward communication. (Pendleton, 1998; DiFonzo and Bordia, 2002; Davis, 2006).

Appendix 9 lists a number of ORG encounters as data input, which includes the information gathered. It is not comprehensive, and can only be indicative, because the researcher cannot be involved in every conversation. (Some rumours encountered were found to be untrue, when checked via other sources, and these have been excluded from the analysis. All of the items listed have been validated by at least one other data source.) The non-validated encounters did show a similar pattern to those listed and reflect the culture and behaviour traits of people within the organisation as explained in detail in the Findings chapter (5.0) below.

Silverman (1993) explains that "observational studies rarely provide readers with anything other than brief, persuasive, data extracts" and this was the case with this

research project. He also explains that the validity of observational data is enhanced by extensive field notes, but that this is often very difficult in practice to do (ibid). This was also the case with this research. The context of the ORG data gathered was always between colleagues on the CSO premises, in lecture rooms, corridors or staff rooms. Generally, notes had to be made some time later than the encounter. Bryman (1988) agrees with this difficulty “field notes or extended transcripts are rarely available”.

#### 4.5.4 Intuition – Based on 40 Years of Business Experience

Appendix 5, “My Background and My Values” outlines the researcher’s background and experience upon which his intuition is based. As mentioned in the introduction to this section (4.5) intuition did play a positive role in this research, albeit a very minor role, but for completeness it was considered wise to record it as a minimal data input.

The many years of business experience of the researcher provides a valuable store of behaviour patterns in the memory of the researcher, which allows recognition of familiar situations developing in the subjects observed. Miller and Ireland (2005) call this “automated expertise”, where the developing situations are recognised intuitively. Such recognition is difficult to explain and often almost impossible to justify with the rigour normally expected in academic research, which is why this data source is not a major part of the research. Researcher intuition has advantages over less experienced novice researchers in recognising patterns, which were very useful for this research project; and disadvantages in evidencing the audit trails for academic rigour. To validate the researcher’s intuitive basis, the recollections of work experiences as three self-reflective narratives (SRNs) were sent to three different former colleagues for comments on their accuracy (see Appendix 10). In all three cases a response was received from the former colleagues, which confirmed that the recollections were substantially accurate, with only

minor inaccuracies mentioned. These confirmations were taken as evidence of validating the intuitive inputs, which were used only minimally in this research.

#### 4.6 Timings

Most social science research projects are short term projects limited by resources, one of which is the time dimension. Because of this most research projects are “cross-sectional”, and are explained by Saunders et al. (2009) as “the study of a particular phenomenon (or phenomena) at a particular time i.e. a ‘snapshot’”. They may be case studies carried out over a short period of time in an effort to understand a particular situation. “Longitudinal” studies are “the study of particular phenomenon (or phenomena) over an extended period of time” (ibid). Such studies are less common because of resource constraints and circumstances. This research project is a longitudinal case study, where the data has been collected over a period of six years (2004-2010), within which the interview and ORG data was collected covering a 5½ year period. This was necessary because the aim of the research involved a deep study of a process, strategy development, which required the observation and sensing of contexts, much of which is embedded in the people and organisational behaviour under study and can take some time to understand, as explained by Pettigrew (1990). Fortunately the way in which this research was undertaken, as a part-time project performed simultaneously with full-time employment in the same organisation, facilitated a longitudinal research project of this type.

#### 4.7 Data Analysis and Synthesis via the Conceptual Framework

Section 2.1 (Literature Review Method) explained in detail the data gathering and analysis methods for the study of the academic literature. This also proved to be an effective analysis method for the study of the archive data comprising CSO documentation and case study data found in the literature as explained in section 4.5.2.



The research project generated a great deal of data, which was analysed and synthesised to make sense of it in an effort to achieve the aim. As explained by several authors there are many ways to make sense of qualitative data (Miles and Huberman, 1994; Kvale, 1996; Huberman and Miles, 2002; Denzin and Lincoln, 2003; Saunders et al. 2009). As each research project is unique, there is no 'best' process to use to make sense of the data. The relatively recent development of computer aided qualitative data analysis software (CAQDAS) seems also to have expanded the choice of analysis and synthesis methods and tools (Saunders et al. 2009). Because of the variety of data sources, the planned analysis approach of using two different theoretical routes (SDP model and CAS lens) and the relative unease the researcher has with learning to apply a new computer software system, it was decided not to use CAQDAS methods to analyse the data for this research. Use was instead made of the ideas of Kvale (1996) in categorising and condensing the data, Abbott (1995) and Buttriss and Wilkinson (2006) in sequencing analysis, Attride-Stirling (2001) thematic networks and picturing themes, and Hancock and Raeside (2010) with social network analysis.

Attride-Stirling (2001) explains that thematic networking is a way of picturing themes for deeper qualitative research. Such an analysis process can be structured to greater and lesser degrees, possibly with different levels and approaches to visualise thematic connections in qualitative data. This approach prompted the use of diagrams in this research to explain the themes perceived by the researcher. Similarly Abbott (1995) explains analysis of data to find sequences as patterns in the data, sequence analysis (SA), where complex situations developed. He says that many of these methods have been developed in the psychology, economics, and operations research fields of study. He suggests that the latter, OR SA (operational research sequence analysis), may provide usefully practical models for social processes, because of the OR genesis in highly technical scheduling problems. Buttriss and Wilkinson (2006) in their studies of

international entrepreneurship focused on developing process models and find that Narrative Sequence Methodology (NSM), sometimes called Narrative Event Methodology (NEM), provides a richer more realistic understanding of the holistic processes taking place. The actions of the actors, performing roles within the organisation are studied, the actions being the focus, where past events are of importance. The search is for causal mechanisms and connections, which explain actions, leading to the theory, which can point to future actions.

Some of these more recent ideas are more closely connected to understanding the ever-changing network interconnections and dynamic quality of the connections in social interactions, which are appropriate for this research. For analysis of these deeper continuous varying interactions there does not yet appear to be any CAQDAS computer software support generally available.

After studying the various ideas mentioned above, the researcher chose to analyse the interviews manually via the novel conceptual framework as explained in chapter 3, and two relatively simple frameworks; one based on the SDP model's seven essential elements (see Appendix 11), and one based on the four-faceted CAS lens (see Appendix 12). The development of the four facets of the CAS lens was an effort to simplify the 16 synthesised characteristics of CAS. A 16 facet lens did not work well in practical analysis, because the 16 synthesised CAS characteristics are holistically combined and difficult to differentiate in the analysis of the data. The four facet CAS lens is a practical compromise between an understanding of the nature of CASs, via its 16 synthesised characteristics, and the need to consider the CSO as a CAS, holistically.

The analysis of the data via the SDP model and CAS lens frameworks, mentioned above, provided the basis for a final analysis phase based on the conceptual framework, which

considers the CAS aspects and which complement the SDP model. As a reminder these aspects are summarised in the conceptual framework, Figure 6, shown here again:

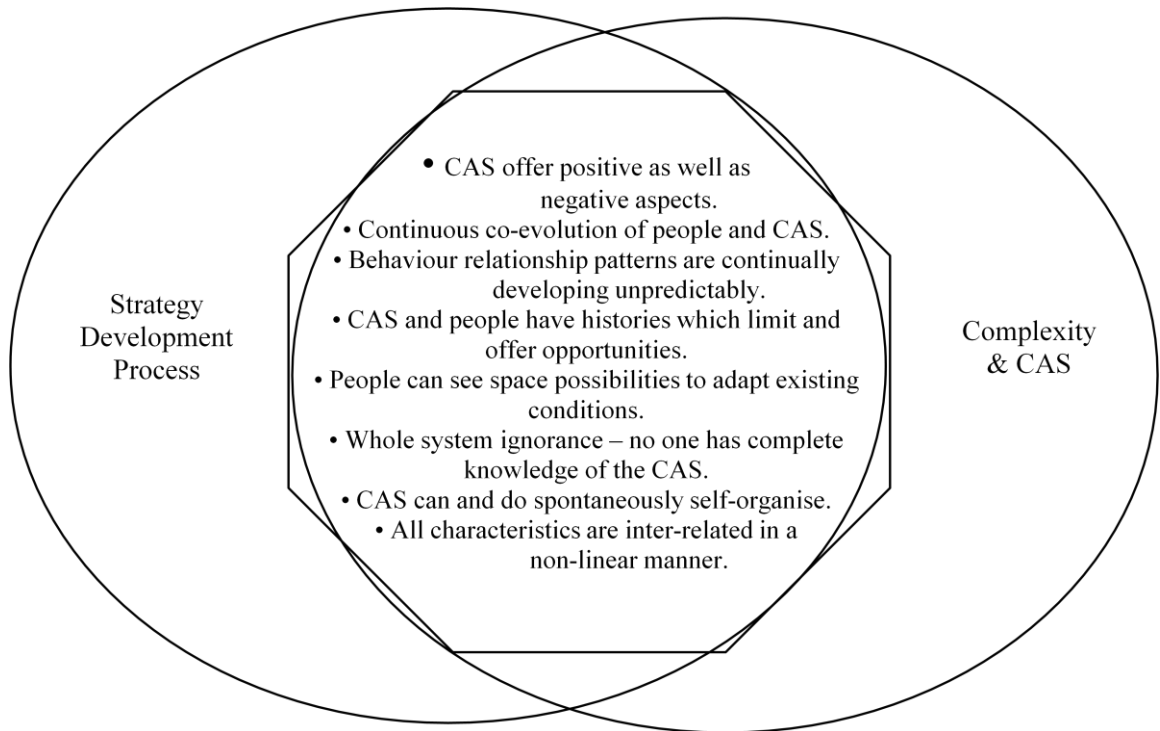


Figure 6 – Conceptual Framework

The interviews were analysed by listening to the audio recordings, referring to the situation notes and reading the interview transcriptions, in some cases many times. This combined approach ensured the focus was on the interviews and not merely on the text of the transcriptions. The data from all the interviews was first analysed via the SDP model framework mentioned above, comparisons to identify similarities and contradictions between the interviews were made, and conclusions synthesised in the first phase. An example of the SDP analysis of an interview is shown in Appendix 13. The second phase repeated the process by analysing all the interviews via the CAS lens facets, and in a similar manner the comparisons were made and conclusions synthesised. An example of the CAS analysis of an interview is shown in Appendix 14. At the end of these phases each interview had been analysed at least twice. This two phase approach meant that the same data was viewed from two different perspectives, the SDP perspective and the CAS perspective. The final phase of the research was to compare and contrast the analyses

from the two perspectives with reference to the conceptual framework. This was done manually by meticulously underlining, highlighting and noting the words, phrases and meanings that referred to each aspect in turn of the eight 'further aspects' found in via the two analysis phases (SDP and CAS), from each interviewee's analysis sheets (examples of which are in appendices 13 and 14). For example, for TT1, the analysis sheets for the SDP perspective were scanned for references to 'CAS and people have histories, which limit and offer opportunities', the fourth 'further aspect' mentioned in the conceptual framework (Figure 6, above). A similar exercise was done for the CAS analysis sheet for TT1, and in a similar manner this final phase of the analysis was done for all the analysis sheets of all the interviewees. It was found that most of the TMT interviewee's analysis sheets yielded useful information, some more than others, and some non-TMT interviewee's analysis sheets yielded very useful confirmatory or contradictory information (detailed in Findings chapter 5, below).

To ensure reliability of the analyses of the interview transcriptions, a sample was cross-coded by an experienced academic researcher, with both the SDP and CAS frameworks and there was found to be 90% inter-coder reliability, which was reassuring and gives the researcher confidence in the analysis (Miles and Huberman, 1994). Analytically, the experienced academic researcher was knowledgeable of my research as he was in the supervisory team, this ensured that he had a good understanding of the coding schemes for both the SDP and CAS frameworks. He was provided with the frameworks used to group the data according to the each code (Appendices 11 & 12) and he coded parts from two different interviews for each framework. Given the high inter-coding reliability it was not deemed necessary to refine the coding scheme.

As the researcher became adept in analysing the interview data via the two perspectives (SDP model and CAS lens) and the conceptual framework, it was considered wise, for reasons of consistency, to analyse the other data gathered in a similar manner. In this

way the documentation, case-study material from the archive data, and ORG data were viewed via the SDP model, the CAS lens, and conceptual framework as they were being studied. This helped in seeing links, confirmations and contradictions with the interview data. Pattern recognition in this research has relied upon the personal analytical skills and store of mental patterns in the mind of the researcher, based on many years of business experience of various organisations in a variety of sectors. Use has not been made of any computer modelling or simulation techniques involving pattern recognition.

No research project is perfect, and this research is no exception. In the following sections the research issues and limitations are explained and discussed, some of which help provide useful information for improvements in any further research that may follow from this project.

#### 4.8 Research Issues

It is the responsibility of the researcher to ensure awareness of any research issues that need to be considered, and resolved if necessary, so that the quality of process and output is to the highest possible standard within the constraints of the project. In this research, as in most social science research projects, bias and ethical issues were considered. Below follows more details on these two issue areas, followed by a summary of the limitations of the design of this research.

##### 4.8.1 Bias Reduction

Bias always influences research, either consciously or subconsciously, and it is the responsibility of the researcher to ensure the research design reduces bias as much as possible. Petticrew (2001) recommends making explicit efforts to limit bias in all aspects of social science research, in his explanation of systematic reviews of healthcare academic literature, a sector where commercial interests of Pharmaceutical companies have been found to bias the research process and outputs. Similarly, Saunders et al.

(2009) explain various ways of being aware of bias and reducing it in conducting interviews, observations, in measurements, and in the responses of interviewees and subjects of observation.

In this research project an effort to reduce bias has been made at all stages and as consistently as possible. To this end the procedure for all interviews was the same, as explained above (section 4.5.1.2). This includes interviewee selection, where the focus was solely on finding interviewees able to provide information on the SDP of the CSO; consistent interviewee briefing, appropriate interview venues and timings, selection of interview transcriber (not connected and remote from the CSO), transcription checks, consistent use of the two analysis frameworks (SDP model and CAS lens), inter-coder checks, and conceptual framework. Because the ORG data gathering was less structured than the interviewing process, occurring as and when opportunities arose, extra care was needed to remain as professionally detached as possible, and ORG data was only used which was verified by another source. The CSO documentation and literature (archive data) on case studies was similarly studied and analysed in a systematic manner as recommended by Petticrew (2001). Use of the researcher's intuition was minimal, but recognition that a long and varied business career provided advantages and disadvantages at various stages of the research was important. Recollections of three periods on the past were verified by third parties, in an effort to ensure that memories of practical business experience were accurate, and were an effort to make explicit any possible areas of bias when referring to intuitive judgements. Reflections on the whole research process to ensure the researcher was 'value aware' and behaving as objectively and professionally as possible within the constraints of the project were also made. Next follows a section to explain the ethical position of the researcher and the ethical issues that needed consideration.

#### 4.8.2 Ethical Issues

This section explores current research ethical issues, codes of practice and ethical guidelines then links these areas by explaining the specific issues of the research project. Its aim is to convince the reader that ethical issues of this research have been considered and the researcher was aware of the appropriate ethical standards, the risks involved and the need to minimise these risks.

Research projects should be exposed to ethical questioning as well as the rigour needed to maintain professional standards. It is also wise to reflect upon the research bearing in mind various and appropriate guidelines, codes and regulations to ensure ethically acceptable processes and outputs are developed. A number of codes and guidelines have been studied in preparation for this research. The Economic and Social Research Council (ESRC) Research Ethics Framework (REF) [2006] is a document that many social science researchers consult. It is based on six core principles, which are summarised as follows:

1. Research should be designed, reviewed and undertaken in a way that ensures its integrity and quality.
2. Research staff and subjects must be fully informed about the purpose, methods and intended possible uses of the research, what their participation in the research entails and what risks, if any, are involved.
3. The confidentiality of information supplied by research subjects and the anonymity of respondents must be respected.
4. Research participants must participate in a voluntary way, free from any coercion.
5. Harm to research participants must be avoided.
6. The independence and impartiality of researchers must be clear, and any conflicts of interests or impartiality must be explicit.

(ESRC/REF, 2006)

In common with many other U.K. ethical codes, regulations and guidelines, the ESRC REF refers to the Data Protection Act – DPA (1998). This act protects the rights of the people with regard to information about them, and a legal requirement of all researchers making use of personal data in the U.K. The DPA states that anyone who processes personal information must comply with eight principles, which make sure that personal information is:

1. fairly and lawfully processed
2. processed for a limited purpose
3. adequate, relevant and not excessive
4. accurate and up-to-date
5. not kept for longer than is necessary
6. processed in line with your rights
7. secure
8. not transferred to other countries without adequate protection

The British Educational Research Association (BERA) ‘Revised Ethical Guidelines for Educational Research (2004)’ falls in line with the ESRC REF and the DPA 1998. It was up-dated (2004) to take into account issues that relate to inductive research strategies. This is particularly relevant to this research topic, approach and strategies. The guidelines, in addition to stressing the importance of respect for people and the responsibilities of the researcher, focus on ‘voluntary informed consent’. Quite rightly ‘no duress’ can be used in research and positive steps must be taken to inform subjects fully about the process of participation, how the data will be used and to whom reported, prior to the start of the research process. “Researchers involved in (inductive) research must consider the extent to which their own reflective research impinges upon others (ibid).”



Aston University, in producing its Research Code of Conduct (Hooley, G.J. 2005), drew upon a number of other codes including the Birmingham University Code of Research Practice (2006). Aston Business School's (ABS) Special Regulations for Research Degrees Programme (REG/04/403(1)) mentions the Aston Business School Code of Practice (Page 12, section 33. Other Regulations, iii). The title of this has been changed to the Research Code of Conduct in June 2005. And, this document seems to be the same as the Aston University Research Code of Conduct (REG/04/76), which appears as Appendix C in the Aston University Code of Practice for Research Degrees (REG/05/249(1)). The guiding principles are very similar to those of the University of Birmingham and are:

1. integrity and professionalism
2. observe all legal requirements
3. appropriate confidentiality and open to scrutiny
4. honesty, integrity and professionalism, observe fairness and equity, avoid, or declare, conflicts of interests
5. acknowledge the contribution of others
6. safety and well being of all

Aston Business School's Research Ethical Guidelines (Evans, 2004) is a very useful document for researchers. Its foundation is on the commonly agreed standards of the good practice such as those laid down by The Declaration of Helsinki (1964). This was adopted at the 18<sup>th</sup>. World Medical Assembly, Helsinki, Finland, June 1964 and amended twice since then at the 1975 and 1983 assemblies. It is based on medical research, but the principles are considered by many to be an appropriate basis for ethical standards in social sciences and business sciences research as well, because human subjects are the main subjects involved. The four guiding principles of the

declaration form the foundation for the ABS Ethics Committee and the ABS Ethical Guidelines and these are:

- Beneficence ('do positive good')
- Non-Maleficence ('do no harm')
- Informed consent
- Confidentiality/Anonymity

(BMJ, 1996)

#### 4.8.2.1 Ethical Issues for this Research

This research involves adult human subjects, and has been conducted with the authority of the ABS Ethics Review Committee. The authority was based on a submission of an application which showed a clear understanding of ethical principles as explained in the ABS Ethical Guidelines. The areas of risk in this research project were:

1. The researcher needed to convince the CSO TMT members that the research would not hamper their day-to-day operations and that they will gain some benefit from the exercise. The potential benefits were a better understanding of how the company actually develops strategy and the knowledge that the company is also contributing to a greater general understanding of strategy development. It was necessary to obtain permission from the TMT members to talk to a number of people, to observe, and for interviews. It was also necessary to explain at the outset that my research is to do with 'developing strategy' and concerning businesses operating in complex dynamic environments, and not about the specific strategy content, which is confidential. Similarly, I needed to inform each subject within the CSO about the research as it progressed.

2. Confidentiality & Anonymity - data collected, analysed and stored, and findings must be done in a confidential manner observing anonymity, unless express permission is given to do otherwise.
3. At no time was duress used to gain access to subjects, encourage participation, or permissions with regard to confidentiality or anonymity. The permission by TMT members or senior management to progress with the research was not used as a right to involve other subordinate subjects against their will. At any time the CSO and/or the people involved were able to withdraw their consent to participating in the research and all data thus far pertaining to them would be destroyed. This was not necessary.
4. All data gathered is responsibly stored, made appropriately accessible and will be responsibly destroyed when the time limits in the guidelines have been met.

The researcher is satisfied that everything possible has been done to conduct this research in an ethical manner.

#### 4.8.3 Limitations of the Research Design

The focus on a single case study, the CSO, means that the main limitation of this research is that generalisation to other cases is more difficult to evidence. However, the links to the data gathered from secondary sources via the other case studies data, although not a main focus provides the opportunity to suggest some indications for other cases. The design of the research also made use of the part-time nature of the project, whilst the researcher was simultaneously in full-time employment, in that it was a longitudinal research project. This allowed in-depth study of the CSO over a long period of time (6 years, 2004-2010) to study the processes used for strategy development. Such a period is rare in social science studies and means that a repeat study in a similar organisation is unlikely. The research project was also a learning process in developing a novel conceptual framework, validating the conceptual framework, combining two areas of

theory (strategy development process and complex adaptive systems) and the testing of a novel CAS lens to complement the SDP model (Dyson et al. 2007). It is not possible to be sure that this approach would produce more or less benefit in studying other cases.

#### 4.9 Methodology - Summary

This chapter has explained the researcher's paradigm as being close to the interpretivist paradigm of Burrell and Morgan (1979), and that an inductive approach has been taken, where the data builds the theory. The research design was a longitudinal, in-depth, exploratory case study of a small UK university involved in the Further (FE) and Higher Educational (HE) sectors, referred to as the case study organisation (CSO). It is also confirmatory as it goes some way to validate the novel conceptual framework developed from the academic literature. 41 semi-structured interviews formed the main core of the data gathering, involving the Top Management Team (TMT) members, senior managers and others, spanning 5.5 years. Secondary data from a previous leadership study, comprising three interview transcriptions; CSO documentation and other case studies material; and observations, rumours, and 'grapevine' (ORG) data (and some intuition) complemented the interview data. The data was analysed via the SDP model (Dyson et al. 2007), a specially developed CAS Lens, and the novel conceptual framework in a structured and consistent manner. The following chapter explains the findings of this research, and subsequent chapters explain the significance of the findings.

## Chapter 5

### Findings

#### 5.0 Introduction

The aim of the research is to discover if CAS theory enlightens the strategy development process, as a core activity of organisational behaviour.

The findings of this research are structured as follows:

- The Organisational Environment
- The Case Study Organisation (CSO)
- Strategy Development Process (SDP)
- Complex Adaptive Systems (CAS) Perspective
- The SDP & CAS Findings Related to the Conceptual Framework
- Summary of Findings

#### 5.1 The Organisational Environment

The main areas that are contributing to the complex organisational environment are: UK demographic trends, international market demand and supply, increased competition (from existing and new areas), changes and uncertainties in government priorities (and the concomitant funding changes), economic environment (current recession and expected long term recovery), student expectations and demands, and employers' needs.

This background information was obtained from the interview data.

From the interviewees it became clear that they are sensing that UK FE and HE environments are rapidly changing and becoming more complex.

*“Some of the threats are demographics, more people go to university when there are no jobs, there are ‘bubbles’ of 18 year olds coming to university in 2012 and*

*2013, English universities charge students, Scottish and Welsh universities don't, the US is opening its borders to students and the UK is restricting students with the 'Tier 4' points system (for immigration), we are way behind other institutions with on-line based learning facilities, the profiles of overseas students have totally changed because nobody can afford to come (to the UK) for four years, and there are now lots of other universities and 6<sup>th</sup> Form colleges offering what we are offering now" (TT4 quotes).*

The underlying academic cycle (September/October academic year start) still drives the FE and HE annual business cycle for planning and monitoring purposes.

In addition to these general observations, the CSO has been fortunate that the services sector has seen unprecedented growth, both in absolute and relative GDP terms, over the last two decades. This environmental trend has enhanced the CSO's opportunities and assisted the Principal (TT1) to keep his organisation tightly focused on the service sector. The inner city location, of a large UK conurbation has also assisted the CSO. The city and region have focused their strategic development on it being a destination and location for visiting, shopping, leisure, doing business, exchanging ideas and learning; all of which has encouraged service sector development and worked to the advantage of the CSO (source: data from CSO documentation).

## 5.2 The Case Study Organisation (CSO)

The information from the data shows that the study period of this research (6 years, 2004 - 2010) has spanned a relatively significant period of transition in the development of the CSO. The changes appear to have been greater in the most recent four years (2007 – 2010) than in the previous 13 years (1993 – 2006). The latter period, the 13 years since incorporation (1993), when the CSO became independent of the Local Education Authority (LEA), was a period of stability, steady growth and good performance measures. The period since then (2006) has also been of steady growth and good performance, but it has also seen a 'regime change', albeit gradual, where the Principal (TT1) has stepped aside to be replaced by his Vice Principal (TT2). The transition

process has spanned a period of almost two years, where it became clear that TT1 had set all the ‘foundation stones’ in place that he had planned; including, amongst others, Taught Degree Awarding Powers (TDAP) for the CSO, and a name change to include the words ‘University College’, where previously it had only the word ‘College’ included in the name. At the same time as these significant ‘foundation stones’ (TDAP and name change) were being finalised under TT1’s direction, TT2 was, in parallel, conducting environmental and organisational audits as the basis for changes that are currently (2010) being considered, decided upon and implemented under his leadership, as the new Principal.

The period where TT1 was the Principal of the CSO, up until it became clear that a transition was taking place (August 2006) has been termed ‘old regime’. The period beginning where TT2 was officially announced as the new Principal (01/08/2008) is termed ‘new regime’. And, the overlapping, 2 year, transition phase (August 2006 – August 2008) is termed the ‘interim’ for this research. The actual borders of these periods are vague, except for the official announcement mentioned. See Appendix 17 for a summary of the CSO ‘Timeline’, showing significant events.

The regime change, its significance, and its impact on strategy development, was not known at the outset of the research project. It was clear at the start of the project, from observations and ORG evidence, that important changes were a possibility, mainly because of the imminent completion of many of TT1’s ‘foundation stones’, and many of the TMT and senior managers in the organisation were nearing retirement age. The potential changes were one of the reasons for selecting the CSO as the organisation for study.

### 5.2.1 Main Characteristic of the ‘Old ‘ CSO Regime – ‘Positioning’

The ‘old regime’ under the leadership of TT1 could be seen as the ‘Positioning’ phase in the development of the CSO. It was a very careful, slow and steady establishment of a good position in the UK post compulsory educational marketplace, in the service sector niche. Opportunities were taken and threats were avoided.

*“TT1 is continually searching for a secure position for us (the CSO).” (R1SM quote)*

The CSO became an efficient and businesslike organisation, under LEA control (1983 – 1993), under TT1’s leadership. In this period he built up his team of experts and developed the ‘tight/loose’ management style.

*“TT1 was a very young visionary Principal (when he started at the CSO - 1983) strategic, very astute and adept in bringing together a balanced, skilled and experienced team.” (TT9 quote)*

When the LEA’s were disbanded (1993), the CSO became independent and it was already a businesslike organisation. However, it had inherited from the LEA a complicated, long name, that did not include the word ‘university’, and which hampered its promotional marketing efforts, particularly overseas. Funds were accumulated from surpluses of operations and these were used in TT1’s ‘virtuous circle’ (explained in section 5.5.1.1. ‘Virtuous Circle’, below). The organisation grew steadily, increasing student and staff numbers, and reserves of cash and investments in property. At the same time the CSO moved its ‘centre of gravity’ of operations more towards HE education, whilst retaining its strong position and presence in the FE sector, and market niche. Table 6 below explains the growth and FE/HE shift in terms of student numbers.



Table 6 - CSO Student Numbers (including full-time and part-time students)

Year	2004/05	%	2005/06	2006/07	2007/08	2008/09	2009/10	%
FE	4232	53	5134	4122	3118	2842	2810	36
HE	3793	47	3979	4319	4481	4790	4933	64
Total	8025	100	9113	8441	7599	7632	7710	100

Source: CSO Finance Department

The CSO became designated a ‘Higher Education Institution’(HEI) in 2002 by the UK government Department for Industry, Universities and Science (DIUS) as part of the strategy to move its ‘centre of gravity’ more towards HE. The CSO also sensibly allied itself, in 1995, with a large UK university (LUKU), to allow it to confer the LUKU’s more well-known and reputable degrees in non-competing courses (the CSO could at that time not confer its own degrees). This move allowed it to fend off any take-over bids by rival colleges, defend its niche position, and provide a very attractive offer to students as a LUKU degree. Its reputation in its service sector niches was extended internationally and the subsequent growth of international students allowed it to develop teaching and student support capabilities and benefit from market rate revenues, both from the courses and from student accommodation charges.

Early in his tenure TT1 had foreseen the time when the current premises would be full to capacity, hampering any further growth and when it may need to become a ‘university’ in its own right, with an appropriate name, and he had worked towards these ends as his main strategic aims (‘foundation stones’). Secure financial situation, defensible market niche, supportive governors, good TMT, good staff, good reputation and external relationships, the CSO designated an HE institution (for more independence), degree awarding powers, ‘University’ in its name, and a local property portfolio for investment

and premises re-location – these were all the ‘foundation stones’ that TT1 set himself for completion before retirement, and for his successor to build on (source: ORG data).

### 5.2.2 Interim Period between ‘Old’ and ‘New’ CSO Regimes

In his tenure TT1,

*“had managed to (acquire and) set into place most of the pieces of the jig-saw puzzle”* (TT9 quote),

towards his visionary strategic aims (mentioned above as ‘foundation stones’).

Operationally the CSO was being run very well by TT2, along the lines established under TT1’s leadership, which allowed TT1 to step aside to complete ‘the puzzle’ at this time. TT1 timed his decisions well, and was lucky, in that the economic environment worked in the favour of the CSO. Prior to the 2007/2008 economic ‘downturn’, property prices increased to enhance the value of the property stock acquired earlier. The ‘downturn’ facilitated the acquisition of the final ‘jig-saw pieces’ for the property part of the vision, because the property prices fell. The well-coordinated final negotiations with DIUS, closely linked to a very good QAA audit report, facilitated the CSO gaining Taught Degree Awarding Powers (TDAP). This was followed rapidly by a name change to include the words ‘University College’, facilitated by the TDAP. These achievements allowed TT1 to step aside for a successor to take over. After a selection process the governors chose TT2 as the new Principal.

Prior to appointment, in this ‘interim’ phase, TT2 was conducting thorough internal and external audits to put him in the position to understand his options and priorities for the coming years and to prepare for the possibility that he would be the new Principal.

These audits culminated in the ‘Some of the Challenges (that face the CSO)’, with which TT2 “challenged” the newly configured TMT and ‘new’ SMT in the summer of 2009.

These are summarised as:

1. Changes in the UK demographics
2. International students
3. Employer engagement
4. Curriculum
5. Independent Advice and Guidance on students' careers
6. Competition (new and existing)
7. Student residential accommodation – needs versus supply
8. IT infrastructure
9. Political change (UK national government)
10. Fees
11. Diversity of income
12. New estate – what is needed in the future (sports ground, premises, accommodation)
13. University status (Full University Status – FUS)
14. Staffing – skills mix, age demographics, mode of working, titles etc.
15. Other issues – FE/HE split, branding, independence/merger, etc.

For each issue, a TMT member was nominated to lead an investigation and come up with suggestions, options and solutions (source: TT2 interview 02/05/2008).

Externally, in the environment, it was clear to the TMT that the economic downturn would mean a long recovery period, which would affect customer/student demand and would negatively impact public sector budgets, thus reducing LSC and HEFCE funding. Internally, 'progression planning' and the related long-term people management and development was recognised as a major issue.

*“The ‘succession planning’ issue was raised by the last QAA audit and is currently (2010) a significant issue that is exercising the collective mind of the SMT (TMT)” (SM11R quote).*

Despite these issues, the feeling of a TMT member is that the CSO should and is continuing doing what the CSO is doing,

*“Generally, (for the CSO) business (is) as usual, plus contiguous at the edges”*  
(TT3 quote),

because it is well-positioned and performing relatively well, despite the increased turbulence in the external environment.

### 5.2.3 Main Characteristic of the ‘New’ CSO Regime – ‘Consolidation’

2009 was perceived by the researcher as the beginning of a new phase for the CSO, which could be characterised as a ‘consolidation’ phase. The ‘Positioning’ phase mentioned above, required the skills and capabilities of TT1 to acquire, the market position (HE + FE; sector niche; LUKU ally; ‘University College’ name; and good reputation), asset position (cash and investment reserves; local properties for development; excellent current premises, but full to capacity) and a good operational position (excellent quality audit reports; good customer/students demand; balanced, experienced and capable management team, despite weak age profile; loyal, experienced and capable staff). These are now in place and the CSO is better positioned to take advantage of opportunities and counter threats than many of its competitors.

It appears that the visionary strategic aims of TT1, summarised as the ‘virtuous circle’, (as mentioned in section 5.4.5.1.1), are still valid and will continue.

It has already been decided that the current status of ‘University College’ with Taught Degree Awarding Powers, is adequate for the next phase of the CSO’s development. Full University Status (FUS) was considered, but was thought to put the CSO into an unnecessary threatening competitive position. The threats were thought to outweigh the opportunities.

*“(The CSO) is currently ‘below the radar’ and we like ‘the waters to be muddy’”*  
(TT2 quote).

The relationship that the CSO has with the LUKU is very good, but after 15 years, and aware that the LUKU is also trying to cope with the long-term economic recovery, it would be wise to consider a future without that relationship and to make appropriate contingency plans. The CSO is doing this by beginning to set in place its own degrees based on the TDAP mentioned earlier.

*“We are about to validate, we have degree awarding powers and we will be doing a foundation and BA degree in Salon Management (Health and Beauty), so we are moving. There will be others (other degrees courses offered) and as a result of that. That has been a strategy for a number of years. It wasn't an overnight decision to do that. Part of that was you have to identify staff that would be willing and able to teach on that from a base of (lower academic skills). Hairdressing and beauty therapy lecturers traditionally don't have a higher education background, don't have a higher education qualification. And we have put them through qualifications that will enable them to understand higher education and also to be able to deliver (courses) at a high level.” (TT10 quote)*

It seems that such members of staff are difficult to acquire on the open labour market.

With the above in mind, it appears that the CSO is facing a more turbulent external environment (public sector funding restrictions; uncertain student/customer demand, from UK and overseas, in quantity and composition; UK government encouragement for more industry/employer engagement; enabling technologies emerging; demographic trends; competition, more and from new areas; and a changed UK government).

Remaining aware and sensitive to the increasingly changing environment and making the appropriate adjustments to the core strategies set in place during the 'old regime' are the apparent main strategic aims for the 'new regime' of the CSO.

The previous sections (5.1 and 5.2) explained what was found out about the (FE and HE) organisational environment, the CSO in general, and the two main periods of development ('old' and 'new' regimes), and how these periods have been characterised ('Positioning' and 'Consolidation') to provide a situation analysis. The following three sections (5.3, 5.4 and 5.5) focus on the core of this research project, the CSO strategy development process. All of these three sections will first explore the processes by

looking at how the CSO developed its strategy under the ‘old regime’, next any changes perceived in the ‘interim’ period, and then how it currently is developing its strategy under the ‘new regime’.

### 5.3 Strategy Development Process (SDP)

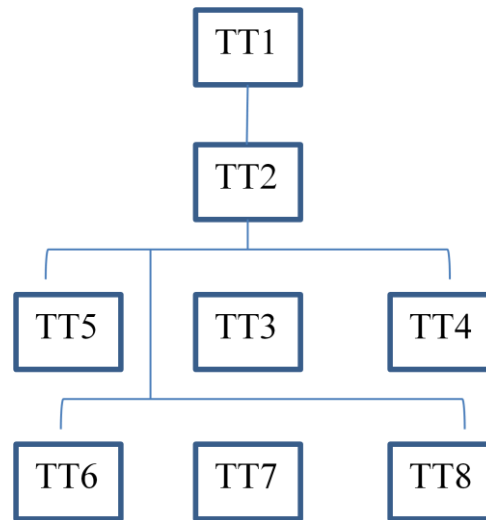
This next section considers the way the CSO develops strategy with reference to the SDP model (Dyson et al. 2007), via the seven elements of the model – Direction Setting, Performance Measurement, Sense-making, Creating Strategic Initiatives, Evaluating Options, Rehearsing Strategy, and Selecting and Enacting Strategy. Because the SDP model is a prescriptive model for supporting strategy development, which also shows the interconnections and feedback mechanisms, it also provides a useful framework by which to analyse the actions and processes of the CSO for developing its strategy.

From the data it became apparent that there is no formal strategy development process used by the CSO, in that there is no prescribed or documented method to follow. The main processes within the CSO’s TMT in developing strategy involve a great deal of informal discussion in small groups on a daily basis and some formal meetings. The informal discussion groups comprise TMT members, both senior managers and TMT members, and senior managers and any other staff and ‘experts’ needed to bring particular insights to a subject under consideration. Some of these ‘experts’ are outside consultants; for example tax experts, advertising and promotional experts, architects and solicitors.

*“All the (funding) returns are audited by PWC and KPMG for funding claims and for HEFCE, QAA and Ofsted.” (TT8 quote)*

The main management meetings structure, under the ‘old regime’, comprised the Senior Management Team (SMT), formed of all eight of the TMT members (TT1, TT2, TT3,

TT4, TT5, TT6, TT7, TT8), which met weekly. Figure 9 below explains the general organisational structure for the ‘old regime’ TMT.



N.B. TT6, TT7 and TT8 were judged to be less significant players in the CSO’s SDP, being involved in the administrative, monitoring and data provision aspects, despite nominally being members of the TMT.

Figure 9 – CSO ‘Old’ Regime TMT Organisational Chart

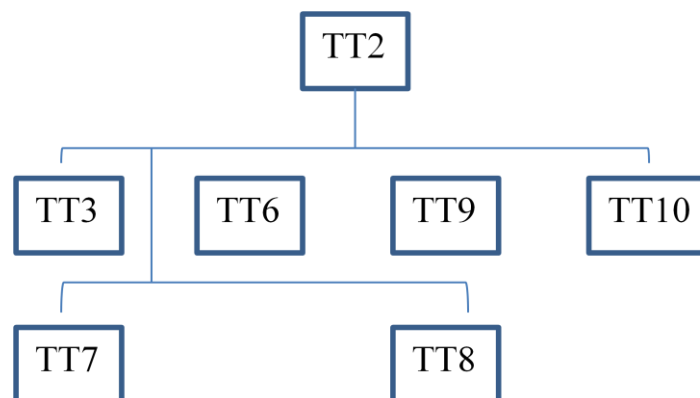
Various sub-groups of these meetings have ad hoc, informal meetings as, and when, the need arises and often on a daily basis. The College Advisory Group (CAG) met once a month and included the ‘old SMT’ and more than 25 senior managers, with the purpose of discussing and advising the ‘old SMT’. The ‘old SMT’, considered strategic matters (for example; financial, assets, and external relationships issues) and operational matters that had possible affects on strategic matters (for example; student numbers affecting funding, and performance results affecting reputation, QAA audits, and approaches for joint ventures). The CAG considered only operational matters, but it also provided a forum whereby the TMT were able to sense issues and trends developing within the organisation.

TT1's inner circle of TMT members comprised TT2 and TT5. Their offices were located in the same area as that of TT1, to facilitate very easy contact with each other as required.

*“Strategy is developed top-down in very tight (closed doors) meetings involving TT1 and TT2” (L5 quote).*

As mentioned earlier, this meeting structure was changed to suit TT2 under the ‘new regime’. The CAG was disbanded and replaced with a ‘new SMT’, a smaller group of selected senior managers and appropriate members of the TMT. The ‘old SMT’ was replaced with the Executive Management Team (EMT), where TT1 stepped aside into a semi-retired, consultancy position, and TT5 retired; at the same time TT9 was acquired externally and TT10 was promoted from a senior management position (was SM1).

Figure 10 shows the ‘new regime’ TMT organisational structure.



N.B. TT7 and TT8 were judged to be less significant players in the CSO's SDP, being involved in the administrative, monitoring and data provision aspects, despite nominally being members of the TMT.

Figure 10 – CSO ‘New’ Regime TMT Organisational Chart

The physical location of the TMT offices was changed to allow a larger inner circle to be grouped around TT2, comprising TT3, TT6, TT9 and TT10, for ready access. Appendix 15 shows the change in physical location of the TMT members. The following seven



sections explain in more detail the aspects of how the CSO develop strategy, analysed via the SDP model elements.

### 5.3.1 SDP - Direction Setting

Under the ‘old regime’, the strategy emerges out of many informal interactions between TT1 and members of his TMT, and particularly his inner circle (TT2 and TT5). TT1 decides upon the direction, based on his vision, and the strategy to achieve that vision. The vision, direction and strategy are seen as TT1’s responsibility and his decision area. The hub of the network of formal and informal interactions is TT1, mainly via TT2 as the ‘gatekeeper’. TT1 initiates strategic investigations and considers topics brought to his attention via the sensing processes and performance measures, and is the strategic decision maker. Because of his character, leadership and management style, TT1 seeks and negotiates consensus from his TMT, so that there is collective responsibility among the TMT members for these decisions.

*“The ‘old SMT’ (now EMT) is very informal. The Principal (TT1) is good at consensus, so disagreements are rare; we all agree in the end....The ‘collective responsibility’ principle is fundamental to the (old) SMT.” (TT3 quote)*

It is the Principal that decides on direction and the main CSO strategy. This is considered his main task (both TT1 with the ‘old regime’ and TT2 with the ‘new regime’) and is the accepted view of the TMT, SM and the CSO. TT1’s vision is interpreted by TT2, who writes the Mission Statement that is agreed by the TMT and this is used mainly for external publication purposes.

The mission statement is published in the CSO Charter, a document meant for external readers, any stakeholders who may wish to know about the CSO and its set of values and guiding principles. The first CSO Charter, which was published in 1993, when it became incorporated and gained independence from LEA control, did not include a mission statement. The first mission statement was published in the CSO Charter in 1994.

Analysis of the three versions so far published over the last 17 years (since incorporation in 1993) shows some subtle changes in the stated direction:

- Version 1 (V1) of the Mission Statement appeared in the second issue of the CSO Charter, 1994. *“To create an environment in which all clients can develop appropriate skills, knowledge and quality standards to enable them to compete, with advantage, at any level within the sectors we serve.”* It refers to ‘clients’ (meaning students, customers and others making use of the CSO). The focus was on ‘skills’, ‘knowledge’ and ‘quality standards’ and the (Hospitality and other) service sectors in which the CSO operates. [It has strong links to the college motto “Service Before Self”] The message is to ‘create an environment in which to develop’. This sounds aspirational, and something to achieve. This mission statement lasted seven years until the CSO began moving its centre of gravity towards the HE sector (whilst maintaining its FE sector position) in 2001.
- The second version of the mission statement (V2) was published for the 2001/2002 academic year, at the time when the CSO was aiming to become designated an HEI (Higher Educational Institute), which it acquired in 2002, and as it sought to acquire Taught Degree Awarding Powers (TDAP) and thus potentially gain more independence. *“Our aim is to maintain an environment that encourages and supports participation in the learning process by all those with the ambition and commitment to succeed. As a specialist provider of further and higher education vocational programmes, we will promote a culture of scholarship and opportunity that equips students with the appropriate skills, knowledge and quality standards to enable them to compete, with advantage, at all levels within the sectors we serve.”* V2 assumes that the ‘environment in which to develop’ has already been achieved, and now it needs maintenance. A shift in the organisational environment is also detected; from developing ‘clients’

‘skills, knowledge and quality standards’ towards one which ‘encourages and supports participation in the learning process’. The focus has also moved from ‘clients’ to ‘all with the ambition and commitment to succeed’, which could be seen as students and staff, the whole CSO. This second version extends the ‘development environment’ of V1 to an organisational environment with a ‘culture of scholarship and opportunity’. It refers also to ‘all levels within the sectors we serve’, extending the scope of the CSO to education, ranging from FE to HE and to post-graduate levels. With the above comments in mind, it is clear that V2 is an extension of the V1, because it also still includes the mention of ‘skills, knowledge and quality standards’.

- This current and third version (V3) was published at the first stages of the ‘interim period, as the ‘new regime’ was beginning to emerge (2006/2007). *“To promote and provide the opportunity for participation in the learning process by those with the ambition and commitment to succeed and to establish a learning community that meets the diverse needs of our students, the economy and society at large.”* The CSO had become designated an HEI (in 2002) and a ‘Beacon College’ in 2005 and the way was open to focus on TDAP. This V3 mission statement simplifies V2 by focusing on the first part and omitting the remnant of V1, ‘skills, knowledge and quality standards’. The focus is on the ‘promotion and provision of the opportunity to participate in the learning process’. There is also focus on the ‘diverse needs of students’, implying those of international students and others from a variety of backgrounds and social classes. The ‘economy and society at large’ are explicitly mentioned, but the implication of staff seems to have been missed. The ‘culture of scholarship’ mentioned in V2 is replaced by ‘a learning community’ and the need to establish this. This implies that the ‘learning community’ does not yet exist, and is in development, so in this

respect it is again aspirational and motivational and could also be seen as implying the involvement of staff.

The mission statement is compiled from ideas and inputs from TMT members and subordinates, and written by TT2. The Principal, (TT1 for the ‘old regime’; and TT2 for the ‘new regime’) decides upon the final version.

In all three cases, the versions of the mission statements (V1, V2 and V3) do seem to herald new eras in the development of the CSO and could be seen as the basis by which to judge directional and strategic changes.

The data thus gathered indicates that only a few staff members know where to find the CSO mission statement on the website or in publications; few know the wording or can give some idea of what it espouses. There is a clear perception among CSO staff that the mission statement is meant mainly for external purposes. One exception was found:

*“I particularly like our mission statement (V3). I think it is particularly relevant, but then, of course, having the right staff in the right post and helping the staff, if they are achieving their potential, you are also helping the staff to achieve the students’ potential. If we are all in an educational environment, where we are all supporting students, we are also supporting each other.” (SM6 quote)*

The stated direction as mentioned in the mission statement does not fully represent the strategy direction of the CSO. The mission statement does articulate the set of values and beliefs of the CSO, but the ‘virtuous circle’ articulated by TTI (mentioned in section 5.4.5.1.1) – finances/income for surpluses; surpluses invested in staff and facilities for students; increased student numbers; generates more income – is the main direction driving force of the CSO, and perceived so by most CSO staff.

*“Anything that brings in the money (is the direction that the CSO goes), and as long as it fits TTI’s vision.” (L5 quote).*

The CSO does publish a Corporate Plan (Corporate Plan 2007-2012). It is a very superficial document of only 12 pages, and presented in the style of a brochure. It states

and expands the values and beliefs as mentioned in Version 3 of the Mission Statement, as explained above, and has five main sections (1.Students; 2.Learning, Teaching and Quality Enhancement; 3.Staff; 4. The College Estate; and 5.Governance, Management and Sustainability), preceded with a brief recent history of the college, and ending with a future vision of the college (in 2012). Each main section has 4-5 'strategic objectives' and 4-7 'indicators of success'. The tone of the Corporate Plan is 'soft' reflecting the values and beliefs mentioned. The 'harder' aspects of the business-like 'virtuous circle' explained in section 5.4.5.1.1, are only briefly mentioned. For example, the only 'harder' aspect mentioned is the financial 'strategic objective' of, "maintain strong financial performance to enable strategic investment in key resources." and the 'indicator of success' for this is, "Financial stability"; both reflecting the core of the 'virtuous circle'. There are no figures, tables, graphs, or specific targets mentioned in the Corporate Plan. From ORG data, few non-TMT staff members are aware of the existence of the CSO Corporate Plan and do not know what it contains or where to find it. It is published on the CSO website, as one of three items under the heading of 'Strategic Plans'. The other two items are the operational strategies, a 'Learning & Teaching Strategy 2005-2010' and a 'Widening Participation Strategy' 2005-2010'. These document part of the operational strategies of the academic departments of the CSO. It appears that the Corporate Plan and published strategic plans mentioned ('Learning & Teaching Strategy 2005-2010' and a 'Widening Participation Strategy' 2005-2010') are items published on the CSO website to evidence to external stakeholders that a plan does exist for the CSO. These website mentions of the CSO strategy have yet to be up-dated.

Formal strategy decisions for important matters are made, based on formal documents that are discussed at formal meetings. For very important matters, CSO main strategy topics, for example, are approved at the meetings of The Corporation of the CSO (the Board of Governors). Appendix 16 explains the formal meeting structure of the CSO

and shows the Corporation as the highest level in the hierarchy. (The Corporation is equivalent to a supervisory board of management, as in some private sector commercial organisations.)

The interview data shows that there is some disagreement between the TMT members as to how the main strategy is decided. Most of the TMT imply or explicitly mention that the Corporation ‘approves’ the strategy decisions made by the TMT (TT1, TT2, TT4, TT5, TT6, TT7). Only one, TT3, explicitly said that the Corporation ‘decides’ the CSO main strategy.

*“The Corporation decides on strategy following advice and discussions with SMT members. The SMT sets the strategic vision, but ultimately it is the Corporation that decides. SMT and the Corporation are always in complete agreement. The Corporation checks the strategy and direction. The SMT develops strategy”* (TT3 quotes).

This is interesting, because the ‘formal decisions’ may indeed be made at the Corporation meetings, according to the ‘The Instrument and Articles of Government’ of the CSO. In this document one of the responsibilities of the Board of Governors is mentioned as being “(a) the determination of the educational character and mission of the College and for oversight of its activities.” The responsibilities of the Principal include “(a) making proposals to the Board of Governors about the educational character and mission of the College, and for implementing the decisions of the Board of Governors; (b) the organisation, direction and management of the College and leadership of the staff;” However, the reality is that the Principal makes the strategy decisions, aided by the TMT, which is responsible for directing and overall operations of the CSO, which are approved by the Corporation. This is confirmed by the following:

*“(The CSO) strategy is developed by the SMT and agreed by the Governors (The Corporation).”* (SM11R quote).

*“The Corporation does not develop strategy. The SMT and other CSO processes develop strategy. The Corporation approves strategy, that is presented to them for implementation.” (TT2 quote)*

The TMT and the Corporation have both been very stable for at least 13 years (1993 – 2006) and the evidence shows that the members of both strive and achieve consensus on all decisions.

*“The Chairman of the Corporation has also been very stable (for a long period of time).” (TT9 quote).*

The TMT has a principle of ‘collective responsibility’.

*“The ‘collective responsibility’ principle is fundamental to the SMT.” (TT3 quote).*

This principle and the leadership skills of TT1 are the drivers of the consensus decisions of the TMT.

*“The SMT and the Corporation are always in complete agreement.” (TT3 quote).*

Little has changed in the direction setting aspect of the CSO under the ‘new regime’, if anything the ‘new regime’ TMT has become more powerful.

*“The main strategy process now, for deciding strategic issues, like main teaching facilities, is first discussed at the EMT, then at the ‘new SMT’, then the matter goes on to the Corporation for approval. The ‘old regime’ had fewer strategy variables, both internally and externally. The current situation is more complex and needs more involvement.” (TT9 quote)*

This is interesting because it appears from this quote that the EMT, a smaller group, closely aligned to TT2 (because he selected those he wanted) now makes the strategy direction decision, involves the next level down in the hierarchy, the ‘new SMT’, to a some extent, and then seeks approval from the Corporation.

*“The Corporation, or Board of Governors, ‘rubber stamp’ decisions by the SMT (both of which, the Corporation and the SMT) are controlled by the TT2” (L1 quote).*

### 5.3.2 SDP - Performance Measurement

This aspect of the strategy development process is very thoroughly managed within the CSO as a significant part of the ‘sensing’ process. TT2 is the architect and driver behind the performance measures and the processes put in place to compile and monitor them. The CSO produces a 200-page book entitled ‘Performance Measures and Targets’ (PMT) each academic year, under the guidance and direction of TT2. The development and production of this document is seen by TT2 as a significant achievement, of which he is clearly proud. This forms the basis of all the aims, objectives, targets planned versus ‘actuals’ to suit the needs of the various external bodies that need to scrutinise an HEI (HEFCE, LSC, OFSTED, QAA, for example). The performance measures and targets recorded are in excess of the requirements of these bodies and serve as extra control tools for the EMT, SMT, and TT2 in particular.

*“Everything in this college is channelled through him (TT2), even down to the minutest detail.” (S1 quote).*

*“Everything is measured that can be measured.” (SM10 quote)*

*“There must be tight control of the important things (funding finance and budgets) and looser control of other things (curriculum, strategy, programmes, target groups) a sort of benevolent Stalinism” (TT1 quote)*

*“TT6 and TT7 are brilliant at examining cost effectiveness (of options) for decision support.” (TT3 quote).*

*“In the QAA, HEFCE and LSC audits the CSO is praised for its excellent quality systems and processes and strong financial ratios, the best in the UK HE sector.” (TT5 quote)*



*“The level of (students) ability when they come in, and what we add in value, I think is quite good; as most go out with a top 10 UK university degree. (referring to the LUKU, whose degrees the CSO confers) We (also) have quite a high profile in QA. We have really good reports on this.” (TT4 quotes)*

Referring to student satisfaction:

*“There is a satisfaction questionnaire for every module; at the start and finish of every course, for the Library, Resource Centre and the Café, etc.” (TT3 quote)*

Considering the ‘virtuous circle’, as the main driving force for the CSO, mentioned above (finance, facilities, staff, students), and referring to the latest available CSO ‘Performance Measures and Targets’ (12<sup>th</sup>.edition - PMT 2008/2009), it is clear that monitoring and control are significant element in the culture of the CSO.

An interesting aspect of the very good CSO performance measurement processes, data gathering, analysis and reporting are the influences on reinforcing the ‘control culture’ of the organisation. The flow of information is continually cycling from bottom up to the TMT and top down to the operational and functional areas, in various daily, weekly, monthly and academic-diary cycles. Because these flows are very strong, there is little cross-functional interaction and many processes and systems are not ‘joined up’. The very tight control of operations means that assets are very well utilised. The students’ accommodation is always full; the lecture, seminar rooms and teaching facilities are well utilised (see above); and the staff are timetabled and monitored very closely so that there is very little slack time. This all contributes to the ‘control culture’ and produces the excellent financial and budgetary results. The mention of

*“the CSO controls with many enforceable rules, which it may choose to do sometimes.” (SM15 quote)*

also evidences a ‘fear factor’ element as part of the ‘control culture’. There are downsides to the tight controls and these become apparent in the more qualitative aspects of ‘creating strategic initiatives’ (section 5.3.4 below).

### 5.3.3 SDP - Sense Making

*“You must cheat ! (meaning) doing things better than the rest by understanding the detail, the context and the people. The opportunities and threats are in the detail.” (TT1 quote).*

The inputs to the informal discussions are items of information from very extensive, active and dynamic networks of contacts, with a wide variety of stakeholders. The ‘sensing’ process is highly developed, refined over many years and has served the CSO very well. Many of the network contacts are external to the organisation, representatives of - educational bodies, employers, government departments (local and national), funding agencies, quality assurance agencies, Corporation members, external examiners, industry sector representatives, and other stakeholders.

*“Government, Department of Education, HEFCE and LSC can change things very quickly and unpredictably, so you must keep a critical eye on things and be careful to monitor our position.” (TT1 quote).*

*“The ability to see potential problems and make changes and the (general) awareness of the operating environment (are the most important factors to success. There’s always dialogue with the students...learn about their background...find out what’s good for them. It is the responsibility of EMT members to scan the external environment (and be aware of internal developments). Some have a wide horizon, others are more focused. The CSO and the EMT is very good at reading between the lines and sensing what is going on in the external environment. The ability to see potential problems and make changes and the awareness of the operating environment are the most important factors to success. The only reason the college is so successful is because it is responsive and flexible. I personally need to have a lot of knowledge about recent developments; legislation, curricula and pedagogic theory, government’s policies overseas, financial regulations, etc.” (TT3 quotes).*

The outputs of the discussions are usually draft papers that ‘crystallise’ ideas on opportunities and threats sensed via the above mentioned sources, which are circulated to appropriate TMT and SM groups for another iterative step of discussion and write-up.

The topic is either dealt with, dropped or is progressed to a higher level and to more formal meetings for acceptance, approval (or rejection) and implementation.

#### 5.3.4 SDP - Creating Strategic Initiatives

Referring to the above section about performance measurement and targets, it is clear that the important creating strategic initiatives element of strategy development is limited by the ‘control culture’ of the CSO. A few items of data mentioned below evidence this:

*“Creativity is not sought; in fact, it is actively discouraged. There are plenty of ideas from the ranks, but this is not encouraged or facilitated.” (SM10 quote)*

*“Emergent and/or peripheral inputs are stifled, and us staff, do we know what are the core strategies (we are supposed to follow)? (No)” (SM15 quote)*

*“In my first year here (at the CSO) I had all sorts of ideas to improve things, particularly to do with my course, but I’ve learned not to come up with ideas, because you get dumped on to do all the additional work, but you’re not given any time to do it in. So, I stopped coming up with ideas.” (ORG data, L20, 2007)*

These quotes above, all come from senior managers or lecturers. It appears from this that lower in the CSO hierarchy (than TMT level), there is some frustration in getting ideas recognised or sanctioned by the TMT.

The following few quotes are from members of the TMT:

*“We’ll design something like ‘Pre-Masters’ courses. They (the students) aren’t good enough to go (straight) into masters courses, so we’ll develop a ‘pre-masters’ course (as preparation for the masters course – which provides additional revenue opportunities). They do this in Australia.” (TT4 quote)*

*“For example, developing Tourism courses (at a time the city was developing inward tourism opportunities), which enabled us to offer more HE courses and access to new markets (with little investment)” (TT1 quote).*

*“(Ideas) can come from anywhere; then channelled via the structure/hierarchy into the discussion informally, then formally.” (TT3 quote).*

Observations, Rumour, and Grapevine (ORG) data also have elements confirming the above items, where the TMT members feel that creative initiatives can originate from anywhere in the organisation, but non-TMT staff feel frustrated and that they are discouraged from creating strategic initiatives, mainly by the control culture . There were not many data items that could be classified as ‘creating strategic initiatives’, which in itself is an indication of this being a weaker element of the CSO SDP process. From the data gathered, it is clear that initiatives need to be sanctioned by the TMT (and in most cases by TT1 and TT2) before they can be explored and progressed. The ‘control culture’ stifles creativity; yet at the same time if initiatives reach a TMT member, then they can become ‘strategic’ initiatives.

There are signs that the weakness in creating strategic initiatives has been recognised. Under the ‘new regime’, changes in accepting more bottom-up ideas are being encouraged. The current funding environment has forced a search for new funding streams to fill the funding gaps now becoming apparent. The following evidences these changes:

*“The first ‘new SMT’ was established on 01/08/2008, comprising the EMT and a cabinet of wider talents.” “There was poor succession planning... (part of the solution was) an extended SMT to involve more people and widen participation.” (TT2 quotes)*

*“The CSO process is top-down and now more bottom-up ‘options generation’ and finding out what is possible.” “The changes in funding we saw 12-18 months early, so we could push into new areas, such as ‘employer engagement’” (TT3 quotes).*

During a recent (20/04/2010) CSO staff communications session, the second between TMT members and staff,

*“The EMT has decided that employer engagement (and business involvement) is now strategic”. “We all need to work together.” (TT3 quotes)*

And, in response to a question of ‘Why now is it all of a sudden strategic ?’

*“We are doing this now because we have to.”* (TT2 quote, referring to the UK economic situation and the funding issues).

During the communication session it was also announced that the CSO Business Hub, previously known as the Knowledge Transfer Department, is the focal point for all employer engagement activities and links with industry, with the aim, of rapidly developing another substantial revenue stream from these activities. Investment has already been made in a Customer Relationship Management (CRM) computer system, which is being implemented, to facilitate the transparency of potential customers and their requirements, and matching of staff capabilities and experience, to satisfy those requirements.

#### 5.3.5 SDP - Evaluating Options

There is no formal process to evaluate options within the CSO, except the meticulous costing (of the quantitative aspects). The main evaluation process appears to be based on ‘gut feel’ based on experience, from informal discussions within the TMT.

*“(TT1) walks around the problem 20 times.”* (TT5 quote)

*“Collective responsibility principle is fundamental to the (old) SMT.” “TT6 and TT7 are brilliant at examining cost effectiveness (of options) for decision support.”* (TT3 quote)

*“The issues are: Recession, Pay, Diversity of courses, Collaboration, Branding, New HE funding framework, new estate, Workforce development, Demographics, Curriculum, Employer engagement, Full university status (FUS), HE applications up 37%, HE students numbers and investments cap, Competition, Redundancies, International students (accounting for 10% of income), Variable fees, Machinery of government changes...”* (TT2 quotes)

*“The (old) SMT discusses and evaluates options. TT7 costs them expertly. The Governors also provide input to options and evaluations. The name change and*

*TDAP occurred very rapidly, requiring quick decisions at short notice. The new name (CSO name with 'University College'), and its introduction and promotion (was very rapidly decided upon)."* (TT5 quotes)

*"The Corporation is not an actor in the (strategy development) process. None of the members (of The Corporation) have the skills or experience. No external body has a role in the (strategy development) process."* (SM12 quote)

*"At Admissions level, options don't get discussed. It doesn't get that far. The EMT and 'new' SMT are the assessment forums."* (SM10 quote)

And, referring to the search for international students:

*"We need to assess which markets we should go for – China, India, Eastern Europe. When a need for change comes along we are very good as an institution at recognising that need and responding very quickly to it. You need an awareness of educational vision and the financial ability."* (TT3 quotes)

There was no evidence found of any evaluation process that respondents could articulate, apart from discussion, which was mainly informal and in very small tight groups involving a few members of the top team. No formal option evaluation process was mentioned nor discovered during the investigation. When interviewees were asked whether decisions were taken by any particular voting process, a show of hands, for example, the mentions of consensus and collective responsibility were made. The impression given is that the TMT members interact very well, have known each other a very long time and that agreements on actions can be obtained very easily based on intuition and experience. When comparing data about the 'old' and 'new' regimes, with regard to the 'options evaluations' element of the strategy development process, no change was perceived.

### 5.3.6 SDP - Rehearsing Strategy

This element of the CSO SDP, as a formal process, has been perceived in the investigation of this organisation as not being significant. The few examples found are mentioned here:

*“Interacting with the Board of Governors is one way (the CSO) assesses strategic opportunities and tests out ideas (they will have been fully worked out by then.)”* (TT5 quote)

*“We started offering degree courses (to give it a try). We started it (‘block teaching’ overseas) and it worked very well and it grew from there. Now, we’ve got to try 3+1 (Three years study in China, where the CSO contributes to courses and one year back here in the UK, for the final year.)”* (TT4 quote)

*“Opportunities are tested, like the move to include Adventure Tourism courses in the Tourism portfolio (of courses)”* (TT8 quote)

Referring to the ‘Off-site’ Child Care courses:

*“It was a pilot for about a year, ten years ago (1998) we had an enquiry from a local school (where some of our Child Care students did their work placement), in one of the most deprived areas of the city. They had a group of parents that would not normally come (to college), Asian background, single-parent backgrounds and because of the cultures they lived in, and probably the family were male dominated environments, we were asked if we would be interested in teaching ‘off-site’ (in this local school, Classroom Assistant and Nursery Assistant courses). It went really well. Now we have about 15 sites across the city (where we deliver these courses ‘off-site’)”* (SM4 quote)

It is clear that trials and pilots are methods that the CSO uses to see if new initiatives are viable. They require TMT backing and authorisation and the costs and benefits are well worked out before a decision to go ahead is made to start the trial. If the trials are successful, the venture is extended as opportunities and resources allow. There is no formal process, simulation, or model of virtual reality that is used to ‘rehearse’ a possible option or series of options. The closest to this is the cost and benefits analyses, usually done by TT6 and TT7, for any significant project.

It is clear, however, that TT1's mental model of the 'virtuous circle' combined with his process of continual discussion with his inner circle of strategists and supporters may provide a useful rehearsal process in the absence of any formal process.

*"(TT1) walks around the problem 20 times" (TT5 quote)*

*"(TT1) is continually searching for a secure position for us (the CSO)" (RISM quote).*

*"Ideas can come from anywhere; then channelled via the structure and hierarchy into the discussion, informally." (TT3 quote)*

*"The 'old SMT' (now EMT) is very informal. The Principal (TT1) is good at consensus, so disagreements are rare; we all agree in the end. The 'collective responsibility' principle is fundamental to the SMT." (TT3 quote)*

*"I'll discuss with other people and then I'll make the decision. I'll discuss with them how I think some things should be. It's essential to compromise. A consultative style is essential to success and the key decisions are only taken after meticulously costing the options." (TT1 quotes)*

This informal strategy rehearsal element of the CSO SDP could be as powerful as a formal process. The practice of continual informal discussions and relating these to TT1's 'virtual circle', although not explicit, does seem to be the process in reality and has worked well for a long period of time.

### 5.3.7 SDP - Selecting and Enacting Strategy

The CSO sticks to what it is good at and only makes changes that are very close to the current way of operating.

*"Be courageous to make changes, and not to make changes." (TT1 quote)*

*"Our strategic plan is to keep achieving the same sort of level of (student) recruitment each year and also to improve on facilities." (TT4 quote)*

*"Generally business as usual, but contiguous at the edges." (TT3 quote)*

*"The current thinking is 'let it roll on.'" "The EMT and the 'new' SMT are the assessment forums, and (then) it's delegated and directed for implementation." (SM10 quotes)*



Changes are made that are very close to the current direction, the set of values as described by the mission statement (V3), and the ‘virtuous circle’ as the basic CSO business model. They are changes that are necessary because of the perceived or expected shift in the external environment or to the internal capabilities, resources and facilities.

*“The shifts in the environment, particularly the funding, pushed us to seek other revenue streams, and we are currently still doing this; via setting up Business Hub for employer involvement (for example). And, (another example is), development of potential international students (markets); via TT4’s new role. And, post-graduate opportunities, for which we need scholarly staff; hence the (staff development initiatives) staff doing PhDs and DBAs and Knowledge Transfer initiatives.” (TT3 quotes.)*

This element of the SDP has also not changed despite the move from the ‘old’ to the ‘new’ regime.

#### 5.3.8 Summary of the CSO Strategy Development Process

Despite the change in regime, from ‘old’ (TT1) to ‘new’ (TT2), very little has changed in the overall process of how the CSO develops its strategy. The process is still via informal discussion of a tight group of TMT members. The tight group has changed, (from TT1 + TT2, TT3, TT5; to TT2 + TT3, TT6, TT9, TT10); the ‘direction setting’ is the same process, but with a different Principal (TT2, instead of TT1), with different personal characteristics. The direction is still the same, where the values are drawn from the version 3 (V3) of the mission statement and the business process model is still perceived as being the ‘virtuous circle’ model devised by TT1. The ‘performance measurement’ remains the same, if anything tighter with more controls, bearing in mind that the architect of the performance measurement processes and outputs is TT2, the new Principal. ‘Sense-making’ and sensing the external environment are very highly developed within the CSO via the formal and informal networks of individuals, and particularly so at TMT level, as inputs to the SDP. These ‘sense-making’ parts of the



Table 7 – SDP Diagnostic Tool applied to the CSO (Dyson et al. 2007)

This distilled summary of data and analysis, based on the SDP Diagnostic Tool, shows that the CSO has room for improvement in the way it develops its strategy in a more effective manner. As can be seen from this section (5.3 Strategy Development Process) above, there are some signs that the CSO is starting to improve the way it develops strategy, albeit in an intuitive manner, under TT2 in the ‘new regime’.

The following section considers the CSO and its strategy development processes from the complex adaptive systems perspective (CAS). It is the result of a second phase of analysis of the same data as analysed in the above section, but this time using the CAS lens.

5.4 Complex Adaptive Systems (CAS) Perspective

This section considers the way the CSO develops its strategy from the perspective of Complex Adaptive Systems (CAS) theories, where the CSO is seen as a CAS. The CAS

Utilising the SDP Diagnostic Tool, based on the SDP model (Dyson et al, 2007), this summary above of the CSO SDP can be structured, analysed in more depth, and distilled, as follows below in Table 7 (***bold italics indicates an estimate of the CSO status***):



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running in the background as the organisation performs its operations. This is true for specific activities such as the focus of this research, strategy development process. These wider aspects were not fully appreciated at the outset of this research project, and their influence was difficult to grasp. However, the CAS lens does help the researcher by providing a facilitating structure between the wider aspects of organisational behaviour, in an effort to understand their influences, and the focus of this research, the strategy development process. In short, the CAS lens provides a link between organisational behavioural aspects and the strategy development process of an organisation.

With regards to general organisational behavioural aspects, an important finding in this research is an apparent contradiction between how TMT members think the CSO is behaving and how differently people lower in the hierarchy think the CSO is behaving.

From the TMT perspective:

*“I think if you’ve got a good team of staff and they know you communicate with them well, they know your vision, they know that you will work together so you don’t need to be on their back all the time. If you delegate, you have to trust them. Yes, on certain things you’ve got to empower your subordinates to do a job, you can’t do everything yourself, if you did everything yourself you would burn yourself out. You surround yourself with the right people. Our Principal (TT1), for example, has surrounded himself with people that have got different skills, some people are good at finance etc.” (TT4 quote).*

*“The Principal is good at consensus, so disagreements are rare; we all agree in the end.” (TT3 quote).*

These examples of data reflects other similar TMT member views, where the CSO vision is clear, all is well communicated and staff are delegated and empowered to do their jobs.

From lower in the CSO hierarchy, than TMT, however:

*“I have got that information (details on where students come from and their backgrounds, on which to base a ‘value-added’ measurement of teaching/learning), yes, but how much do people (TMT members) really want to know about it ? (not at all). We can actually show where our students come from but I don’t feed that into formulating a proper strategy (as I’d like to). We haven’t got one as far as I know.” (SM7 quote).*

*“There seems to be no communication despite (the CSO) being awarded with the ‘Investors in People’ accreditation. It must be a ‘tick-box’ process we want to be seen as having.” (ORG data, L19).*

L19 has no idea what is the CSO mission, corporate plan, aim or objectives are.

*“These have never been communicated. They’re also not easy to find on the website, nor who to ask for them. They (the TMT and senior managers) do not seem at all interested in the staff (particularly academic staff) – as long as we are here, doing our jobs and the related admin and in looking after students, all is OK. Staff training is a laugh. There are only irrelevant courses on how to use an electronic whiteboard, health & safety, first aid, etc. There is no real understanding of what each person really needs or wants. The internal processes are amazingly inadequate. Nothing is joined up. There’s no consultation on what is needed in real situations.”* (ORG data, L19)

These latter ‘staff’ quotes/mentions are examples of contradictions with the TMT members’ views on what is happening in the CSO. They connect with the wider aspects of organisational behaviour mentioned above (culture, habits and rituals, customs and traditions).

There have been very few and only subtle changes perceived as a result of the regime change from ‘old’ to ‘new’. The CSO has generally been directed and managed by a very tight, small group of TMT members. In the ‘old regime’, it comprised TT1, TT2, TT5, in close physical proximity, with the frequent involvement of TT3 and TT6 from offices on other floors of the same building. In terms of strategy development, the main discussions were between TT1, TT2 and TT5. TT1 was the main strategist who decided on direction and the strategies based on his basic set of values, excellent grasp of important details from all the data sensed, his vision, experience and intuition. The ‘new regime’ comprises a slightly larger core team in close physical proximity; TT2, TT3, TT6, TT9 and TT10, with a more controlled and organised involvement, via the new regular meetings set up, of wider group involvement (the EMT - Executive Management Team = TMT; and the ‘new SMT’ - Senior Management Team = TMT + selected senior managers). In terms of strategy development, this ‘new regime’ appears to want more complicated and structured inputs to reflect a more complex evolving external organisational environment, more comprehensive internal performance measurements, and better monitoring and control mechanisms. TT2 is now the main strategist, but his

vision appears to be based on continuing his predecessors (TT1) vision. TT2's decisions appear to be based on very good judgement, supported by the extensive inputs from a complex array of external and internal data. These subtle changes reflect the 'positioning' characteristic of TT1's 'old regime' and the perceived 'consolidation' characteristic of TT2's 'new regime'.

The wider aspects of organisational behaviour, culture, power, politics, hierarchies, habits and rituals, customs and traditions are not the focus of this research, but some of their elements in terms of processes and systems can be perceived via the facets of continuing varying interaction (CVI), pattern development (PD), self-organisation (SO) and people factors (PF), which are the facets of the CAS lens. The findings per CAS Lens facet will now be explained.

#### 5.4.2 CAS Facet – Continuous Varying Interaction (CVI)

As a reminder, CVI represents complex, continuous, rich and non-linear interactions (involving positive and negative feedbacks) with a large number of people in both local and remote connected, open systems, where relationships co-evolve. This facet shows that the CSO relies mainly on a great deal of informal interaction. There are many informal one-to-one and small group meetings of TMT members, sometimes involving senior managers and sometimes involving external representatives, on a daily basis, discussing a great variety of subjects. It is very difficult to detect particular meetings that form a specific part of the process for developing strategy. There are so many and they are not minuted. From what has been observed and from interview data, much of these meetings involve various continuous sensing processes to detect opportunities and threats and find solutions to these. The TMT members, to various degrees, make use of the hierarchy within the organisation, because the direct reports are the people they generally know better. There is also a network and hierarchy of more formal regular meetings at TMT level, senior management level and in the functional departments. Most of the



formal networks of regular meetings, particularly at levels below senior management level are for operational matters.

With regard to overall corporate strategy development, which is at TMT and senior management level, the vertical information flow seems to be stronger upwards in the organisation for sensing; but weaker downwards in the hierarchy for communication, as can be seen diagrammatically from Figure 11 below. The strongest horizontal interactions seem to be within the TMT, between the members. The next strongest (horizontal and vertical) is in the functional departmental hierarchies, and weakest horizontally between functional departments at levels lower than TMT, and particularly lower than senior managers level. Most TMT members and functional department members are rarely seen outside their particular functional area. Via data gathered from observation, discussion, and at social gatherings, such as the CSO Christmas party, members of non-TMT staff seem only to know their immediate work colleagues, or past colleagues, and usually only those in their own functional area (ORG data).

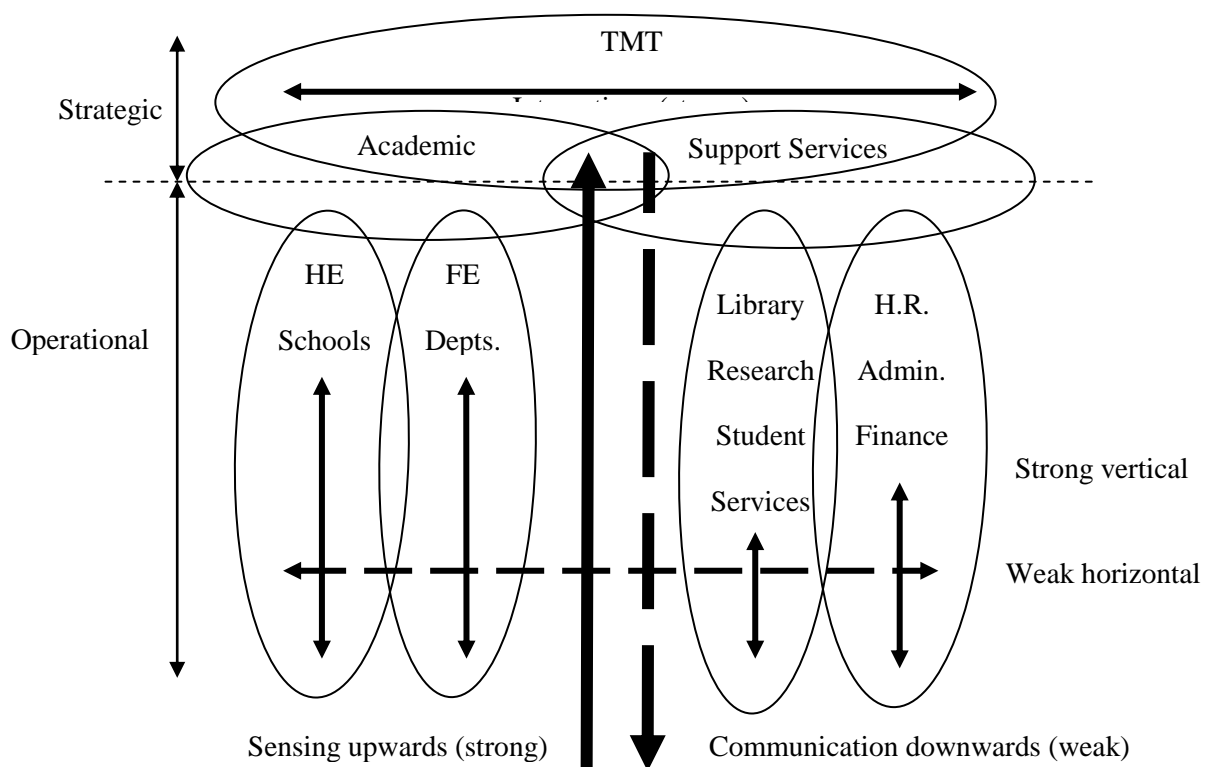


Figure 11 - CSO Main Communications Flows and Interactions

From observation it has been noticeable that under the ‘new regime’, the TMT members (via TT9, in particular, because he is trained, experienced and aware of people issues, and is responsible for the CSO Human Resources) have recognised the imbalance in information flows, particularly those between the TMT and non-TMT staff. To improve this imbalance, at a time when the external environment needs to be more comprehensively sensed, communication downwards throughout the hierarchy has been improving. For example, TT7 was involved in a staff communications session explaining a new procedure for informing the Finance Department of ‘withdrawn’ students, so that grant payments are stopped for these students in a timely manner. This was the first time TT7 was seen addressing such a large group outside his functional area (from data gathered from other staff members in the audience – ORG data). Similarly, TT9, a new member of the TMT, an expert in ‘Estates’ and HR matters and recruited externally from another employer (although previously employed by the CSO, and known to TT2), was introduced at the first ‘new style’ staff communications session to explain the CSO policy for ‘Estates’ and the plan to develop a recently acquired city centre site for a new university campus. A second of the ‘new style’ staff communication sessions, allowed another rarely seen senior manager, SM4, to explain the CSO policy on ‘Employer Engagement’. This was done with a view to increasing CSO sensing of the external environment, by trying to gain acceptance from staff to link their own professional networks to the newly installed CSO ‘Customer Relationship Management’ (CRM) system. In short, the ‘new regime’ intra-communication is developing to be more open from the top of the hierarchy downwards and also trying to improve cross-functional communication, to redress the imbalances mentioned above.

*“Three years ago (2005) there was zero transparency (0/10), now (2008) there is three or four out of ten (3-4/10). We’re not half-way there yet, but I have hope.”*  
(S1 quote)

Further information below, from the various interviews, supports the above distillation.

#### 5.4.2.1 CVI – Top Management Team (TMT) Interactions

It has been possible to be very sure that the processes the TMT uses to develop strategy is similar to any other activity it performs, such as operational matters, handling regulatory issues, crisis resolution and urgent issues resolution; and this is via discussion. Most of this discussion is informal in small groups, both internally for CSO matters and externally for interactions with stakeholders. The interactions are simultaneously to do with sensing the internal and external environments and in communicating decisions and preferences on how issues are dealt with. The following set of quotations clearly evidences the TMT interactions:

*“Key decisions are taken by a relatively small management team (TT1, TT2, TT3, TT4).” (TT1 quote).*

*“I’ll discuss with other people and then I’ll make the decision. I’ll discuss with them how I think some things should be. It’s essential to compromise. A consultative style is essential to success and the key decisions are only taken after meticulously costing the options.” (TT1 quotes)*

*“(The CSO) has very good links with employers and industry (via the Corporation and via operations), for food and drink product development, childcare, health development, hospitality and tourism.” (TT3 quote).*

*“(Communication) is via various networks and relationships, formal communications and many informal ones, people popping in to see each other.” (TT2 quote).*

*“(The CSO) has a lot of operational links with industry – Care (sector), Leisure (sector) and hospitality (sector). We are very good at (sensing opportunities via relationships to help us) develop courses. We get a lot of marketing inputs from student enquiries (Do we have this course ? etc.) and via industry boards (meetings with industry representatives). We try to take into account, firstly student demand, then industry demand (in developing courses). At the (‘old’) SMT, documents are discussed, mostly from outside funding councils, and quality agencies. Funding councils do give us guides – informal tips from network contacts (and we absorb these into our external environment sensing). There is a lot of sensing, networking, informal chats, feeding into formal meetings – all linking together.” (TT7 quotes)*

It has also been possible to discern subtle changes in the TMT interactions. The main changes are to do with expanding the already very good sensing capability to cope with the TMT’s perceived increase in complexity of the external environment and the need for

the CSO to maintain or improve its flexibility and responsiveness; and the simultaneous need to improve internal communications for sensing and for information dissemination.

The ‘new regime’ shift in communication and expanding the sensing capability is evidenced with the following information.

*“TT2 wants to open up and widen the decision-making and get more people involved; in the process of developing (the CSO)’s positioning, for example. The (first) ‘new SMT meeting’, in September 2008, was a good example of the new set up, where those present were tasked by TT2 (“challenged” according to TT2) with considering (the CSO)’s ‘positioning’” [This ‘positioning’ mentioned is not to do with market position, but to do with the CSO’s position with regard to significant issues.] “(The CSO) has a broad idea of where it wants to be, but much depends on government policy. Funding is now limited and this will slow (the CSO)’s growth, unless other funding streams can be found. We have a lot of jig-saw pieces, but we don’t know how to put it all together (yet). The main process now (for the ‘new’ regime) for deciding strategic issues like main teaching facilities is – first, discussion at the EMT, then discussion at the (new) SMT, then on to the Corporation for approval. The ‘old regime’ had fewer strategy variables, both internally and externally.” “The current situation is more complex and needs more involvement. In the EMT, the topic specialists take the lead in the discussion. A draft paper is produced, from a range of inputs. Informal discussions will be had with the Principal and others to gain views of all stakeholders; the aim being to understand the needs and looking towards the future. There is a lot of informal discussion. There needs to be a centralised execution team (the EMT), but these (EMT members) must get out and about and see all areas and all people. Communication is generally good, but wider involvement of all staff is needed. TT2 does this and plans to do more of this. He will be doing more involving in more forums.” (TT9 quotes).*

The next set of quotations was taken from notes on TT2’s keynote speech at the 2009 CSO Conference, where TT2 opened a dialogue with the audience, a novel and welcome innovation.

*“The first new SMT was established on 01/08/2008, comprising the EMT plus a cabinet of wider talents (senior managers, etc.).”*

TT2 asked the audience about Full University Status (FUS)

*“Should we or shouldn’t we (apply for FUS)?”*

He pointed out that there were very few advantages and many disadvantages. The audience agreed – ‘No, to FUS’.

Referring to developing the new campus:

*“Should (the CSO) purchase the 2.0 acre site?”*

Questions from the audience were asked, and it (the new campus) could be developed in phases, in a similar manner to the way the student accommodation was built (a more expensive option, but more manageable, involving less risk and no debt). The general feeling of the conference was that ‘Yes, we should buy the land.’ From observation and discussion with audience members at the time, the general feeling was that these decisions had already been made, and the non-TMT staff members were being asked merely as a formality and for communication purposes. The communication and involvement at the keynote speech was novel and appreciated by the CSO staff (source: ORG data).

#### 5.4.2.2 CVI – TMT and ‘Sensing’ the Internal and External Environments

Referring to the SDP diagnostic tool in section 5.3.8 – Summary of the CSO SDP, this analysis showed that the CSO’s strongest SDP element is the sense-making capability, which is highly tuned. This section goes some way to explain why this is the case, by showing that the CSO’s CVI allows very easy, direct and almost simultaneous connection of the sensing, option generation, option selection and decision-making elements needed for SDP.

Here is evidence to support how the TMT becomes aware of problems and issues by harnessing upward information flows in the CSO hierarchy to the TMT.

*“Listen to people, and get a much better feel for the kind of demand. Teamwork is vital. I empower whenever possible. I give people responsibility wherever*

*possible. Sharing responsibility between (two) people (for personal development reasons)” (TT3 quote).*

*“We listen to the people right down the organisation and a lot of new things we do come from people. Well I think people in small work groups, committees. People send emails saying I think we should improve this. Staff who are external examiners, then they come back and they say that ‘do you know that, so and so have this approach to this, and that approach to that’. People tell us. I think we have got a really good group of staff who think about what they are doing. We’ve always worked with industry here because all our courses are vocational. To do with sensing competitors – Staff tell us, basically, or we find out from publications. We don’t want to be competing with the business schools, not that we ever would, but some people in the business schools see us as competition.” (TT4 quotes).*

*“The (old) SMT and management hierarchy listens to grass roots, students and industry, all very efficiently and thoroughly for a slick response. The TDAP (auditors and inspectors) had difficulty in understanding the CSO structure and slick processes but accepted them as a new hybrid model that works very well.” (TT8 quote)*

These quotes help explain the qualitative aspects of the CVI, where it is not just the number and frequency of connections, in a systemic sense, involved in the interaction process, but also the value, importance and urgency aspects that contribute to the sensing capability.

#### 5.4.2.3 CVI – Communication – Downwards from the TMT

Communicating internally within the CSO has been done mainly via the functional hierarchies. Most of the interactions are informal discussions, but there is also a hierarchy of various committee and group meetings at all levels within the CSO that formalise discussion, enquiries and decisions, becoming more less formal further downwards in the hierarchy. These hierarchical meetings usually confirm matters discussed informally earlier (from ORG data). The following interview quotes evidences some of these downwards communications.

So you mainly communicate with the Senior Management (TMT) and then they pass your message down through the levels? “Yes.” (TT1 affirmation)

*“Communicating vision to staff. Create the atmosphere by taking part in the atmosphere. Listening to people. There is no substitute for being on the ground and talking to people and, information that comes back from people is much more valuable.” (TT3 quotes).*

*“Just keeping people informed so anything that happens externally, anything that goes through the Senior Management Team (TMT) meetings, or other meetings like Academic Board and Governors meetings keeping those staff aware of all the changes. What you want is co-operation; what you’ve got to do is a bit of give and take as a manager. We have to be flexible and adaptable to change otherwise we wouldn’t survive. I try and influence their (support staff and academic staff) work patterns all the time by dropping hints, by chatting to them at appraisals. We’d have to use that (giving orders) sometimes, ‘this has got to be done by a week on Monday otherwise we’re not going to meet the deadline’ you got to say that sometimes because it’s got to get done. You have to meet targets and you have to get things out on time and if you are doing that then you do actually change. The reasons we stay successful are: tight controls, good communication at all levels and because there is mutual trust between the different layers of leadership.” (TT4 quotes).*

Communicating externally is done mainly by TMT members and some senior managers, via a variety of means: through formal meetings with funding agencies (HEFCE and LSC), the QAA, Ofsted and other regulatory bodies or accreditation agencies; formally with the staff unions, and other official bodies such as the Universities and Colleges Employers Association (UCEA) and the West Midlands Higher Education Authority; via professional and personal networks in the various service sectors in which people are involved; and via many media channels such as local press, the CSO website and promotional materials (source: ORG data and CSO documentation).

#### 5.4.2.4 CVI – Interactions in the CSO Functional Departments

Interactions within the CSO functional departments reflect the latter part of the earlier section (5.4.1 CAS Perspective Overview), where the view of the functional department head, a TMT member, does not always agree with the view of some staff members in that department. These differences may reflect management and leadership styles, where departmental sub-cultures are different. The manager/subordinate relationship was not

the focus of this research, but the differences between functional departments detected do show an important aspect of the continuous varying interaction within the CSO.

First here are items of evidence from the TMT member's perspective in their roles as functional department managers.

*“Curriculum content, I can't do it all by myself, I need to do all of these things with other people. Overseas students, a client relationship, to make sure that we are providing them with the kind of knowledge and experience which is good for them rather than that which necessarily they might want. There is always a dialogue with them (students). When I am appointing people (to my department) I am looking for those who share my vision and I do that through discussion with them, collaboratively. I think there is really good co-operation (working within the hierarchy). It's nearly all informal and again this is characteristic of a hospitality organisation.” (TT3 quotes).*

*“Well I think people in small work groups, committees. People send emails saying I think we should improve this. (TT4 quote)*

These next items of evidence show some differences to the TMT members' views on the way communication and interactions occur to those mentioned above, from non-TMT members of staff.

*“I found it (the CSO) a very inward looking college. It was like going back 20 years.” (referring to a defensive element of organisational culture) (S1 quote).*

*“Secrecy is the word that describes the way the TMT operates. No external body plays a role in the strategy decisions of the CSO. TT1, TT2 and TT3 are the main CSO contact people with outside bodies (Ofsted, HEFCE, LUKU, etc.). There seem to be undefined links, lines of communication for raising strategic issues. It's all run from the centre (the Principal and the TMT). Everything from external sources goes over TT2's desk, very rapidly, to another member of the TMT, usually TT3, but rarely TT4, who is considered mainly operational.” (SM12 quotes)*

*“You wonder sometimes if there is some strategic direction, what does it (the CSO) want to be, where does it want to go, questions like this. I don't see what it is, I don't really know if the college knows what to do. Very little communication of direction and strategies (FE or HE, or, both ?). With TDAP and name change (University College) the market has now become larger, different and more competitive. (The CSO) has good human relationships. It's easy to talk to people, they listen (but may not do anything). But, I think the (TMT members) are a bit far removed from what's going on. Some things are very tightly controlled. I think there is an element of absolute control, and that say for senior*



*management, bullying is not the right word, but. But I think people here are paid a tremendous amount of money for what they do and they work very hard to do it but you wouldn't receive that kind of income at many other institutions for the same work. They are paid way over the market prices.” (SM7 quotes).*

The above are negative comments on the interactions between people, TMT people and their departmental staff. There is also some evidence of some positive comments in these interactions, as shown below.

*“There’s a lot of informal discussions in groups, from the bottom up, to find out what is needed and what is realistic. Estimates of student numbers drives everything, all the way up the hierarchy, then there is work with other departments on compromises and each being flexible to reach those student numbers and provide the right facilities for them. There are Planning Days, which are semi-formal reviews of the past period and planning for the next.” (R1SM quote).*

On balance from the evidence obtained, however, the non-TMT staff feel that there is inadequate communication and explanation of what is going on within the organisation. There is insufficient top down informative communication to balance the bottom-up sensing communication.

#### 5.4.2.5 CVI – Interactions with the Board of Governors (The Corporation)

It was not possible to gain access to the individual (industry representative) members of the Board of Governors (The Corporation), nor was it possible to observe a Board of Governors meeting, despite repeated requests (and implied agreement). Despite this some indirect and direct information on the workings of the Corporation meetings was collected, as shown here.

*“The Corporation is not at all a strategic operator in the process. No member (of the Corporation) has the skills and experience to contribute. Very few (non-TMT members) know who the Corporation members are. It merely rubber-stamps the decisions made by the TMT, or more rightly by the Principal. The Corporation has never asked for anything, objected to or vetoed anything and doesn't initiate anything. TT5 is the gatekeeper to access. It would be very interesting to see if you (the researcher) could gain access to any Corporation members.” (SM12 quote).*

Despite this indirect information above, it was possible to interview three (non-industry) members of the Corporation, to obtain an insight to the Board of Governors meetings. The three members comprised two student representative members (G1 and G2) from consecutive years (2008 and 2009) and one long-standing staff member (G3). The information obtained based on their observations at the Board of Governors meetings broadly confirms the above.

*“It seems that everything is decided beforehand and approved at the meeting. There’s a lot of informal discussion prior to and external to the meeting (that) decide things.” (G2 quote).*

*“Any areas that are thought likely to be contentious are dealt with prior to and outside the Board of Governors meetings, so that all that goes on at the meeting goes smoothly.” (G3 quote).*

*“The social interests of the Board of Governors members are mainly golf, property, cigars and sport.” (G1 quote).*

This appears to show that the interactions with the Corporation are indeed part confirmatory of decisions made by the TMT during earlier discussions, and part social occasions prior to and after the formal meetings, to develop relationships and link into the sensing part of the CSO’s SDP.

#### 5.4.2.6 Continuous Varying Interaction - Summary

Summarising this CVI section, it is very clear that there are a large number of informal small groups, meeting very often, where there is continuous interaction, sensing for problems and issues and looking for solutions, which feed into the TMT for decisions. Within the TMT particularly, the members know each other very well and all have worked together for more than a decade. There is considerable trust in their colleague TMT members’ skills and abilities so that each has a great deal of freedom to develop their functional areas and each can be called upon at very short notice for support if

needed. There are no obvious strategy development processes, and nothing formalised. The strategy emerges from the discussions, day-to-day activities, the recognition of opportunities and threats (from the extensive sensing) and becomes accepted, agreed and confirmed via further discussion. When the strategy is clarified, the appropriate parts for communication are written into the more formal documentation for publication. These are for the Corporate Plan, College Charter, and parts of the Performance, Measures and Targets publication, and any other official documents needed by the CSO for external organisations and stakeholders.

There seems to be very little evidence of reflective, long term, strategic thinking that could be described as strategy development process from among the TMT members, and very little awareness of any strategic processes, decisions and information among people lower in the hierarchy than TMT. There is an extensive hierarchical network of formal meetings, processes and outputs, which have evolved to facilitate operations and produce evidence, in the form of outputs, for external agencies to show that the CSO is well run. There are very many informal networks and interactions between people at lower levels than the TMT and senior management to facilitate the day-to-day operations. The 'new regime' appears to perceive a communication and information flow imbalance, where more sensing from a more extensive organisational network is now needed to operate in an ever increasingly more complex environment, for information upwards towards the TMT; and simultaneously most people in the CSO need communication on the direction and strategy. As will be seen from the following sections, there may be a complex dilemma developing, where a more balanced information flow is required, as mentioned above, but tighter monitoring and control systems and processes could limit the flexibility and responsiveness that the CSO has enjoyed for the last 17 years (since the CSO was incorporated).

### 5.4.3 CAS Facet – Patterns Development (PD)

As a reminder, PD means patterns of organisational behaviour can emerge spontaneously from unpredictable origins at any time, which can be stabilising or de-stabilising leading to chaotic or orderly behaviour, or both simultaneously (= ‘chaordic’). These behaviour patterns can be detected in the individual, at group level, and for the whole organisation, and these are constantly changing and influencing behaviour patterns at other levels, influencing relationships evolution and the various interactions, within and external to the organisation. Being a UK university, the CSO is part of the UK non-compulsory FE and HE environment, which is driven mainly by the population demographic and social trends, the academic year cycle and the number of students enrolling for courses. These are some of the common background patterns to all similar organisations in the UK, the patterns of which it must be aware, and to which the CSO must adapt.

With the above in mind, this PD facet shows that the CSO has the following six main behaviour patterns, which have been detected: ‘comprehensive monitoring and tight controls’; ‘mutual support’; ‘business-like’, in terms of cost controls, income generation and ‘virtuous circle’ business model; ‘steady progress’; adept in attuning to external environmental sensing (‘environmental attuning’); and functioning according to an underlying set of ‘values and beliefs implementation’, as articulated in its mission statement (V3). These main patterns will be explained and their derivation evidenced below, and where differences in these patterns have been detected between the ‘old’ regime and the ‘new’ regime and/or the various levels of hierarchy in the CSO (TMT, SM and below) will be highlighted.

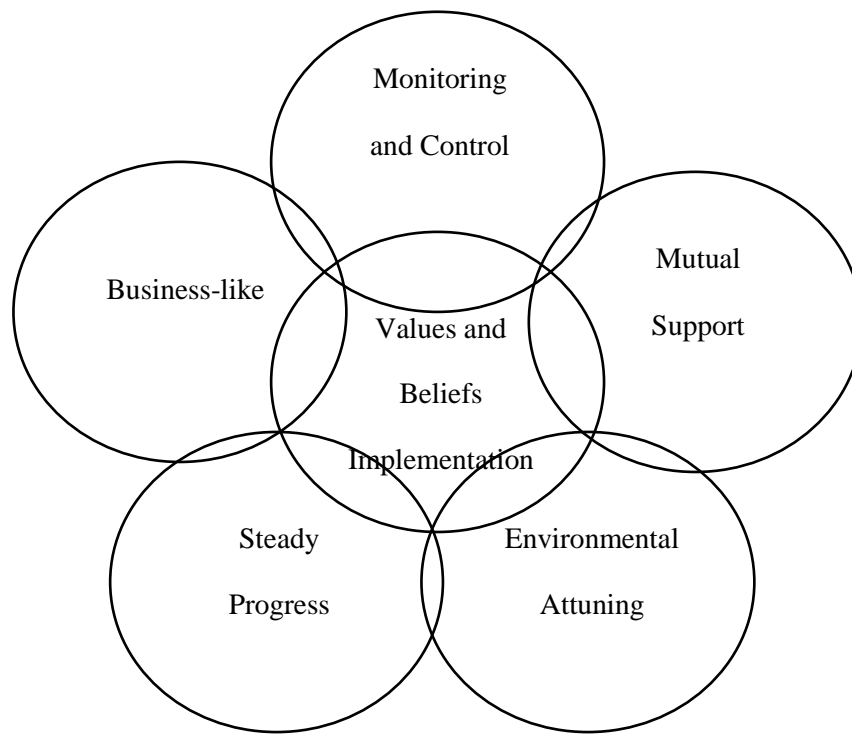


Figure 12 - The CSO's Main Patterns Perceived

#### 5.4.3.1 PD – Monitoring and Control

TT1 is very experienced in both sensing the environment and monitoring variables that influence the organisation. His perspective is with a view to overall strategy development, being aware of opportunities and threats and in particular those elements that affect funding and finance. Referring to the latter (funding and finance), because of the significance of student numbers influencing income (85% of the CSO's income, mainly from funding bodies, is directly related to student numbers), TT1 was very aware of this significant aspect of the operations of the CSO.

*“The ability to foresee potential problems and make changes (is important), because you’ve got to see what’s coming and you’ve got to be able to change quickly. For example if the (student) numbers on one course are going down and there’s demand in another course, you can’t sit around in committee meetings hour after hour and debate the academics and whether you are going to change or not, you simply do it. I think that’s (the awareness of the changing operating environment in the educational field) absolutely essential as well, because unless you know what’s going on around you then you have got no idea on how to react to the circumstances.” (TT1 quotes).*

The following explains the detail of the monitoring that is done, taking student numbers as an example and reflecting how important student numbers are to operations:

*“It is all to do with full time equivalent (student) numbers, each student has got a value, but actually that detailed stuff is not (in my remit). Oh yes, TT6 (is responsible for that). That is one thing that I would say is very well calculated. Every student that is in the college is on a huge calculation spreadsheet which works out very well the costing of every student and what they are worth. That is all worked out, probably quite well, but then of course what this means is that every student is actually costed out in terms of how much we can get revenue for, when we do our returns to the funding councils.” (SM7 quote).*

TT1’s stepping aside, now that the CSO ‘foundation stones’ are broadly in place, the vision is set, and the broad ‘positioning’ is clear, allows TT2, to consolidate the CSO’s position. TT2 has always been seen by most within the CSO as ‘the controller’, the person in the best position to see, hear and monitor everything affecting the CSO (ORG data).

*“Everything from external sources goes over TT2’s desk, very rapidly, to another member of the TMT.” (SM12 quote). Everything in this college is channelled through TT2, even down to the minutest detail.” (S1 quote).*

In addition to the above, TT2 is the architect and director of the CSO annual ‘Performance Measures and Targets’ book, which publishes selected and distilled items of information evidencing the CSO’s excellent performance mainly for the funding bodies (LSC and HEFCE) and other external stakeholders (QAA, OFSTED, etc.). The ‘Performance Measures and Targets’ book is the visible tip of an extensive array of performance monitoring processes undertaken by all functional departments.

The PD facet has exposed a distortion to the significant monitoring and control pattern mentioned above. Despite the clear and excellent performance indicators, there are limitations;

*“CSO’s MIS systems are very solid in providing solid audit trails for validation and audit purposes for the funding bodies (mainly HEFCE). This gives the CSO the confidence to argue our case aggressively for more money, if need be. The LSC (funding body for FE) is a lion and we must always defend our position, ‘up our tree; we can never sleep’.” (TT8 quote).*

These quotes are not indicative of homogenous excellent performance throughout the CSO. The monitoring and controlling patterns create an environment where much is and/or could be measured and controlled, but some things (of lesser importance to the TMT, perhaps) are left more loosely controlled.

*“There are very few controls. Most members of staff have a great deal of freedom to do almost anything they want to. Nobody cares or is interested in what we do as long as we do our jobs well enough to hit the QAA, HEFCE and other certifying bodies (requirements) we need to convince them that we are good. We (the CSO) are excellent at satisfying QAA (etc.) standards. (The CSO) is successful by any measures, financial performance, recruitment, retention and achievement of students and staff and quality criteria (for QAA and HEFCE, etc.). But we have strict rules (some) people don’t actually follow the rules and behaviour emerges (‘work-arounds’). (The CSO) ‘controls’ with many little enforceable rules, which it may choose to enforce sometimes (creating a ‘fear-factor’ bordering on bullying).” (SM15 quotes).*

*“If things may have been unsuccessful or not financially valued, you’d get it in the neck, basically. People are quite frightened of their line manager or what might happen at a higher level. Like a lot of organisations they have a culture of fear and blame. People are quite intimidated by line managers, who don’t necessarily do it on purpose, it’s just the way things work here. There’s quite a lot of awareness of having to do the right thing, whatever is in line with the college’s condition, and Corporation’s view and senior managers’ view of things.” (S1 quote).*

Enforcement of some of these “little enforceable rules” for some people on some occasions becomes known throughout the CSO very quickly, via the ‘grapevine’, sometimes with exaggeration and distortion. For some people within the CSO, the rumours that result can provide an extra dimension of control (ORG data). These ‘fear factor’ elements of the ‘control culture’ and the patterns of behaviour allowing these to develop, identified by the PD facet of the CAS lens, are those that restrict the creation of strategic initiatives within the CSO (as mentioned in section ‘5.3.4 SDP Creating Strategic Initiatives’ above).

This ‘distortion’ in the ‘Monitoring and Control’ pattern can be traced to the backgrounds of many of the TMT members and senior managers, being the ‘Hospitality’

services sector. This service sector is a main focus market niche of the CSO and provides students with career routes in Hotels, Catering and the Leisure industries. It is appropriate that many people in the CSO are specialists drawn from these sectors, as experts, to train and teach students wishing to enter these areas as careers. But, drawing people from these sectors, many of which have risen through the hierarchy of the CSO, up to the highest levels, does bring a particular way of running organisations, which could be called a 'Hospitality culture'. From ORG data gathered within the CSO, 'Hospitality Culture' means that all that is visible to outsiders (customers and other stakeholders) has to be seen as excellent (the 'front of house') and this is where significant investment is made to satisfy the perceived needs of these outsiders. The 'back of house' (or back room, or kitchens) is the flexible and responsive area to support the 'front of house', where everything is done to make efficient use of resources; reduce wastage, optimum investment, excellent asset utilisation (including people), task-of-the-moment orientation, whatever is needed, is done. 'Softer' people (staff) issues are less important. This 'Hospitality Culture' is summarised by the CSO motto 'Service before Self'. The members of the CSO TMT that have this 'Hospitality' background are TT1 and TT4 from the 'old regime' (and, with a teaching background TT2 and TT3, local government, TT5 and TT6, accountancy TT7 and I.T. TT8). The 'old' Principal, TT1, with a 'Hospitality' background, who set the 'positioning' of the CSO has also set, or allowed to develop, the CSO's 'Hospitality Culture'. (30% of the 36 respondents have a 'Hospitality' background, 36% teaching, 34% local government, administration, accountancy, IT or HR.). The 'new regime' CSO TMT has a slightly more eclectic and 'teaching' orientated background mix (teaching TT2 and TT3, 'Hospitality' TT4 [but, sidelined and soon expected to retire] and TT10, local government TT6, accountancy TT7, I.T. TT8, and H.R /Estates TT9). The 'new' Principal, TT2, the current main strategist, has an FE teaching background and a slightly more eclectic TMT, which is,



perhaps, more appropriate for the ‘consolidation’ phase of the CSO, but based on the ‘Hospitality Culture’ that still imbues the organisation.

*“People in the Hospitality industry, and with their backgrounds, affect current behaviour and the future (of the CSO).” (R1SM quote).*

*“I (SM6, Head of the School of Childcare and Education) was so surprised when I at one point I was managed by someone in (the) Catering (School of Hospitality, Food and Events Management) and it was so different, we would - if you told me to do something and I didn’t think it was a good idea, I would discuss it with you, I would come and say (so), whereas that wasn’t really an acceptable approach from a caterer. The approach of catering is, you are in a hot kitchen, that needs to be done, do it, now. Whereas I do feel that we (in the School of Childcare and Education) do discuss things and I would hope that and I have got a number of occasions where staff do come and say that they are not happy with something and come and discuss and it might be that I take it on board and then they understand why I made a decision.” (SM6 quote).*

*“I think there is really good co-operation. It’s nearly all informal again. This is a characteristic of a hospitality organisation (such as ours = the CSO).” (TT3 quote).*

*“TT1’s mission is tight controls, stick to the knitting, risk averse and high quality where it matters, where it’s visible. It’s a ‘hospitality ethos.’” (L5 quote).*

#### 5.4.3.2 PD – Mutual Support

Related to the above ‘monitoring and control’ pattern of behaviour, there is a strong feeling of mutual support from people within the CSO. People help each other and often volunteer help spontaneously, particularly to their immediate colleagues and fellow team members to get particular jobs done, or resolve particular issues. There is, however, again a difference perceived between the ‘mutual support’ among members of the TMT, and between others lower in the hierarchy.

Between members of the TMT, it seems that the mutual support is related to the consensus and collective responsibility principles mentioned earlier.

*“We are always in unanimous agreement in the (‘old’) SMT (= ‘new’ EMT) and with the Corporation. There is regular and detailed contact. It’s mutually supportive.” (TT3 quote).*

*“The Board of Governors meetings are always very supportive, sanctioning decisions, agreeing positions, and asking some clarifying questions.” (G3 quote).*

*“He (TT4) is really supportive you see, we have got new initiatives going on, even off-site in the evening, he will always come along and support, and TT3. And, those two people couldn't have been more supportive to us in our school (Childcare and Education). That's what I mean. The ('old') SMT (now EMT), they don't just leave me to get on with it, they support it as well.” (SM6 quote).*

Between colleagues lower in the hierarchy of the CSO, there is good mutual support on a daily basis, as would be expected in any organisation. However, sometimes this mutual support is a defence mechanism to counter the 'control culture' and to cope with the daily rigours of the 'monitoring and control' issues arising from day-to-day operations. If all procedures are fully complied with ('according to the book') the practical workload would not be possible to complete by the deadlines imposed. ORG evidence confirms these observations perceived from the researcher working within the CSO.

#### 5.4.3.3 PD – Business-Like

It is very clear that the CSO is run as a business. As can be seen from the performance measures mentioned in section '5.3.2 SDP – Performance Measurement', and referring to the 'virtuous circle' business model mentioned in section '5.4.5.1.1 Funding – Investments/Students/Income/Surpluses/Investment – 'Virtuous Circle''. A very important output of the CSO is the generation of a surplus on operations (= profit). Since incorporation (1993) the pattern of behaving in a business-like manner has been developed and firmly entrenched in the CSO's way of operating. This is clearly stated by the Principal, TT1, from the 'old regime'.

*“Education is without any doubt now a business, it's a case of you have to make sure that there is more money coming in than there is money going out if you don't get that right you won't be in business you won't have any education provision to offer. I wouldn't want to give the impression of hard-nosed capitalists, but on the other hand whatever we do, we have to do in a business-like manner. If the community want something (education) they've got to pay for it. We are not a charity. We are a charitable trust but we don't act in a charitable way. We are not here to give our money away, if the community want a particular service from us, someone has got to pay, not necessarily the*

*community but it's got to be funded by one of the funding councils or some other organisation or the community itself. We are not here to give our services for free. Yes, it's business orientated and that's not because I particularly want it that way or feel that it should be that way, functionally it's my job to make things happen after other people (government officials) have decided what they want and the view of Government is that it should be run in that manner and the reason why it should be run in that manner is because of a finite amount of resources. It's tax payers' money that we're spending."* (TT1 quotes).

No change in this thinking has been detected under the 'new regime' headed by TT2, nor is it expected. But is it not just the tone set by the head of the CSO, the business-like manner of doing things is sensed everywhere throughout the CSO (ORG data). This business-like attitude is usually referred to in a positive tone, but some negative aspects have been perceived.

*"TT4 is excellent at selling the CSO abroad to overseas students. TT2 is expert at obtaining funds from the LSC (for FE), and he won't give that up (now that he is Principal). Now that the CSO has TDAP, the college will carry on as normal. The move was a marketing exercise to create a brand, with 'university' in the name, to ensure we attract (overseas) students, and at the same time do not upset the (LUKU) arrangement."* (SM15 quotes).

*"The SMT (and EMT) and management hierarchy listens to grass roots, students and industry – all very efficiently and thoroughly for a slick response. The TDAP (auditors and inspectors) had difficulty in understanding the CSO structure and slick processes but accepted them as a new hybrid model that works very well. FE money was getting tight with too much red tape and they (the LSC) seemed immature in their approach. The move (to become an HEI in 2002) meant that we only had to put in returns to the HEFCE for HE funding, and they were supposed to liaise with the LSC to secure funding for FE, for us – this didn't work so well and CSO still has to put in some return or information (to the LSC) to ensure FE funding. HEFCE is much more mature, less red-tape and has (had) much more pots and money on which to draw. So, the (CSO)/LSC relationship is turbulent."* (TT8 quotes).

*"Competition is growing from the schools that want to hang on to students in a wider educational context. The CSO is in a very good position. It is very strong with good performance measures across a broad spectrum. Its capabilities are well suited to its market niche – Hospitality and service sectors. CSO does not want to borrow. We don't want any debt and we have good reserves of cash and land. Because of this (the CSO) won't (perversely) attract (additional) government funding."* (TT9 quote).

*"(TT1) is continually searching for a secure position for us (the CSO). In (the CSO) there are 'silos' (where people are different) Catering, Hospitality, Caring. (But,) you've got to have some structure in place to cope (with continual change*

*= responsive, flexible and adaptive). Achieving student numbers is a key driver. There has been a long term trend in the demise of the manufacturing sector (in the UK and West Midlands in particular) and a rise in the service sector, Hospitality, which has been very fortunate for us (the CSO). There has also been a trend in the rise of status of catering (celebrity chef phenomenon, an increase in awareness obesity, more information on healthy diets, and a money rich - time poor development in society).” (R1SM quote).*

*“The (CSO) generates a surplus. We are fairly cash rich, have no debt and are geared for cash and we have an immaculate credit rating. We are cash/finance driven.” (TT6 quote).*

Here is some evidence of the negative aspects perceived of being business-like in the UK FE and HE sectors.

*“It’s one of its (the CSO) strengths, great financial business (sense). But, at what cost, in terms of creativity and innovation and just nurturing and bringing new developments to the fore. There are quite a lot of things (based on the) culture. (S1 quotes).*

*“Generally (the CSO) is run very well, but it only has (7,500) students (2007/2008), so it should be possible to run it ‘to the pip’. (Or, does it look as though we run the organisation very well, but we don’t really, and now we have to catch ourselves up. We could be confident rather than defensive.)” (SM7 quote).*

*“(The CSO) is a property company that just happens to teach FE and HE.” (ORG data, L5).*

#### 5.4.3.4 PD – Steady Progress

A clear pattern is discernable about how the CSO changes, and this observation has been facilitated by the very slow change in 17 years (since incorporation in 1993), in the important core aspects of how the CSO is run, such as positioning (service sector focus), business model (‘virtuous circle’), business-like (attitude to funding and finance). From interview and ORG data, only minor changes have been sensed, and only minor changes are expected in the future direction and strategy of the CSO. In the period (1993 – 2010) there has been a steady progress in student numbers, which included an intended shift from an FE centre of gravity towards HE centre of gravity of operations; steady growth of income, reflecting the student numbers and FE/HE shift; controlled growth of costs

(staff numbers and operating costs), constant surpluses (averaging 10% of income), and zero debt, despite considerable change in the external environment (see section ‘5.1 The Organisational Environment’). For the non-core and operational aspects, change has been flexible and responsive, when and where needed. It seems clear that a major shift in direction or position (vision/mission and overall corporate strategy) of the CSO is unlikely, which means that the CSO’s future is broadly predictable. This stability is a great advantage in the sectors in which the CSO operates, compared to its competitors and such stability would be a significant advantage to any organisation in most business sectors. It is a significant achievement to maintain an organisation so stable for so long in an environment that has and is continuing to undergo an increasing amount of change.

*“Generally business-as-usual, with contiguous changes at the edges, but big changes in the external environment, employer engagement, with government emphasis and encouragement with funding, and funding streams changes, no more per capita HE funding.” (TT3 quote).*

*“(The CSO) is very stable. There are many established and gently evolving systems, processes and ways of operating.” (TT1 quote).*

*“It is essential to stick to what you are good at. Don’t try to diversify too far into territory that is not yours, or that may be temporary ‘sexy’ but looks risky. Never allow anyone to forget that we are only in a job because the students want to come here. Get the basics right. (Funding Councils returns, audit cycles and statutory obligations).” (TT1’s paper “[The CSO] – What are the key Issues to Success ?”).*

*“Foresee potential problems and make changes. Both of these are about strategy, about knowing whether your strategy is likely to be successful, they are critically important to developing policy in (the CSO).” (TT3 quote).*

*“Only gradual changes will be made over the coming years, because (the CSO) is performing well.” (TT2 quote).*

The 17 years ‘test-of-time’ (1993-2010) shows that the CSO is adept in keeping to its strong defensible position and maintaining its steady progress, by making flexible and responsive, small changes to operations, despite significant shifts in the environment.

#### 5.4.3.5 PD – Environmental Attuning

It is clear that the CSO, via its TMT members and most senior managers, is also very adept in sensing and understanding the trends and shifts in the various environmental areas in which the CSO operates, and making the appropriate adjustments to the CSO operations, in a very responsive manner. The TMT members and the senior managers are very practised in bringing information about imminent changes, or views on possible environmental changes, to the appropriate TMT person or forum. The main areas in which this takes place are the FE and HE sectors, international students sector, and the government departments and audit agencies (for example, QAA and OFSTED) affecting these areas.

*“It is totally different than it used to be. Some institutions have embraced the fact that educational institutions are becoming more businesslike, some more than others, and the ones that have embraced it are generally the successful ones. Competitors in the other overseas market, Australia for example being a big competitor now, Canada, America, a lot of students from the Far East wanting to go to these countries. Currency changes as well, a strong pound doesn't help in that regard and a weak dollar is a real hindrance for us because it's much cheaper for (overseas) students to go abroad (to the USA). The student numbers went down nationally, but our student numbers went up, so we did very well against the (UK) trend, exceptionally well, and we hope to be able to continue that because of the particular fields that we are in. Tourism is a very, very big market for China and that's mainly where our expertise and our courses lie, and we would hope to increase our exposure there, but that's not to say that (our competitors in) Australia, Canada and the United States are (not) going to be doing the same. So it's a tough market but we're certainly very much in the overseas market and we don't see that changing at all. Changing (business) environment. You are right, it's changing very, very rapidly and the way that the team understand that is to keep abreast of developments that are going on, attending courses that are run by the various organisations, the Department for Education and so on, and then trickling that down to the rest of the staff in the organisation.” (TT1 quotes).*

*“Changes in government policy, often prior to it happening. I worry about the Chinese market. It is probably going to be strong for a number of years, then I think it will tail off very quickly. China will not always be the cash-cow. I would say that the accession states to the EU (Eastern European countries) are a clear*

*target area and I also believe that India is a clear target area; they value education.” (TT3 quotes).*

*“I think, like everything else, the Chinese, like they’ve done on products and like they’ve done with cars etc. they form alliances with the western countries, and then effectively (go it alone.) So, I think in the future we will see that the Chinese Universities and Chinese people would be able to study in China, in English. I think what most Chinese want to be is bi-lingual (in English) and have good experience (studying in an English speaking country). Developments like Disneyland, the Beijing Olympics (2008) and the Universal Film Studios that are opening in Shanghai (mean that) people can see a future there (in China). Hotels are opening every day in China, so I think at the moment people see it as a way of getting decent employment, but I don’t think this will last forever.” (TT4 quotes)*

In addition to this attuning to the educational sectors, explained above, CSO TMT members and many senior managers are involved in the market environment niche areas in which the CSO operates. Attuning to these market niches feeds useful information into the organisation, from such areas as Hospitality, Catering, Tourism, Leisure, Sport, Childcare and Education, and Health & Beauty. Many of the inputs from these market niches are from senior managers and people lower down the hierarchy in the CSO.

*“Adapting to change is the most important thing, in this institution because we can have a big downturn very quickly in (student) applications. We have to be flexible and adaptable to change otherwise we wouldn’t survive. You’ve got to be aware, like Adventure Tourism, we were the first institution to offer it (an Adventure Tourism course). We had a really good intake of students for about 3 years then applications started going down so you’ve got to look at something new to come in. The feedback we get one year we can actually try and address it the following year.” (TT4 quotes).*

*“It (the CSO) is very good at developing new courses, particularly in the area of HE, if it sees a niche in the market, in terms of financial gain.” (S1 quote).*

*“Government is trying to align vocational and academic education. The industry wants skills and competencies, so the shift is to get these delivered via or with industry. The NVQs made it more difficult to combine the skills (FE) and academic (HE) learning, because of the lack of knowledge development and critical thinking, and that seems now to be in the process of correction.*

*Government wants to get more employer engagement and to broaden the scope of HE. One might gain a college (-type) qualification whilst working for Tesco's, for example. It's very flexible from a learner's point of view. But, it is very difficult from the suppliers' perspective, because of traditional non-cooperation and non-partnerships arrangements and the past differences between FE and HE. The rules are changing. There is a risk assessment on any decision but in terms of Toni and Guy (to do with a CSO/employer joint venture in the Hair & Beauty sector), for example, how far do we go with it? Toni and Guy might have a small involvement, they might want a significant involvement. If they have a small involvement, fine, if they have a big involvement, how much do we want them to be involved? How far are we going to allow it to go? We want to know the implications, what is the risk.” (SM1 quotes).*

*“The government has now realised what has been proved all over the world that if you put money into higher education it's quite useful to society but actually you are (society is) better off putting money into early years (education), rather than putting money into higher education. The knock-on effects in society are quite dramatic. Because of that, there has been this huge amount of money being put into (UK) early years (education) and a very significant piece of research proves that the factor that what you need in early years is somebody (the teachers, or leaders within the operational environment) with a degree. It's to do with the in-depth understanding of child development and working with families, that is so crucial; and the analytical way of thinking about children (that comes from) somebody who is a graduate. There is mega bucks going in to this. The environmental trend has been building up over recent years (7-10 years – 1998/2001- 2008).” (SM6 quotes).*

*“There has been a long term trend in the demise of the manufacturing sector (in the UK and West Midlands in particular) and a rise in the service sector, (like the) Hospitality (sector), which has been very fortunate for us (the CSO). There has also been a trend in the rise of status of catering (celebrity chef phenomenon, an increase in awareness obesity, information on healthy diets, and a money rich/time poor development in society).” (R1SM quote).*

*“The (Hospitality) industry wants people ready to do a job, but the skills they need - you know, if you're going to send somebody out to work out in a top class restaurant, or for a hotel or in a marketing department, you know there's different skills in those jobs, so we're having to respond to what the industry wants all the time. I'm not sure the mix has changed so much. Well it's changed in a sense that, perhaps, (the Hospitality) industry expects students to have an even wider range of skills now, you know IT, etc. But certainly in the hospitality side they do want people who've got an 'operations focus'.” (SM3 quotes).*



The above interview quotes evidence the awareness of TMT members and most senior managers of both the educational environmental and market niche characteristics and their respective trends and issues. This environmental attuning pattern also shows how that awareness is continuously being utilised to make adjustments and improvements to the CSO's operations (focus, courses and education provision methods). It seems clear that this attuning happens relatively rapidly and responsively, compared to other competitive institutions.

#### 5.4.3.6 PD – Values and Beliefs Implementation

All of the patterns of behaviour, mentioned above (5.4.3.1 – 5.4.3.5) 'monitoring and control', 'business-like' manner of operations, 'mutual support', 'steady progress', and 'environmental attuning', are generally happening within a context of the values and beliefs of the CSO, as summarised in its mission statements (see 5.3.1 SDP Direction Setting, above). As a reminder, the current mission statement (version 3) is:

*“To promote and provide the opportunity for participation in the learning process by those with the ambition and commitment to succeed and to establish a learning community that meets the diverse needs of our students, the economy and society at large.”*

This set of values and beliefs seem to be clear extensions of the values and beliefs of the TMT members, collectively, and based on their individual backgrounds. It reflects very much what several members of the TMT have themselves achieved. It also sets the tone and basis for the culture of the organisation. An understanding of this aspect of an organisation allows broad predictions of the CSO's direction, way of operating and limits of behaviour. The following evidence explains how the values and beliefs pattern of behaviour of the CSO has been perceived as being implemented.

*“The students must be given every opportunity to succeed. We regard ourselves as the ‘University of the Second Chance’ for many of them. There is considerable disadvantage in much of our immediate catchment area. All the more reason for our students to be given the chance to experience the best facilities and teaching expertise that money can buy. Over the years this has paid dividends because*

*students show that they are proud to belong here. Students must be given every opportunity to settle into the culture of the college. This is facilitated through extensive support networks. Our facilities mirror the best that is available in industry. This helps our teaching to become vocationally relevant.”* (extracts from TT1’s paper ‘CSO- What are the Key Issues to Success ?’09/07/2008).

This distillation of success factors could be seen to reflect the personal origins and backgrounds of at least three members of the ‘old’ regime TMT (TT1, TT2 and TT4; see below, section 5.4.5.4 People Factors).

*“There is a genuine balance at (the CSO) between being a (hard) profit-driven operation, versus (soft) ensuring those with potential benefit from our courses whatever their background. There is also an overriding desire to ensure that the students have the chance to benefit from the best facilities and staff that we can get.”* (TT5 quotes).

*“We are also teaching quality driven, this encourages students to come, word spreads and our reputation grows. We have always declared ourselves to be a teaching institution.”* (TT6 quotes).

*“I would say (the cautious way of doing things) is very significant There is a strong culture (that includes this). There is a strong sense of belonging in the organisation, as a culture; there is a sense of belonging and ownership.”* (TT10 quotes).

*“I particularly like our mission statement (V3), I think it is particularly relevant but then, of course, besides having the right staff in the right post and helping the staff, if they are achieving their potential you are also helping the staff to achieve the students’ potential. If we are all in an educational environment, where we are supporting students, we are also supporting each other. I think we are very good at helping people to achieve what their previous experience of education made them think that they couldn’t achieve.”* (SM6 quotes).

These ‘softer’ values and beliefs have been articulated as the ‘Students’ section of the latest CSO ‘Corporate Plan 2007 – 2012’ (explained in section ‘5.3.1 SDP Direction Setting’, above; - a very brief 12 page document). The following (Table 8) extract from this plan reflects much of what has been found from the above in this section on values and beliefs.

**Strategic Objectives:**

1. Ensure that those with the potential to benefit from our programmes have the opportunity to do so, whatever their background.
2. Play an active role in the initiatives such as Aim Higher and Lifelong Learning networks to raise aspirations and to offer progression into and through HE.
3. Continue to recruit full-cost, international students.
4. At least maintain retention and achievement rates at 2007 levels.
5. Equip students with the skills that will secure appropriate and relevant employment.

**Indicators of Success:**

1. Our student profile continues to reflect the diversity of the local, regional and national population.
2. International student recruitment maintained at 2007 levels.
3. Retention and achievement rates remain amongst the best in the sector.
4. Better than benchmark for student progression and employment.
5. Student satisfaction rates remain high.

Table 8 – Extract from the CSO Corporate Plan (2007 – 2012)

It seems clear that there is an underlying behaviour pattern of wanting to nurture student progress and success and to give students the chance to achieve their educational and academic ambitions, but within a focussed, controlled and business-like context.

#### 5.4.3.7 Patterns Development - Summary

Summarising this PD section, the main patterns of behaviour of ‘monitoring and control’, ‘mutual support’, ‘business-like’, ‘steady progress’, ‘environmental attuning’ and ‘values and beliefs’ can be discerned. These patterns are not discrete or separate entities, but there are boundary overlaps and interconnections. There are also many other lesser patterns and probably some of which have yet to be perceived, but the above main patterns gives a reasonable basis of understanding for the formal and informal processes that are taking place within the CSO.

There do seem to be differences in the perceptions of how the CSO operates between the members of the TMT and the non-TMT staff, lower in the hierarchy; and some of these

patterns show a significant difference, based on the evidence gathered during the project. The 'monitoring and control' pattern seems to be influenced by the 'Hospitality culture' mentioned; and this has both positive and negative aspects. The positive aspects are where the 'Hospitality culture' reinforces the control processes and allow the organisation to be run as consistently and efficiently as it has been, for such a long time. A negative aspect is when creativity and innovation are stifled lower in the hierarchy frustrating the inputs of otherwise committed staff members. Another negative aspect is the implied control of the 'number of little enforceable rules', which some (non-TMT) staff members feel could be or have been enforced, to the extent of the words of 'fear' and 'bullying' have been used by some interviewees.

The 'mutual support' pattern is perceived as a strong positive aspect by TMT members, throughout the CSO, that allows the 'can do' spirit to help the organisation be very rapidly flexible and responsive in making changes to operations. Mutual support has positive and some negative aspect for those non-TMT staff members. The positive aspects are similar to those of the TMT members, mutually supporting the flexibility and responsiveness. The negative aspects are to do with being mutually supportive to counter mainly the implied control of the 'number of little enforceable rules' that exist and that are perceived by the non-TMT staff members as hampering their work processes. The 'mutual support' is partially a coping device for some people for doing what has to be done despite the perceived limitations of the related 'monitoring and control' pattern.

The 'business-like' pattern is generally perceived as being a positive aspect of the CSO. It ensures the finances are solid and generally reassures the TMT and non-TMT staff that they will continue to have job security, despite the economic uncertainties. Some feel that the 'business-like' aspects go too far and to the detriment of the 'values and beliefs' pattern. But, the balance and compromise is generally accepted.

The 'steady progress' pattern is also generally perceived as being a positive aspect of the CSO. However, it frustrates some, who would like to make more and greater progress in their particular functional areas.

Sensing the environment and adapting the organisation and its processes to changes, as defined as the 'environmental attuning' organisational behavioural pattern, is becoming more difficult as the variables increase in number, interconnections become more complex and the interactions become more dynamic. The CSO has developed this pattern very well since the beginning of TTI's tenure and the result has been the related 'steady progress' pattern mentioned and relative stability, despite an environment becoming increasingly more complex. This 'environmental attuning' pattern is likely to change, as the CSO adapts its sensing processes to the increasingly complex developments of the changes in the operating environment.

In common with most people involved in the educational sector (FE and HE), the 'values and beliefs' pattern is generally seen as being positive and desirable. However, some non-TMT staff members have difficulty in balancing the compromise the 'values and beliefs' pattern with the 'business-like' pattern, but this is not general. Generally most people, at all levels, appear to make the right compromise at the appropriate time in this balance.

Next follows an explanation of the Self-Organisation characteristic of the CSO as found via this facet of the CAS lens.

#### 5.4.4 CAS Facet – Self-Organisation (SO)

As a reminder, this SO facet is about spontaneous self-organisation, which can occur at any time between people and in small and large groups, in organisations. This characteristic is unpredictable in how, where and when it occurs and it underlies, influences and is influenced by the other characteristics of the CAS.

The ‘monitoring and control’ behaviour pattern, mentioned above (5.4.3.1) is relatively powerful within the CSO and this reduces the ability that most people and groups have to organise themselves. The TMT seems to need to feel that they control most aspects, particularly the important aspects, of the CSO, and cannot risk members of staff initiating projects and processes without their sanction. This does not mean that self-organisation does not occur. It does, and at all levels. What it does mean is that self-organisation is not generally seen as a positive characteristic, of which use could be made to the benefit of the CSO, but is perceived more as a negative complication that would make control more difficult. This means that the management words ‘delegation’ and ‘empowerment’, if used, are perceived by most as being of limited value, as long as the monitoring and control pattern is exercised with the current intensity, particularly for those lower in the organisation.

Because of the above control/self-organisation balance mentioned above, there has been somewhat less evidence of this characteristic gathered. However, self-organisation has been detected both at TMT level and non-TMT level. It has also been detected as part of delegation, in the more formal operational processes, but more commonly in the informal interactions of the people in the CSO. The following evidence explains how the above aspects of self-organisation were detected within the CSO.

#### 5.4.4.1 SO – Within the Top Management Team

It seems clear that TT1, the Principal for the ‘old regime’ did appreciate self-organisation and wanted to encourage its use at TMT level.

*“I employ people to run the operational side of things, who are much better at running the operational side of things than I am. The key is getting the right person in the right job and if they need training, which they’ll probably need to keep abreast of new developments, make sure they are adequately trained, make sure you spend a lot of money on that and let them get on with their job, that’s how you manage. The key to the success; the staff that work for you and motivating them and giving them the freedom to come up with these ideas that have got us into that (successful) position and indeed the freedom to fail, not getting on their backs for making one or two mistakes, as long as they don’t make too many, and especially don’t make many big ones. But, it’s a condition of trust*

*among the staff, and indeed a vision. Well what you're asking me is if you've got a very bad leader and good subordinates, are you better off without the bad leader? Definitely (better off without a bad leader)."* (TT1 quotes).

Some TMT members also appreciate self-organisation in their functional areas;

*"Teamwork is vital. I empower whenever possible. I give people responsibility wherever possible. Sharing responsibility between (two) people. The ability to manage staff, encourage and motivate subordinates."* (TT3 quote).

*"I think we have got a really good group of staff, who think about what they are doing. I think if you've got a good team of staff and they know you communicate with them well, they know your vision, they know that you will work together so you don't need to be on their back all the time. If you delegate you have to trust them. Yes, on certain things you've got to empower your subordinates to do a job, you can't do everything yourself, if you did everything yourself you would burn yourself out. You surround yourself with the right people. Our Principal (TT1), for example has surrounded himself with people that have got different skills, some people are good at finance etc. A lot of the improvements that have been made haven't come from the top down, they've come from the bottom up, more ideas come from the bottom up. A lot of staff development initiatives have come from the bottom up."* (TT4 quotes)

*"Each of the directors looks at, and produces a strategy for development and they are based on that particular area (HR, estates, etc.)" – in line with overall strategy. Again, probably because of the size (of the CSO = small), there is an ease in bringing that (informal communication) together in terms of support so I think the 'rallying around' there is, if something happens and something needs to be dealt with quickly there is support available from lots of different quarters and that is not just for me I think that is true in all sorts of different areas. On the one hand I think the organisation is very supportive, from my point of view I am allowed, awarded a lot of independence that in terms of my own sort of strategic planning in terms of staffing and course development that isn't dictated to me, I am bringing that to the table as it were, and putting it to the overall (effort), so I am allowed to interpret the strategic planning in a way that I should be interpreting it and bringing it to the table. A suggestion came about that it would be a good idea to link with an organisation, a large organisation. There aren't many in hairdressing, but there are a number, (like) Toni and Guy. A couple of them were identified and that idea was shared. Rather than developing it further I shared it with TT3 and he had a contact through something else with Toni and Guy and we sort of pursued that contact, and that is developing into potentially a foundation degree with the Toni and Guy organisation. It will be a national sort of development. Now that is something that it is using other people to see the opportunities, to get the organisation involved, rather than me trying to deal with*

*it in my own way and then saying right we are doing this, I said very early on in the process, get other people involved at the highest possible level and to make sure that it moves quickly and that the resources are put in place to allow us to do it.” (TT10 quotes).*

It is perhaps significant to note that no evidence on the aspect of self-organisation was detected in the interviews with TT2, the current new Principal of the CSO. In connection with this, it may be also significant to note that much of the evidence from the TMT on self-organisation was gathered from TT1 and TT4. TT1 is now in a semi-retirement, consultancy role, and TT4 has been ‘sidelined’ and is expected to retire soon. This may mean that, because of the ‘new regime’, with TT2 as the Principal, the control/self-organisation balance mentioned above is undergoing a shift more towards the control end of this spectrum, than towards self-organisation end.

#### 5.4.4.2 SO – Within Staff from Non-Top Management Team Levels

There has been very little data gathered from this area about self-organisation from the interviews. What has been gathered is about the limitations to self-organisation, the negative control aspects, rather than positive ‘delegation’, ‘empowerment’ and self-organisational aspects.

*“I’ll give you a good example. I negotiated with a basketball club. I’m a player I hasten to add. This basketball club is involved in an annual, friendly, international tournament whereby we go over to Belgium or France and play and they come over here. We do it on a rolling basis. So this year (2008) it was our turn to host the tournament. This is a social thing, nothing to do with College. In fact it’s (the basketball club is part of) a (UK) teachers league that runs in (the city). Anyway, it was our turn to host, so we thought where can we hold these tournaments. We’d had problems finding where to hold it because the home place is just not appropriate to bring in international people in and whatever. So I thought I tell you what, I’ll ask the (CSO). We’ve got the multi-sports hall. I then see a sign up on the advertising television ‘free hire to staff and students’ (in the hall) so I thought I’ll go and ask them. I thought I’d start with (L21) - he’s the co-ordinator for the area. So after quite a while I got a meeting with (L21) and (L22) - we met. They said ‘Oh you know, this sounds OK, but we’ll have to get permission first from (TT2) before I can say yes’. Why is that? “Exactly my exact question. We’ve got (L22, who works for L21) who’s the sports hall manager and we’re got (L21) who’s (manager of the) ‘sports area’, and then*



*(SM8, L21's manager), of course has an interest in it, because he's part of Student Services. So I said 'well OK then'; this went on for a few more weeks; I wasn't getting any answer. Meanwhile the club's saying to me 'have we got it or not because if not we'll have to start looking for somewhere else'. So I said 'well in theory we've got it but I've got to get it from the horse's mouth basically before we can go forward on this'. So messages were going backwards and forwards but basically what it boiled down to was unless (TT2) says 'yes you can have it' it wasn't going to go anywhere. Isn't that interesting?" It's very interesting! "So obviously I went to (TT2) and said 'look can I have it; this is what I want it for' - told him the background etc. and he said 'I don't see why not - you know, make sure you liaise with (L22) and (L21)' - which is what I would have done (was doing) anyway. He was very helpful you know 'Go and see (SU1), go and see the Students' Union - they might be able to sort out the refreshments for you ..' you know he was very helpful in that respect so I'm grateful to him. I got him on a good day actually but I think the only reason I did was because I'd been through the Framework Agreement (Trade Union/CSO) negotiations with him and he got to know me and I got to know him and there's a degree of trust, if you like, or some kind of ....you know feeling 'well I know this woman - she's not going to do anything and rip the college off or bring some kind of problems with it or whatever'. I mean one thing he did say was 'you being the college liaison person - we know you'." (S1 quotes).*

*"There seem to be undefined links/lines of communication for raising strategic issues. It's all run from the centre (the Principal, TT1 and TMT). Everything from external sources goes over TT2's desk, very rapidly, to another member of the TMT, usually TT3, but rarely TT4 (who is considered mainly operational)." (SM12 quotes).*

Where some functional aspects of the CSO are not considered important by the TMT, there seems to be a vacuum left in the direction and strategy of that area. The vacuum could be perceived as the TMT allowing that area to self-organise and formulate its own direction and strategy in an effort to prompt an emergent development of strategy. One such area of the CSO is to do with research. There is a CSO Research Department, but there appears to be no formal research strategy.

*"Research is not at all high on the agenda. We just don't have the skills and capabilities for academic or commercial research; and even if we did, it isn't a high revenue earner." (SM12 quote).*

From ORG data: *"(The CSO) is not interested in research for the HEFCE/RAE funding allocation, but it is interested in the Knowledge Transfer possibilities*

*(funding), and the related positive publicity that could result.” (L10 and L11R mentions).*

This reflects that there is no CSO research strategy, except the possible strategy position that the CSO does not intend to seek funds from (HEFCE) research funding budgets, because the CSO is a teaching university. Referring to this, L10 said that there is research funding available via HEFCE (the Higher Education Innovation Fund – HEIF), for which all HE colleges can apply for if they can justify its use. On this basis the CSO applied for and was awarded £750,000 over three years (2009-2011) for ‘knowledge transfer’ projects. But:

*“the CSO has no research strategy, nor any direction and doesn’t know what to do with it (the money). Also, there’s not a clear idea who is leading it within the CSO (TT3, TT6 or SM14).” (L10, ORG data).*

There were some positive mentions related to self-organisation.

*“Another strength of the college is that it is totally selfless, the senior managers had the ‘nous’ to realise that I do know what I am talking about and even though they don’t necessarily understand it, (and let me get on with things). It does make for a very successful school (Childcare and Education) and we have been very proactive in getting new students through and producing good courses that are well respected and even though they (the TMT) do not necessarily understand it all, they have actually had the intelligence, the ‘nous’ to realise that as a school we can do some very interesting things.” (SM6 quotes).*

*“There’s a lot of informal discussions in groups – from the bottom up, to find out what is needed and what is realistic.” (R1SM quote).*

In addition to the above, it has been observed that there is a considerable amount of self-organisation in the sense of coping with the ‘monitoring and control’ behaviour pattern of the CSO. There are many ‘work-arounds’ and short cuts used by many people to carry on their day today activities, to allow functions to run smoothly despite the constraints of processes and procedures laid down in the thorough documentation of how these are supposed to be done. (ORG data)

#### 5.4.4.3 Self-Organisation - Summary

Some of these quotes suggest there is more self-organisation occurring at TMT level and perhaps also at senior management level, than is allowed at lower levels in the hierarchy. This may be caused by the TMT and/or senior managers not wanting to allow self-organisation at lower levels, or it may mean that senior managers do not feel empowered or trusted to allow lower level self-organisation. These aspects are not clear from the evidence available. It is clear that considerable self-organisation does occur at all levels within the CSO. This is not uncommon, and this has been observed in other organisations, in which the researcher has worked. What is also clear is that self-organisation within the CSO is not embraced as strongly as ‘monitoring and control’, and this balance generates some frustration among some members of staff, particularly at non-TMT levels.

The following section examines the evidence found concerning the CAS facet of people factors, which forms the basis of human interaction in organisations in the context of this research.

#### 5.4.5 CAS facet – People Factors (PF)

First a reminder of this PF CAS lens facet. It is about people, groups and the CAS having histories and development backgrounds, where their inter-relationships co-evolve, and because people learn they can and do explore possible actions and during this process behaviour patterns emerge, which are so complex and dynamic ‘whole system’ knowledge is impossible for any one person.

People develop strategies; because of this, if attention is paid to the people in an organisation, and for this research project, particularly those involved in strategy development, then important aspects of the CSO and the strategy development process can be understood. Below, in Table 9, is a summary and overview of the key players in the CSO involved in the SDP, and of their origins and backgrounds.

	TMT Members	Origins	Background
‘Old’ TMT	<b>TT1</b>	Humble urban Scottish Presbyterian	Chef Dorchester Hotel, Hospitality, FE teaching
	TT2	Humble urban, northern UK city, graduate	FE teaching
	TT3	Graduate, metallurgist and manufacturing	Primary and FE teaching
	TT4	Humble Welsh valley	Hospitality, teacher training, academic
	TT5	Birmingham, grammar school	Local government, LEA
	TT6	Birmingham, grammar school	Local government, LEA
	TT7	Chartered Accountant, Finance	Accountancy
	TT8	Humble origins, maths graduate	I.T & Systems, Local government, LEA
‘New’ TMT	<b>TT2</b>	Humble, urban northern UK city, graduate	FE teaching
	TT3	Graduate, metallurgist and manufacturing	Primary and FE teaching
	TT4	Humble, Welsh valley	Hospitality, teacher training, academic
	TT6	Birmingham, grammar school	Local government, LEA
	TT7	Chartered Accountant, Finance	Accountancy
	TT8	Humble origins, maths graduate	I.T & Systems, Local government, LEA
	TT9	Northern Ireland	HR at FE/HE college, Birmingham Airport
	TT10	Midlands	Hospitality overseas, FE teaching

Table 9 - Origins & Backgrounds Overview of the CSO TMT Members

The two Principals, from the ‘old regime’ and from the current, ‘new regime’ (TT1 and TT2), are the most important players, as the main strategists of the CSO. What follows in this section is an explanation of what has been found concerning these two main strategists of the CSO and the groups with which they are involved in developing the CSO’s overall strategy. Both Principals, from the ‘old’ and ‘new’ regimes, TT1 and TT2, all the TMT, and the CSO staff generally, recognise, acknowledge and accept that the Principal is the main strategist and director of the organisation who makes the strategic decisions of the organisation. However, TT1 and TT2 are very different types

of people and these differences are apparent and significant in forming the direction and strategies of the CSO. It is important to note the important ‘foundation stones’ of the main strategist, the Principal of the CSO (TT1), during the ‘positioning’ period of the ‘old regime’, because these form the vision, sets the direction, and forms the basis of the overall strategy for the CSO into the current ‘consolidation period’ of the ‘new regime’, under TT2.

#### 5.4.5.1 PF – TT1, Principal of the CSO (1983-2008, 25 years)

*“TT1’s upbringing was from humble Scottish Presbyterian origins in Glasgow” (TT5 quote), from where his high principles come - caution, prudence, support of others, “get the basics right”, and “never a borrower or a lender be” (TT1 quotes).*

His training and first work experience was in catering and hospitality

*“TT1 was a head chef at the Dorchester Hotel in London” (TT5 quote), requiring flexible, responsive and very rapid reactions to changes. Many of TT1’s values he explains via football and other (sporting) metaphors. “Make sure you pass the ball to the players in the red shirts (your team members)” and “You are only as good as your last game.” (TT1 quotes).*

He is a “visionary leader” (TT9 quote) and will take his time to “walk around the problem 20 times” (TT5 quote) and then make the right decision. TT1 said that he was very paternalistic towards all the staff of the CSO, “a sort of benevolent Stalinism”, with tight control for the “important things” (finance, funding and budgets) and looser control for other things (strategy, curriculum, programmes, target groups, etc.). The latter he preferred to delegate to “the experts”. He was more a visionary leader than a strategist, evidenced by TT2 saying of TT1 “He’s never read a strategic plan in his life.” The CSO strategic plan was always compiled and written by TT2 on behalf of TT1.

With these background characteristics, TT1 joined the CSO when it was under LEA control in 1983. At that point the CSO had no bank account, the LEA managed all finances and the CSO owned no property. This situation irritated TT1, because college

fee revenue earned from operations via international students, for example, had to be passed directly to the LEA, yet money received back for investment in facilities was severely limited by the LEA. There was a cash drain, away from the CSO towards the LEA. The CSO was dependent on the whims of the LEA, which meant that the CSO could not control its own destiny. In the 1990s the UK educational environment changed (Further and Higher Education Act, 1992) and LEAs were phased out, control being passed to the educational institutions. In 1993 the CSO became incorporated, the Board of Governors, 'The Corporation', was established and the CSO was in full control of its assets, finances and budgets, which it inherited from the LEA. Funding comes mainly from the FE and HE funding bodies (Learning and Skills Council [LSC] for FE and Higher Education Funding Council for England [HEFCE] for HE) and is closely related to student numbers. Growth of student numbers is the main driving force of increased income from the funding bodies.

There are six main areas that TT1 sees as the most important to manage and control when running a UK university: Funding & Finances; Students; Curriculum; Staff; Facilities; and Information. These areas combine and influence each other and as in any other business, relate in complex ways between various aspects of the organisation and its interrelationships with its environment (The six main areas are taken from an informal paper written by TT1, 09/07/2008 entitled "What are the key issues of success?" just prior to his stepping down as Principal.)

#### 5.4.5.1.1 PF - Funding - Investment/Students/Income/Surpluses/Investment = 'Virtuous Circle'

TT1 explained his understanding of managing an educational institution.

*"Education is, without any doubt, now a business. You have to make sure that there is more money coming in than there is money going out. Whatever you do, you have to do in a business-like manner."* (TT1 quote)

He went on to explain how he applies his principles to the CSO;

*“Controlling finances is a senior management function. Finances are, therefore, centrally controlled. Budgets are not delegated. Once the finances are right, the college (is) able to generate surpluses each year. The critical thing is that these surpluses (are) re-invested in appointing good staff and providing the best possible facilities for students. This generates an upward spiral. The staff and facilities are good; this attracts an increasing number of students here; this in turn generates income, (surpluses of) which can be re-invested to maintain the upward momentum.”* (TT1 quote)

Based on the above explanation of the ‘virtuous circle’, TT1’s overall strategy and guiding business model for the CSO has not changed for the 15 years (since incorporation, 1993 – 2008). The ‘virtuous circle’ comprises five main areas: students; curriculum; staff; facilities; and, information; which are mutually complementary to the generation of income and surpluses. This ‘virtuous circle’ is a very important part of the CSO’s SDP, being the mental model developed by TT1, accepted by all the TMT, and proven by the test of time, as the business model/business idea, which provides the basis by which all strategy decisions are made. It was developed by TT1 as the principal of the CSO during the period of the ‘old regime’/’positioning’ phase, and adopted by TT2 as principal during the ‘new regime’/’consolidation’ phase.

#### 5.4.5.1.2 PF - Students

TT1 is also very customer focused, as evidenced by his quote *“Never allow anyone to forget that we are only in a job because the students want to come here.”* The students are seen as the CSO’s customers. To this end the CSO provides the best possible environment in which students can learn, many of which come from very deprived local areas and are usually the first generation in the family to experience a university education. There are extensive support services and exceptionally good access to teaching and support staff as evidenced by student feedback, staff comments and the excellent OFSTED and QAA audit reports. The direction and strategies that relate to this area are delegated by TT1 to expert members of the TMT, mainly TT3 and TT4.

#### 5.4.5.1.3 PF - Curriculum

The courses and programmes that the CSO provides to students are vocationally orientated and their UK Service Industry sector focus and has not changed significantly since incorporation. They have, been up-dated and improved as the environment and demand has changed. The curriculum is designed for the service sectors comprising; Hospitality, Food and Retail Management; Recreation, Sport and Tourism; Childhood and Education; and, Sports Therapy and Salon Management.

*“It is essential to stick to what you are good at.”* (TT1 quote)

As a consequence of this the only changes made are those that are

*“contiguous at the edges to our special area (in which we are well positioned)”* (TT3 quote).

This focus attracts students and allows them to be well equipped to find work in the job market after their courses. The direction and strategies that relate to this area are delegated by TT1 to expert members of the TMT, mainly TT3 and TT4.

#### 5.4.5.1.4 PF - Staff

*“You must get the right staff in the boat and they all have to row in the same direction. You need to get the right people in the bus on the right seats and we can all have a good journey. We try to get the best staff in terms of both academic qualifications and relevant industrial experience. They are the college’s most important resource.”* (TT1 quotes).

Staff are recruited that are expected to fit into the CSO culture, they are well paid and trained, when and where necessary; and the results are very good staff retention statistics, compared to the sector. At TMT level, TT1 employed and promoted people to complement his skills. *“I employ people to run the operational side of things, who are much better at running the operational side of things than I am.”* To this end (in the ‘old regime’) TT1’s direct reporting TMT members included: TT2, a very organised person who likes to be aware of all matters related to the CSO and tightly control the important things; TT3 is a very experienced curriculum development person, well aware of the



quality requirements of all the inspecting bodies; TT4, is a well-travelled and well-connected academic, adept in building good relationships with international institutions; TT5, an administrative manager with LEA experience and the ‘conscience’ of the CSO; TT6, an experienced and well connected administrative manager; TT7, a management accountant well aware of the demands of the funding bodies and all the financial costing aspects of the CSO; TT8, an IT (Information Technology) and MIS (Management Information Systems) expert specialist in public sector and FE/HE systems..

TT1 says of himself:

*“My job is strategic planning and in the main, the financial plan and dealing with political matters, and in the main, dealing with funding councils and that sort of thing. A lot of my work is external to the college and in many ways protecting the college from any threats that may come along. We fight for the college with regard to external organisations, like a tiger with sharp teeth protecting its cubs.”* (TT1 quotes)

#### 5.4.5.1.5 PF - Facilities

The facilities of the CSO are seen as a very important and long term aspect, and as such it is seen as a main area of responsibility for TT1, for which his experience and capabilities are well matched. Facilities include property, premises and the equipment and furnishings.

Because of how the CSO is organised, as outlined above, the organisation has been able to move from a position at incorporation (1993) with very little cash and only the two buildings it inherited at the time from the LEA; to a position, 15 years later, at the start of the ‘new regime’, with significant investment reserves accumulated from annual surpluses, a shrewdly acquired property stock, best quality owned student accommodation, and *“we have never borrowed a penny to pay for capital.”* (TT1 quote)

This long term financial stability has allowed the CSO to up-date its facilities continually over the years – student accommodation, restaurants, cafes, sports halls, computer suites, libraries, Research Centre, Careers Centre, Study Support facilities, Student Support

facilities, e-learning facilities, etc. At the same time, the shrewd property investment has allowed the CSO to simultaneously significantly increase the value of its reserves and (geographically) position itself to build and move into larger, better and up-to-date premises in the future (under the ‘new regime’) in an area close to its current location.

#### 5.4.5.1.6 PF - Information

TT1 is very well connected with external bodies and with government departments (local and national).

*“Functionally, it’s my job to make things happen after other people (government officials) have decided what they want; and the view of the government is that it (FE and HE educational institutions) should be run in that (businesslike) manner, and the reason why it should be run in that manner is because of a finite amount of resources, it’s tax payers money we are spending.” (TT1 quote)*

TT1 has built his TMT so that they are all very aware of their areas of responsibility, one of which is:

*“to scan the external environment”. “Some have a wide horizon, others a more narrow focus” (TT3 quotes).*

*“(The CSO) is a member of the Universities and Colleges Employers Association (UCEA), the Guild of Higher Education (GHE), the HEFCE Regional Board, and the West Midlands HE Authority and all the TMT members have their own personal and professional networks.” (TT2 quote)*

*“The Principal, as the nodal point, picks up the early opportunities and threats and makes a judgement (based on experience and intuition) and adjusts the strategy accordingly. (The TMT of the CSO) saw it (the public sector and environmental/funding tightening/cuts) coming, via its good network of contacts, by ‘reading the runes’ of ‘early government guidance’. The sensing is by the skilled team capable of sensing the environment: a very balanced and experienced team – curriculum, funding, finance, estates, HR, etc.” (TT9 quotes).*

TT1 was happy to have TT2 performing the role of ‘gatekeeper’ of information coming in, and to access, to him.

#### 5.4.5.1.7 PF - Observations and Summary of TT1

The funding, finance and generation of revenue and surpluses areas are considered the most important aspects of the organisation. These are not substantially delegated and are

very tightly controlled by the Principal. This tight control was not so apparent from the personal work conditions of TT1. (The work environment of a person often helps explain a person's character.) TT1's office and desk were very busy places with paper, piles and files everywhere. He manages to make sense of the many inputs to his rôle as the CSO strategist, and is able to see the opportunities and threats and make the right decisions in a timely manner, despite his apparently unorganised work area. TT1 is always very aware of the big picture, and is also able to find the important finer details.

*"The opportunities and threats are in the detail."* (TT1 quote).

He does not want to know, or need to know of the finer details of operational matters, which he leaves to others in his team ("the experts").

*"TT1 is a spotter of opportunities. He can call the big shots and dare to do them. He's also a seller and motivator and an unconventional leader."* (TT5 quote).

TT1 also has a clear sense of responsibility.

*"My responsibility is set in statue, it's set by the Secretary of State under acts of Parliament that I am responsible to the Governing body for the efficient and effective running of the organisation and the financial solvency of the organisation. That's the legalistic terminology and that's what my job actually is."* (TT1 quote).

TT1 is very aware of the organisation and the wider environment, in which the CSO operates, is very 'driven' and a 'doer' and likes the satisfaction of achievement.

*"My attitude to money is fairly conservative, we'd never spend money that we haven't got, always make sure that we've got plenty of money in the bank for a rainy day. If you look at the Halls of Residence there are 850 student residences up there. When we left local authority control (1993) we didn't have a blade of grass. Now, there is not a university in the country that has got better halls of residences and better facilities than we have, and if you think 10 years ago (1993 – 2004) we had nothing there, nothing at all. A lot of time and effort goes into acquiring land to build on and to make sure the finances are right. To be able to undertake a project like that, which is sitting in the books with a net asset value of around £40 million, from nothing, without a penny debt (is quite an achievement). (The CSO) as a cash-rich organisation, can act very quickly and we've made some fantastic strategic acquisitions, the (DB site for the student accommodation) was a fantastic site to get, we've spent £1.5 million on that in 1994 (now [2004] it's worth £17 million)." (TT1 quotes)*

He also explained how he and the CSO achieved so much.

*“The ability to foresee potential problems and make changes, because you’ve got to see what’s coming and you’ve got to be able to change quickly, for example if the numbers on one course are going down and there’s demand in another course, you can’t sit around in committee meetings hour after hour and debate the academics and whether you are going to change or not, you simply do it. Should we always have clear goals and targets I think ‘no’, we shouldn’t go around for targets to hit, just for the sake of it. Having said that, once you see which way the organisation should be going, you’ve got to make sure you get there...but, targets can get in the way. What’s important for a leader is not to do anything daft that de-motivates good staff, because good staff don’t need to be motivated.”* (TT1 quotes).

In making these achievements, TT1 has been very defensively aware.

*“A lot of my work is actually external to the College, and in strategic direction of the College, and in many ways protecting the College from any threats that may come on board”.* (TT1 quote).

*“(TT1) saw a conspiracy around every corner.”* (TT2 quote of TT1).

This latter quote may explain the secrecy, information available on a need-to-know basis, and general limited communication within the CSO, during his regime.

*“Three years ago (2005) there was zero transparency (0/10), now (2008) there is three or four out of ten (3-4/10). We’re not half-way there yet, but I have hope.”* (S1 quote)

To perform his role as Principal, as he saw it, TT1 worked with a small group of people, mainly TT2 and TT5, all situated in the same office grouping on the same floor. TT2 complemented TT1’s wider environmental awareness with a very detailed awareness of the CSO’s internal performance and capabilities. TT5 was an experienced and long-standing colleague to help with (local and national) governmental matters and co-ordinating with the governors. He acted as the CSO conscience helping with legal and constitutional matters. These three, TT1, TT2 and TT5, were the core strategy development team, when not involved in operational and relational matters. They were always meeting in each others’ offices for informal discussions, where the main ideas were developed and agreed. As can be seen from the above Table 8 ‘Origins &

Backgrounds Overview and Summary’, TT1 and TT2 had ‘humble’ origins, which explain the desires to develop an FE/HE institution as a ‘2<sup>nd</sup>. Chance University’ for students ‘with the ambition and commitment to succeed’ (Versions 2 & 3 of the CSO mission statement), reflecting what both TT1 and TT2 have both achieved in their careers. They both also wanted a college with no debt and solid finances, yet have really good quality facilities and teaching quality. TT2 and TT5, with their complementary backgrounds in FE teaching and the LEA, respectively, provided a thorough knowledge of management and requirements for running a (FE) teaching institution; and both also provided a counter-balance of grounded reality to the vision, ambition and drive of TT1. For more operational issues (mainly for FE, HE and general educational matters), TT3 and TT4 were called upon for inputs, advice and opinions. Their backgrounds were similarly aligned to the core team (TT1, TT2 and TT5), yet with more experience in curriculum development and international students needs, respectively.

TT6, TT7 and TT8 are not seen as major players in the CSO strategy development process. They do provide a great deal of information, structured and analysed, at the direction of the other members of the TMT, but their roles are more about to being very good, high level administrators providing information inputs, than as significant actors in the development of CSO’s strategy. TT6, TT7 and TT8 know each TMT member very well, and have known them for many years, and are able to sense and anticipate what data and information is required. They also know why information is required in particular areas and can initiate research and studies to satisfy current and anticipated needs of their TMT colleagues.

All of these ‘old regime’ TMT members have personally and collectively achieved a great deal in their careers. They have worked hard to obtain good and consistent results, and all seem quietly confident that their success will continue.

#### 5.4.5.2 PF – TT2, Principal of the CSO (2008 – current)

*“TT2’s humble Leeds background and early FE teaching origins”* (TT5 quote)

His background has framed his outlook on life and the way he operates. TT2’s office is very tidy and orderly, with a place for everything and everything in its place. The desk is neat with all items placed in regular patterns. His handwriting on his whiteboard is small, neat and in ordered, straight lines, with ‘i’s dotted and ‘t’s crossed. These workplace observations are usually clear indications of a character that prefers control and order, which is also apparent in his manner of working.

*“TT2 is very well informed throughout the organisation. He controls his subordinate network (TT5, TT6, TT7, SM4, SM8) very tightly. They also belong to the same golf club and drink at the same after-work pub”* (L1 quote).

*“Everything in this college is channelled through TT2, even down to the minutest detail.”* (S1 quote).

*“Everything from external sources goes over TT2’s desk, very quickly, to another member of the TMT, usually TT3, but rarely TT4 (who is considered mainly operational)”* (SM12R quote).

*“We do things when it suits us (the TMT), at all levels.”* (said by S1 quoting TT2).

Because it has been only two years since TT2 took over from TT1, there is less information on which to base an analysis of his ‘Principalship’. What follows below is an explanation of the re-organisation TT2 initiated and of the style of leadership that is unfolding.

##### 5.4.5.2.1 PF - Re-Organisation

Soon after it was announced that TT2 was the new Principal, some organisational changes were made. TT4 was moved sideways from his role as Head of Academic Affairs, which was seen as an operational role, to head the drive to ensure an appropriate number of non-EU international students continue to come to the CSO. This was a good move because TT4 is very experienced and good at developing international

opportunities for the CSO. TT4 was also relieved of his VP rôle to allow him to focus on his new rôle. (TT3 became the Vice Principal.) But, in addition to this:

*“There is ‘history’ between TT2 and TT4. They don’t like each other.”* (L1 quote and ORG data from L17)

And, TT4 is close to retirement age. Such a move allowed TT2 to assemble his favoured team around his position, yet allowed TT4 to develop independently towards his retirement. At the same time TT2 promoted SM1 (now TT10), who was responsible for all the FE courses offered by the CSO, to the TMT, to replace TT4 in the role of Head of Academic Affairs. This is in line with TT2’s FE affiliations.

*“TT2, the new Principal, is very much an FE man in background and leanings. And, as such values TT10 (and his FE background)”* (SM15 quote).

Shortly after the announcement of the new TMT, the geographic area of the offices in the current main building housing the ‘Principalship’ was extended and changed to accommodate TT2, TT3, TT6, TT9 and TT10, which previously accommodated only TT1 (stepped aside to complete property negotiations), TT2 and TT5 (who retired). [See Appendix 15]

This relocation of the main TMT members facilitated the numerous informal interactions that take place continually and on a daily basis between TT2, TT3, TT6, TT9 and TT10. These organisational changes and physical relocation of offices have been seen as

*“Freezing out people (TT2) doesn’t want in his inner circle and at the same time including those he does want” and this is linked to TT2’s need to control things from the centre”* (SM15, ORG data).

At the same time a re-organisation of the top management regular formal meetings was made. Under the ‘old regime’, there was the weekly meeting of the TMT, known as the Senior Management Team (SMT) meeting, to convene every Monday morning. In addition to this the College Advisory Group (CAG) meeting, met every month, which comprised the SMT members and a large number of people representing all the main

departments, often more than 25 people. This latter regular meeting had become very top down in style and unproductive.

The TMT now meets once every two weeks on Monday mornings, and is now called the Executive Management Team (EMT) meeting. A 'new SMT' (to replace the CAG), comprising the TMT and a few selected senior managers now meets every other, interlocking Monday morning.

#### 5.4.5.2.2 PF - TT2 Changes in the Style of Management of the CSO

From observations it is clear that there is more communication from TMT members within the CSO under the TT2 regime than under the TT1 regime. The TT1 regime was characterised as being "*secretive*" and information was shared on a "*need-to-know basis*" (SM12 quotes) and very little was seen of TT6, TT7 and TT8, who seemed to confine themselves to their own office with visits only to their subordinates or the offices of other TMT members. Now, from observations, these TMT members are more visible and have been involved in staff communications briefings.

In addition to this TT2 has initiated a series of Staff Communications Sessions. The first was held (16/03/2010) by TT2 and TT9 to all the staff (who wanted to attend) to explain the new CSO property and premises development. Referring to this and in discussion with TT6, it seems that the timing of the session was not significant, it was merely meant as a start to a series of communication sessions. It seems that the TMT had become aware that communication from the TMT is important for other members of staff. The TT2/TT9 event was thought to be a good start for the communications session series, because it allowed the top person (TT2) in the CSO to 'kick off' the series and it would also be a good introduction of the newest member of the TMT (TT9), acquired externally. The topic, an explanation of the CSO property investment plan, was also thought to be a good positive and motivational message to transmit at a time when there



is so much negative economic news, generally. The session was supposed to show the confidence of the TMT in the CSO's future, despite the current economic environment; and it produced many favourable responses.

The second communication session (20/04/2010), run by TT3 and SM4 (with TT2 in the audience for observation and to answer questions) was entitled "Working with Employers and Business" and links with the UK government initiative of improving FE and HE 'employer engagement' with industry. The session explained the 'CSO Business Hub', which had been in existence for many years and known as the 'Community & Business Programmes Unit' and then later as the 'Centre for Business Advantage'.

Because of the difficulties in the FE and HE funding environment, which is likely to exist for many years, CSO Business Hub is seen as a potential new revenue stream source to partially fill the public sector funding gap.

*"The (TMT) has decided that 'employer engagement and business involvement' is now strategic. We are doing this now because we have to."* (TT2 quotes)

*"We all (in the CSO) need to work together."* (TT3 quote).

Also announced was the investment in a CRM (Customer Relationship Management) computer system to help support the CSO Business Hub and the request was made to the audience to share our personal professional networks of contacts, so that potential revenue opportunities could be developed. The next communications session planned is to be held by TT6 on government/educational trends/shift sensed. (This will be timed when the change of UK government and possible change in educational policy and funding is clearer.)

The idea behind these communications sessions is to develop wider educational and business awareness among CSO staff in general in the spirit of personal and management development. The communication sessions series is seen as a novel strategy of the 'new

regime' TMT in sharing information. It could also be seen as developing organisational communications generally, 'lubricating' and extending the excellent sensing capabilities throughout the organisation.

The main point to note is that the origins of development of the CSO, based on the 'old regime' and under the visionary leadership of TT1, forms the recent background development of TT2 and the foundation upon which he is building the consolidation of the CSO. There have only been minor changes to the TMT. The leadership has passed from TT1 to TT2 and TT1 is now a semi-retired consultant to the college; TT5 has retired; TT4 has been sidelined, relieved of his vice-principal position and focuses on the recruitment of international students; TT10 has been promoted to the TMT (was a long standing senior manager running the FE operations), and could be seen as a replacement to TT4, because of his similar background; and TT9 has been externally recruited (although known to TT2 and many others from his previous employment with the college) to take on the estates development role (from TT1) and the HR role (from TT2). From interview and ORG data it seems clear that TT2 is less of a visionary leader, compared to TT1, and more a professional manager, using monitoring and control methods upon which to base his decisions. It seems clear that he wants a larger and more diverse team within close proximity, for consultation, discussion and decision-making. TT2's team also includes TT3, a trusted colleague he has worked with for more than a decade; TT6, part of the sub-team, which also includes TT7 and TT8, whose core responsibility is ensuring the CSO achieves the FE and HE student numbers and the funding that goes with them, accounting for 85% of annual revenues. TT2, TT3, TT6, TT9 and TT10 are all now located in one office grouping, for ready access to each other, facilitating the already well established, informal and continuous, daily interaction.

*“(The CSO) saw it coming via its good network of contacts” (the public sector and environmental/funding tightening/cuts) by ‘reading the runes’ of ‘early*

*government guidance'. The Principal (TT2), as the nodal point, picks up the early opportunities and threats and makes a judgement (based on experience and intuition) and adjusts strategy accordingly. The strategy is ultimately approved by the Corporation. The sensing, as inputs to this, is by the skilled team capable of sensing the environment; a very balanced and experienced team – curriculum, funding, finance, estates, HR, etc. TT2 wants to open up and widen the decision-making and get more people involved. (The CSO) has a broad idea of where it wants to be, but much depends on government policy. Funding is now limited and this will slow (the CSO's) growth, unless other funding streams can be found. We have a lot of jig-saw pieces, but we don't know how to put it all together (yet). In the EMT, the topic specialists take the lead in the discussion. A draft paper is produced, from a range of inputs. Informal discussions will be had with the Principal and others to gain views of all stakeholders; the aim being to understand the needs and looking towards the future. There is a lot of informal discussion. There needs to be a centralised execution team (EMT), but these must get out and about and see all areas and all people. Communication is generally good, but wider involvement of all staff is needed. TT2 does (communicate more) and plans to do (even) more of this. He will be doing more involving in more forums." (TT9 quotes).*

The wider participation of more senior managers and people from lower in the hierarchy has begun to improve the already good environmental sensing, but needed because of the increase in complexity of the environment, and also to help more staff develop general management capabilities.

*"The 'old regime' had fewer strategy variables, both internally and externally. The current situation is more complex and needs more involvement. (The CSO) has fantastic curriculum development people, but they don't have a wider (business) picture. They have not been involved in people management issues, funding, estates; in short they have not got general management capabilities. There are now moves afoot to prepare managers to be more rounded, to give them wider awareness, than curriculum matters." (TT9 quotes).*

Despite these shifts in widening participation and improving the environmental sensing, the main focus of operations remain the same; Hospitality and service sector courses for both FE and HE provision.

*"Our unique positioning is because we are so small, (even) with (a small) management team... We have a very good understanding of both FE and HE sectors because of the way the organisation (has developed), because of the people within the organisation, because most have worked in or across both sectors so it is not a college doing a bit of HE, and it is not a university doing a bit of FE. The organisation strategically positions itself, and has done so for a long time, between FE and HE; and that is a clear choice. That is the strategy for the future (to take advantage of the opportunities of the environmental shifts*

*going on). Because of this the FE and HE curriculum areas tend to be very much alike.” (TT10 quotes).*

The new members of the TMT, TT9 and TT10, have been known by TT2 for a very long time. They complement the old established TMT members well and improve the team for the future ahead (‘consolidation’), which is broadly similar as for the ‘old regime’.

#### 5.4.5.3 PF – Non-Top Management Team People

Because this research focuses on the strategy development process, the main area of attention was paid to the key people involved in developing strategy, the Principal and the members of the TMT, as explained above. This section considers the data gathered mainly from the 26 of the 36 (72%) people interviewed, who were not members of the TMT. Although not key players in the process of developing strategy for the CSO, they do contribute in some aspects of the process and play a role in the emergent nature of some of the strategy elements. Non-TMT peoples’ backgrounds and origins are also important in this context.

Generally, non-TMT people have similar backgrounds to the TMT people. Many have a background in the Hospitality sector and many are from the local area. Most of the academic staff have backgrounds (training and practical business experience) in their appropriate specialist teaching areas: Hospitality, Tourism, Sports, Childcare and Education, and Health and Beauty, sectors. This industry experience was a main reason for their selection (to show industry relevance and to make a link between the academic theory and practical industry application in their teaching). Many also had middle and senior management experience in their prior industry sector roles. Many of the non-academic staff also come from the Hospitality sector, and many also came with various relevant administrative sector experience with other organisations (for example, marketing and local government).

The predominance of people with a hospitality background, where senior managers and TMT members with a hospitality background have recruited people with a similar background, has probably contributed to the ‘Hospitality culture’ mentioned earlier. There are also two other groups of people within the CSO, which have background characteristics that probably contribute to the ‘Steady Progress’ pattern of organisational development. One such group is formed of members of CSO staff that were previously students of the CSO.

*“There is an interesting group of staff that were also students of the college.”*  
(SM11 quote).

Some of these staff academic members have joined via the Graduate Teaching Assistant (GTA) scheme, and others have maintained good relationships with former tutors and have applied for vacancies via their contact with them.

*“Another interesting group is staff with partners also employed by the college.”*  
(SM11 quote).

*Several staff members are partnered to other staff members, which seems unusually high compared to other similar institutions. (from ORG data)*

Because of the functional organisational structure of the CSO’s operations, and the lack of horizontal communication flows below TMT level, most non-TMT staff are unaware of the developments and changes of other departments, despite the informal interactions mentioned above. In a similar manner, because the downward flow of communication from the TMT has been poor, and only recently improved with the ‘new regime’,

*Most non-TMT staff are unaware of the direction and strategy of the CSO. (from ORG data)*

#### 5.4.5.4 People Factors - Summary

With regard to the CSO developing strategy and the people factors examined above. It appears that the main strategist is the Principal. He is recognised and accepted by the

organisation as the strategic decision-maker. The other members of the TMT marshal their resources and provide inputs to the CSO SDP via continual informal discussions, where strategy changes emerge, become crystallised, formalised and implemented in a steady and intuitive manner.

The background of the Principals (TT1 and TT2), their personal characteristics, and the previous decisions made, influence significantly the SDP and resultant strategies, reflecting the 'People and CAS Histories' characteristic of the five PF facet of the CAS lens. This influence area appears to be the most important aspect of the PF facet and the CAS characteristics in the study of the CSO, from the data gathered and the analysis done.

TT1's background (humble Scottish Presbyterian) and experience (Hospitality) has clearly framed his style of management and leadership, influenced his vision for the CSO, allowed him to develop and imbed his 'virtuous circle' business model, resulting in the 'Positioning' phase of the CSO's development over his 25 years of tenure (1983 – 2008).

With regard to the 'new regime', much remains the same, but subtle changes have been detected in the CSO's SDP and the resultant strategies, despite only two years under TT2 (2008 – 2010). The 'virtuous circle' business model has been adopted by TT2 and the 'new regime's' TMT. The Hospitality culture is still a significant influence on organisational behaviour. Both these two aspects reflect the history of the CSO. The subtle changes mentioned reflect the background and personal characteristics of TT2. TT2 has FE teaching as his work experience background, although members of his TMT have Hospitality experience (TT4 and TT10). He is also a well organised and controlling professional manager, and has started making the appropriate changes to allow the CSO to adapt to the increasing dynamic complexity of the environment in which it operates.

The aspects mentioned above, inherited from the ‘old regime’ and the subtle changes made and being made characterise a ‘consolidation’ phase in the CSO’s development. Non-TMT people in the CSO play only minor roles in the SDP, except for the sensing and sense-making elements of the process.

The other characteristics (than ‘People and CAS Histories’) of the PF facet of the CAS lens, appear to have less significance to the CSO, but are not completely absent. Figure 13 below summarises the CSO Key Players with regard to strategy development (TT1 and TT2) and the main ‘people factor influences’.

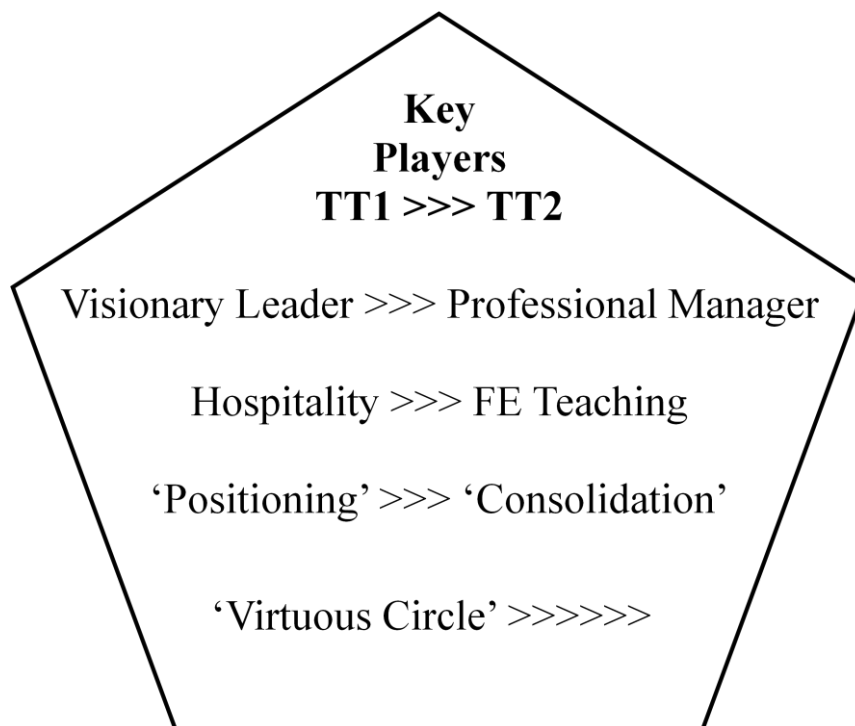


Figure 13 – CSO Key Players; People Factors Influences

In line with the ‘Steady Progress’ pattern of behaviour (PD facet) of the CSO, the changes made in the TMT members and their way of interacting has not been radical. TT2’s succeeding TT1, as the Principal of the CSO, was widely expected (ORG data); and the changeover of Principals in the ‘interim’ period, was long and steady, in common with most changes perceived within the CSO. The significant weaknesses of management progression, internal communication and the improvement needed in

environmental sensing, all of which are significant people issues, were recognised and steps were made to make improvements in a steady measured manner.

The significance of the 'Hospitality' sector background of many people within the CSO, and particularly those in the TMT involved in developing strategy, significantly in the 'old regime' ('Positioning' phase), is clear from the above. It affects the expectations about the way people interact, how they actually interact, and the general culture of the organisation. Related to this is the informality of communication, supportive interactions and general busy flexibility that allows the CSO to be very responsive in operational development.

#### 5.4.6 Complex Adaptive Systems (CAS) Perspective – Summary

The use of the CAS lens as explained in the Methodology chapter provides a wide perspective of the CSO, and in the context of this research, extends the understanding of the process of how the CSO develops its strategy. Each of the four facets of the lens: continuous varying interaction (CVI), patterns development (PD), self-organisation (SO), and people factors (PF), contributes to this understanding. All of these facets interact and influence each other, and together give a picture of the CSO's organisational behaviour.

The CVI facet explains how the people within the CSO interact with each other to develop strategy. The evidence found that the main process is a very large number and variety of informal discussions, most of these being face-to-face interactions. The main information flow perceived from this interaction, with regard to strategy development, is between the members of the TMT. The next most important flow is throughout the functional hierarchies, and the weakest is across the functional departments. The end result is the TMT being the focal point of information flows, and this is generally seen as being positive and logical. Some non-TMT members of staff perceive these flows as negative because weak cross-functional knowledge of other areas of the CSO and non-



TMT levels, and because of the imbalance between information flowing towards the TMT is stronger than the communication from the TMT. This latter imbalance has improved since the establishment of the 'new' regime under TT2. At the same time as the predominance of informal interactions, there is a network of formal meetings in and across functional areas, at all the hierarchical levels, which 'formalise' the activities that need to be evidenced for reasons of governance and for various external bodies (for example HEFCE, LSC, QAA, OFSTED).

The PD facet explains the main CSO behaviour patterns that influence strategy development, that are a consequence of the CVI. These main patterns detected from the evidence are; monitoring and control, mutual support, business-like, steady progress, environmental attuning, and values and beliefs implementation. All but the first two ('monitoring and control' and 'mutual support') are generally seen as positive; 'monitoring and control' is perceived to have some positive and some negative aspects. There are very many aspects of the CSO's operations that are measured and monitored, that are used to assess operational performance and inform decision-making. The aspects that are considered important, revenues and surpluses and their subsidiary components (student numbers, quality measures, operating costs, for example) are very tightly controlled. These aspects are generally seen as positive and necessary, particularly by the TMT members. There are also many other aspects of lesser importance, including "*many little enforceable rules.*" (SM15 quote), that many non-TMT staff feel could be enforced, which perpetuates a 'control culture'. This 'control culture' is seen by some as negative, restraining creativity and innovation.

The 'mutual support' pattern is a more subtle but strong pattern, that is generally positive within the CSO allowing a 'can-do' attitude. There are some negative aspects of this pattern perceived in the non-TMT levels, where the support is used as a coping device to

manage the restraints of the ‘monitoring and control’ pattern that impinges on day-to-day work practices.

The ‘business-like’ pattern is closely linked to the ‘monitoring and control’ pattern, but also reflects the constant pressure to maximise revenue streams and control costs, to ensure a surplus on operations, so that the ‘virtuous circle’ business model is adhered to. This is generally seen as positive by all within the CSO and most external agencies, although some non-TMT members of staff consider the CSO to be too business-like at the cost of innovation. This negative aspect of the ‘business-like’ pattern is perceived to be weaker than the negative aspect of the ‘mutual support’ pattern mentioned above.

The ‘steady progress’ pattern reflects a cautious and prudent attitude to all aspects of the CSO’s operations, where the very good, defensible, market niche position is maintained, despite significant changes sensed developing in the operating environment. This ensures that activities are kept closely to the known areas and nothing risky or radical is attempted; only small adjustments to core activities and ways of operating are considered, although these adjustments can be made rapidly to respond to opportunities and threats. This way of operating is generally felt to be positive to all members of staff.

The ‘environmental attuning’ pattern, is a very strong pattern, whereby the CSO can sense and interpret subtle changes in the operating environment, maintain an acute awareness of changes, and ensure the information reaches the decision-makers (usually TT2, or other members of the TMT) for speedy adjustments. The TMT members are formally and informally well connected to their personal and professional networks in such areas as the FE and HE sectors, international students (origins, numbers and needs), government departments, and various appropriate agencies (HEFCE, LSC, QAA, OFSTED, for example). For non-TMT staff, market niches sectors are continuously

monitored via their personal and professional networks; Hospitality, Leisure, Sport, Education and Childcare, and Health and Beauty.

The pattern of 'values and beliefs implementation' is generally seen as positive by most people within the CSO. It also has strong links to the educational sector, and perhaps the FE sector in particular, where there is a general genuine desire to help young people (students) achieve something during their time with the CSO. This pattern reflects respondents' references to the CSO being the '2<sup>nd</sup>. Chance University'. Version 3 of the CSO mission statement ('...provide the opportunity for participation in the learning process by those with the ambition and the commitment to succeed...') also reflects this pattern. However, some non-TMT members of staff feel that this pattern is compromised by the other patterns of 'monitoring and control' and 'business-like' mentioned above.

This SO facet of the CAS lens has shown self-organisation among the TMT members as they do what they feel is necessary to perform their roles as a team and also in the way they generally delegate and empower their senior managers to perform their roles in the hierarchy of the CSO. At levels lower than senior management, self-organisation is seen as a complication by many TMT members and senior managers. Many non-TMT and non-senior management staff members feel their ability to organise themselves is restricted by the very powerful 'monitoring and control' pattern of behaviour.

Simultaneously these staff members also organise themselves spontaneously to cope with the restrictions of the 'monitoring and control' patterns with 'work-arounds' and short cuts.

The PF facet shows that the backgrounds of people have a significant affect on the process of strategy development of the CSO. The main strategists' backgrounds, TT1 with the 'old regime' and TT2 with the 'new regime', have important characteristics that have now been firmly embedded in the direction, strategy and processes of the CSO.

This has resulted in a robust market niche position and a manner of operating that is resilient, despite the increasingly complexity of the operational environmental changes. The hospitality sector and FE sector backgrounds of many people within the CSO have contributed to this. Very little has changed in the people or types of people despite the regime change, reflecting relative stability in the organisation over the 17 years since incorporation, and indicating an expected and broadly predictable future. Figure 14 below summarises the organisation specific influencers on strategy development.

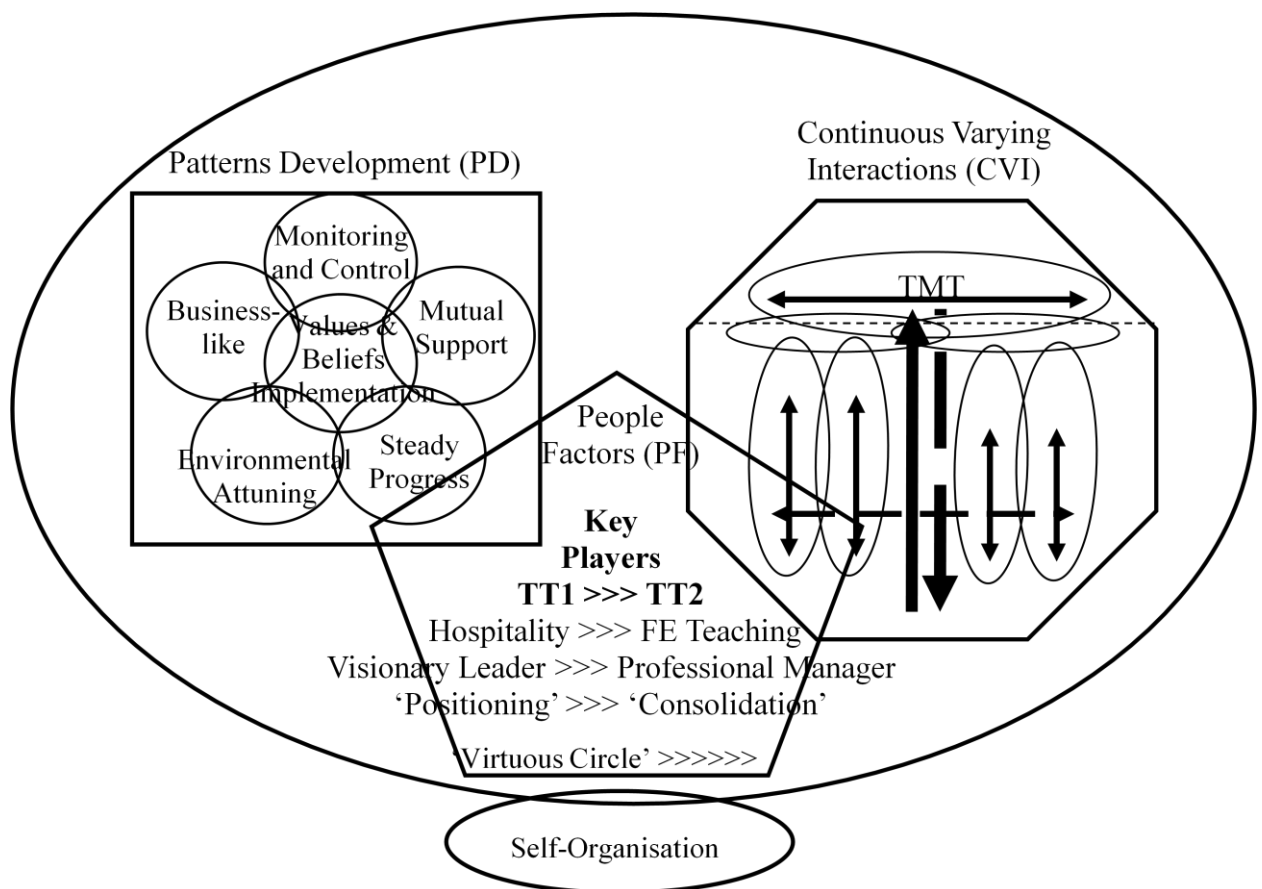


Figure 14 – Summary of CSO Organisation Specific Influencers

The CAS lens applied to the CSO

Overall the CAS lens, with its four facets, shows the CSO in a wide perspective, as a complex adaptive system, and sheds more light on its strategy development process. The CAS lens provides a link between the wider aspects of the backgrounds of people in the

organisation, their interactions, the patterns these dynamic interactions form, and the possibilities for self-organisation that groups and the CSO have, and how these enlighten the strategy development process of the CSO. The CAS lens also links to the organisational behavioural aspects, such as culture, power, politics, hierarchies, habits and rituals, customs and traditions, which are always running in the background as the organisation performs its operations; but these are not a focus of this research. Below follows the next section that explains the research findings in the context of the conceptual framework mentioned earlier (chapter 3).

### 5.5 The SDP and CAS Findings Related to the Conceptual Framework

As a reminder, the diagram (Figure 6) shown here again below summarises the conceptual framework upon which this research is based, explained in chapter 3.

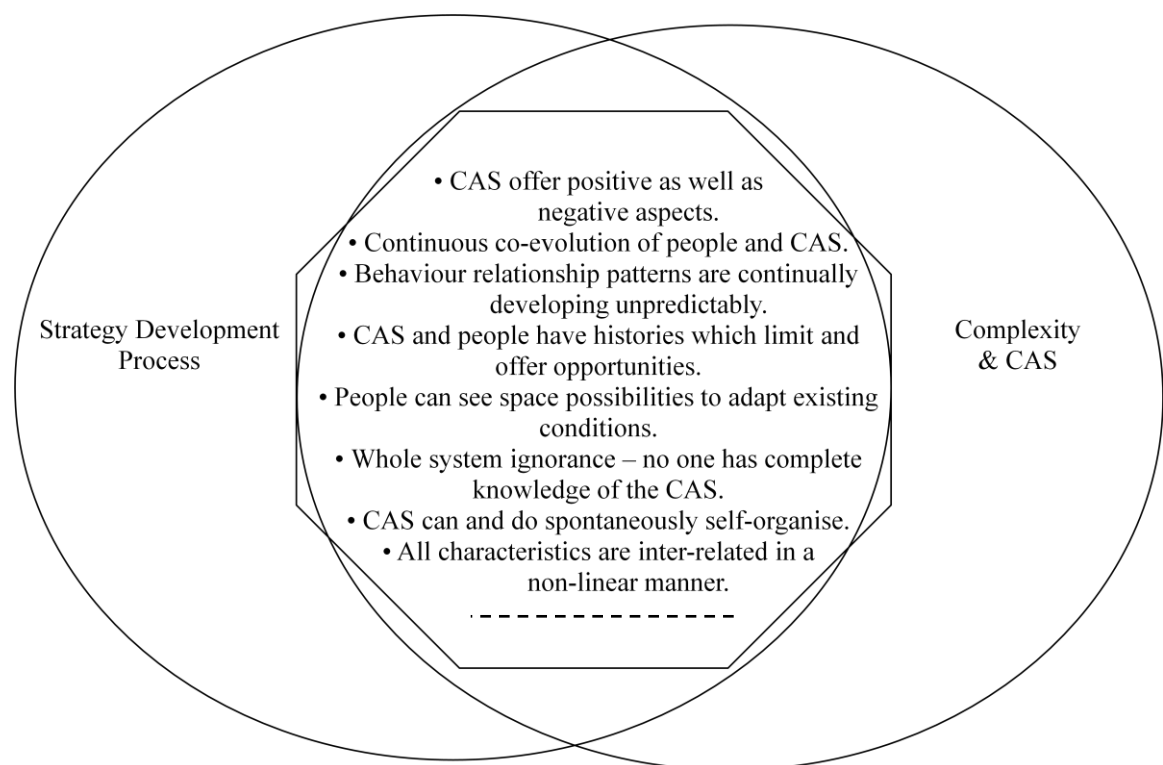


Figure 6 - Conceptual Framework

By using the ideas contained in the conceptual framework, the findings from the data gathered from the CSO and analysed via the SDP model framework and the CAS lens

framework, it is possible to focus upon the wider aspects of the process of developing strategy in an organised and structured manner, which enhances the understanding of the SDP, and complements the SDP model. The following parts of this section examines the findings above (from sections 5.3 and 5.4), to provide information on the wider aspects that may need to be considered when studying the SDP of an organisation.

#### 5.5.1 Continuous Varying Interactions (CVI) Aspects of the SDP

Studying the CSO findings it is clear that the 'sense-making' element of the SDP model is done thoroughly as part of the CSO SDP process, for both internal and external information. The way this happens, in the CSO, is via a larger number of informal, face-to-face meetings between small groups of TMT members and their departmental hierarchies. This sensing part of the process is continuous, well developed, and productive.

These sensing, sense-making and mainly informal discussions form the main part of the CSO process of developing strategy, which is emergent in nature and not at all formalised, although formalised outputs are produced, in the form of brochure-like documents (the Corporate Plan 2007-2012, for example), for external stakeholders. However, lower down the CSO hierarchy, for non-TMT staff there appears to be frustration that matters in which they are involved and want to communicate upwards are not reaching TMT level for possible (strategic) consideration. The interview data shows that what may seem as small items of information from (less significant) people in the organisation, may be having large affects on the behaviour of staff and the generation of ideas, creativity and innovation from them, evidencing non-linear influences on behaviour.

The seven process elements of the SDP model can be facilitated or hampered by the communication and interactions of the people in the organisation. The findings show that there are communication and information flows that generally allow the organisation

to perform very well, but some elements of these flows and interactions may be limiting the element of ‘creating strategic initiatives’ of the SDP process. (See Figure 11 in section 5.4.2 above.)

#### 5.5.2 Patterns Development (PD) Aspects of the SDP

The behaviour patterns detected reflect the culture of the CSO (which are not a focus of this research), but they also provide the background to the CSO’s SDP, and as such explain why some elements of the SDP model happen and also provide a certain degree of predictability in some aspects of the CSO direction and strategies (content). As can be seen from section 5.4.3 ‘CAS facet – Patterns Development (PD)’ above, six main patterns of behaviour have been detected via the CAS lens. Some hamper and some facilitate the development of the CSO’s overall strategy, and all influence each other, and the SDP process, because they are continually developing.

The ‘monitoring and control’ pattern and the ‘mutual support’ pattern combine at the TMT level to give a strong level of mutual trust and confidence in each other. These linked patterns are reinforced by the strong market position the CSO occupies in a narrowly defined market niche and the excellent performance measures the CSO has enjoyed for a long period of time. The TMT feel there is no need to make radical changes to the overall strategy; the ‘monitoring and control’ works, and the ‘mutual support’ from all in the TMT is reassuring, if any doubts arise.

At non-TMT levels in the CSO hierarchy, the ‘monitoring and control’ and ‘mutual support’ patterns work positively, in a similar manner to the TMT mentioned above, but from ORG data, negative aspects have also been detected, where the ‘mutual support’ helps staff members cope with the tight ‘monitoring and controls’. The creativity of the non-TMT staff is sometimes channelled into developing short cuts and ‘work-arounds’ to help them cope with the bureaucracy of the ‘monitoring and control’ processes, rather

than activities that could help the TMT with ‘creating strategic initiatives’ (SDP) to improve teaching quality or establish additional income streams, for example.

In a similar manner to the above, the ‘business-like’ and ‘values and beliefs implementation’ patterns also link and form an appropriate balance for the CSO, which is generally seen as positive by all, but a few, within the CSO. The ‘business-like’ pattern is a very strong positive limiter on the ‘setting strategic direction and goals’ element of the SDP model, and has been such a robust and successful long-term pattern, that very few radical initiatives have occurred, or seem likely. The ‘values and beliefs implementation’ pattern is similarly entrenched, and ensures the CSO doesn’t become too businesslike to the detriment of its main purpose (FE and HE). Both patterns are well meshed via the ‘virtuous circle’ business model (Funding-Investments-Income-Surpluses-Investment), devised by TT1 (‘old regime’), and being carried forward by TT2 (‘new regime’). These ‘business-like’ and ‘values and beliefs implementation’ patterns also influence the ‘sense-making’ and ‘performance measurement’ elements of the SDP model, in the manner that the CSO conducts its operations

The ‘steady progress’ pattern is another influence to the ‘creating strategic initiatives’ and setting direction and goals’ elements of the SDP model. This pattern still reflects the cautious and prudent background of TT1, which continues in the ‘new regime’ (TT2). From the above and referring to the ‘steady progress’ pattern and the ‘creating strategic initiatives’ SDP model element, it again appears clear that the CSO is precluded from any radical new directions and strategies.

The ‘environmental attuning’ pattern appears to be an intuitive aspect of what all the TMT members, most senior managers, and many other staff members do almost automatically. The very many informal communication interactions within the CSO facilitate this process. This underlying CSO behaviour pattern is a strong enhancement



of the ‘sense-making’ element of the SDP model, which also contributes to the ‘performance measurement’ element of the model.

It seems clear that the CSO has some strong underlying behaviour patterns (the six detected and explained above) that influence its SDP. These limit the freedom it has in developing strategy, particularly via the ‘creating strategic initiatives’ and ‘setting strategic direction and goals’ elements of the SDP model. But, these restrictions are not all negative; the majority appear to be reassuring guiding patterns, that help the CSO maintain a consistent steady growth, via a defensible market niche position, producing good performance measurements and financial stability.

#### 5.5.3 Self-Organisation (SO) Aspects of the SDP

Self-organisation is not a CAS characteristic that is embraced as a positive part of the SDP model, by the CSO. Self-organisation is seen as the way the TMT members perform their roles operationally, via their functional departments; but at lower levels in the CSO it is perceived, mainly by the TMT members, as being a complication, which works against the strong ‘monitoring and control’ pattern mentioned above.

At levels lower than the TMT, self-organisation occurs as a way of performing operationally and of coping with the strong bureaucratic mechanisms of the ‘monitoring and control’ pattern.

#### 5.5.4 People Factors (PF) Aspects of the SDP

As can be seen from section ‘5.4.5 CAS Facet – People Factors (PF)’, above, the two principals, TT1 (‘old regime’) and TT2 (‘new regime’) are the main strategists of the CSO. The Principal is recognised as the strategic decision maker by all staff within the CSO. Both had similar backgrounds (humble origins) and both have achieved a great deal in their careers, reflecting the ‘ambition and commitment to succeed’ part of the CSO mission statement (versions 2 & 3). However, as can be seen above (section 5.4.5),

both are very different characters, which were complementary in the ‘old regime’, and these differences influence the SDP of the CSO.

TT1 was a visionary leader, and he managed to put in place, during his 25 year tenure (1983-2008, ‘old regime’), all the main strategic aims (‘foundation stones’) he set himself for the CSO - significant assets and reserves of cash and property, based on his ‘virtuous circle’ business model; good reputation, based on excellent performance measurements and satisfied students; steady growth; TDAP; ‘University College’ name change; local development site for a new campus, and loyal committed staff. His cautious and prudent, yet ambitious and committed character traits, based on his background, provided the basis to the direction and overall strategies of the CSO, and had put it in a very good defensible position in the FE/HE environment.

TT2 is a well-organised, well-structured and professional manager, who has an encyclopaedic understanding of the CSO and its environment. His cautious, business-like, and professionalism, yet ambitious and committed character traits based on his background and long term work experience with TT1, as Vice Principal provide the basis to the direction and strategies that TT2 has and will be developing, as he consolidates the CSO’s position.

Other members of staff play roles in the SDP of the CSO, but not to the extent the TT1 has or TT2 now does. The ‘Summary of Findings’ section of this chapter follows below. It explains the linkages between all of the above sections and puts them into perspective.

## 5.6 Summary of Findings

The findings here in this chapter provides the evidence, which help explain how and why CAS theories, as seen via the CAS lens, enlighten the strategy development process in a small UK university, the CSO. These findings, related to the accepted theories,

encapsulated in the theoretical and conceptual frameworks, are discussed in chapter 6, below.

#### 5.6.1 External and Internal Environment of the Case Study Organisation

The data and analysis has shown that the CSO's TMT members sense that their operational environment is becoming increasingly more complex. The complexities are caused by the increasing interactions of UK demographic trends, international market demand and supply, increased competition from existing and new areas, changes and uncertainties in government priorities and the impact that has on funding streams, students' expectations, and employers' needs. Some of these operating environmental influencing factors have had positive consequences for the CSO in the past, but is felt that there are now more uncertainties developing.

It is clear from the data that the five year study of the CSO (2004-2010) has spanned a significant period of change for the organisation. The CSO has moved from a 25 year period of relative stability and steady growth, characterised as 'Positioning', (termed the 'old regime') under the tenure of TT1, via a two year 'interim' period as TT1 stepped aside and TT2 prepared for a change towards a 'new regime', to the beginning of a period of 'Consolidation' under the Principalship of TT2 (the 'new regime'). The 'positioning' period of the CSO includes the significant milestones; of allying with the LUKU, becoming HE designated, awarded TDAP, and the name change approved to include 'University College'. The 'consolidation' period has been signalled by a general continuation of direction and strategy, adjustment of the management team, the imminent moves to a new local university campus (under development), and its own CSO degree courses being offered. In effect the external and internal environments have both entered a more dynamic period with more complexity.

### 5.6.2 The Case Study Organisation's Strategy Development Process

With regard to the strategy development process of the CSO, the SDP model provides a good picture of the elements of the process and their combination. In general there has been little change in the SDP and the content during the period under study. There is no formal SDP, the process elements melding together via very many informal discussions, mainly involving the Principal (TT1 or TT2, depending on the period reviewed), a core team of two or three trusted advisors, and the whole TMT. The Principal (TT1 and TT2) is recognised as the main 'strategist' and strategic decision-maker, by all within the CSO. Using the SDP Diagnostic Tool (Dyson et al. 2007), it is clear that there is room for improvement in all elements of the SDP model. The sensing and sense-making' appears to be the most highly developed element of the CSO's SDP, allowing flexible and responsive adjustments to the organisation and its operations, to maintain its market niche position.

### 5.6.3 Complex Adaptive Systems (CAS) insights to the CSO's SDP

By viewing the CSO via the CAS lens a different perspective and richer insights of the organisation and its SDP are possible. It provides a facilitating structure to link the wider aspects of the organisation's behaviour to the SDP, and thereby indicating some significant influencers on the process, some of which can be limiting, and some facilitating the process.

#### 5.6.3.1 'Continuous Varying Interaction' (CVI) insights to the SDP

In the case of the CSO, the data shows that there is a great deal of constant informal interaction, with information flows among the TMT members and up towards the TMT via the hierarchy, being the strongest. This relates to the very good 'sensing' and 'sense-making' element of the CSO's SDP. Weaker information flows and interaction takes

place involving the non-TMT staff, and particularly lower than the senior management level. This hampers the improved sensing the TMT appears to need for the increased dynamic complexity of the organisation and its environment, and the creation of strategic initiatives, that could increase revenue streams and help reduce costs. The CVI facet of the lens exposes the imbalance in interaction and information flows in the organisation, which could have potential impacts on the strategy development processes.

#### 5.6.3.2 Patterns Development (PD) insights to the SDP

The continuous interaction of people has produced six main interlinked patterns that have been detected in the CSO by using the CAS lens; ‘monitoring and control’, ‘mutual support’, ‘environmental attuning’, ‘steady progress’, ‘business-like’, and ‘values and beliefs implementation’. All have significant benefits to the organisations, as detailed above (section 5.3 CAS Facet – Patterns Development – PD), but the former two (‘monitoring and control’ and ‘mutual support’ also have some negative aspects that could hamper future development of the CSO. The ‘monitoring and control’ pattern appears to limit creative initiatives and ideas generation, because there is such good asset utilisation (a benefit), that there is little ‘slack’ for reflection and creativity, particularly with non-TMT staff. Related to this is the ‘mutual support’ pattern, which diverts creativity into coping measures to counter the negative aspects of the ‘monitoring and control’ pattern among the non-TMT staff. Understanding these patterns of behaviour gives insights to the potential future issue areas developing in the CSO, which may need monitoring and controlling, or resolution by the TMT, in due course.

#### 5.6.3.3 Self-Organisational (SO) insights to the SDP

Self-organisation is a characteristic of CAS and has been studied via the SO facet of the CAS lens. From the data it seems evident that self-organisation is occurring and made use of at TMT levels, but is hampered at non-TMT levels. It is hampered by some

elements of the ‘monitoring and control’ pattern, mentioned above (“*lots of little enforceable rules*”, SM15 quote), which is frustrating to many in the CSO. This has been exacerbated by the Hospitality culture, which is uncomfortable for some members of staff. The SO facet of the CAS lens shows areas where there are potential threats and opportunities to the smooth and fruitful running of the SDP.

#### 5.6.3.4 People Factors (PF) insights to the SDP

People develop strategy; and that means people factors (as detailed in the CAS lens) have a significant influence on the SDP (and other aspects of organisational behaviour).

Referring to the CSO, the main influence on the SDP are the personal characteristics of the Principals (TT1 and TT2), based on their backgrounds and experiences, because the Principal is the main strategist. TT1’s humble Presbyterian Scottish background seems to have developed in him an innate prudence and shrewdness, particularly with money, which has clearly affected the financial and funding aspects of the CSO in a very positive manner (no debt, significant reserves of cash and property, and very tight financial controls). In a similar manner, his Hospitality work experience (as chef at the Dorchester and Ritz Hotels), has given him a ‘can-do’ ability, and very rapid and responsive reactions to changes in the organisation and environment, which has also influenced the selection of his team, his leadership style, his expectations of the management style of his staff, organisational structure, and the ‘loose/tight’ management style of most of the managers of the CSO. These background and work experience traits of prudence, shrewdness and rapid response, have complemented his visionary leadership capabilities, all of which have contributed towards the steady progressive development of the CSO, during the ‘positioning’ phase of the organisation. Similarly, TT2’s background of humble northern city origins, university education and FE teaching work experience have developed in him a cautiousness and need for thorough awareness, via monitoring and control. This seems to have given him very good professional management capabilities

in the constantly changing UK non-compulsory educational environment (FE and HE). Because he has worked closely with TT1 for 20 years (1988 – 2008) at the CSO, he has played a significant role in, and experienced all the developmental changes of, the organisation during the ‘positioning’ phase. TT2 was intimately involved with TT1 in the strategy development and all the significant strategic decisions of the CSO. He was, because of this, ideally suited to succeed TT1 as Principal, to build on his success and to take the organisation on to the next phase (‘consolidation’).

#### 5.6.3.5 CAS History insights to the SDP

Referring to the conceptual framework above (chapter 3 and section 6.0 above), which highlighted the areas where CAS characteristics complement the elements of the SDP model. It seems clear that the ‘People Factor’ characteristic of ‘CAS and people have histories, which limit and offer opportunities’ (PF), is the main factor, which significantly enlightens the SDP, in this study of the CSO. This is both to do with the specific people characteristics of TT1 and TT2, and also the history of the CAS and the significant strategic decisions made previously, during its development in the ‘positioning’ phase of the CSO. Some previous strategic decisions may ‘lock-in’ or ‘lock-out’ particular strategic decision choices in future situations. The following significant strategic decisions that TT1 and his TMT have made, and some potential limiters of each, are mentioned briefly here, as examples:

- Run operations very efficiently (‘business-like’ pattern), to generate surpluses, to implement the ‘virtuous circle’ business model.
  - ‘positive’ limiter – only affordable projects are initiated, reducing risk.
  - ‘negative’ limiter – some ‘good’ projects may be rejected, affecting innovation.

- Ensure all operations are seen as being excellent, to build up a reputation, and gain excellent quality standards recognised by all the appropriate awarding bodies (for example, HEFCE, OFSTED, QAA)
  - ‘positive’ limiter – CSO focused on hitting quality targets, and evidencing this to stakeholders.
  - ‘negative’ limiter – bureaucratic aspects detract CSO from creativity, and diverting resources from operations to evidencing.
- Incur no debt and build up reserves, to provide independence and allow speedy response to any opportunities that arise.
  - ‘positive’ limiter - excellent credit rating, sets high expectations, and ensures only business-like activities will be considered.
  - ‘negative’ limiter – limits investment/expenditure choices and timings.
- Acquire an alliance with a LUKU, to be able to offer HE degrees with a high reputation and international recognition, and also to ward off any acquisitive approaches. (LUKU agreement 1995, extended periodically until 2014, next review)
  - ‘positive’ limiter – academic reputation linked to LUKU.
  - ‘negative’ limiter – restricts choice of courses and potential target markets.
- Shift the centre of gravity of operations towards HE designation (2002), to gain more independence, and gain a step towards university status.
  - ‘positive’ limiter – resources and facilities need to be balanced between FE and HE to compete properly.
  - ‘negative’ limiter – moves specialist FE college into more competitive markets and complicates promotional messages.



- Maintenance of its FE presence, to maintain its international market niche reputation, keeping options open, and create a progression path for its students from FE to HE.
  - ‘positive’ limiter – resources for both FE (expensive facilities) and HE need maintaining.
  - ‘negative’ limiter – stakeholder confusion of CSO’s market position needs constant clarification.
- Acquire a development site for its own student accommodation, to attract international students, and provide an additional revenues stream. Fund this from surpluses (no debt).
  - ‘positive’ limiter – excellent occupancy rate needed.
  - ‘negative’ limiter – significant resources unavailable for other projects.
- Based on the above, steady progress towards TDAP (awarded 2007), to offer own specialist degrees in market niche courses.
  - ‘positive’ limiter – resources needed to rapidly develop, promote and deliver courses.
  - ‘negative’ limiter – reputation of own degree limited and LUKU relationship affected.
- Based on TDAP, name change to include ‘university college’ awarded (2007).
  - ‘positive’ limiter – sets ‘university’ level expectations among stakeholders.
  - ‘negative’ limiter – positions CSO in more competitive market.
- Last part of local freehold property acquired, funded from reserves, to allow development of new, larger city centre campus, to increase number of students, and opportunities for new revenue streams (for example, conference facilities, events, flexible summer courses).

- ‘positive’ limiter – significant resources focused on new project requiring excellent asset utilisation.
- ‘negative’ limiter – limited resources available for other projects.

It seems clear that previous CSO strategic decisions tend to lock-in and lock-out strategic options and choice of options available.

#### 5.6.4 Conclusions of the Findings

Studying the CSO’s SDP, via the SDP model, provides a comprehensive understanding of the process. By complementing the SDP model with the CAS lens, it seems clear that significant influencers can be detected that could limit or facilitate the process. In this way the CAS lens and the conceptual framework enlightens and enriches the understanding of the SDP of the CSO.

The SDP model has clearly shown that the CSO develops its strategy in an informal, emergent manner, and is only formally articulated for communication to external stakeholders. The CAS lens has shown how and why the process developed in the CSO and the early part of this chapter has shown the main examples of the content of its overall strategy. Use of the CAS lens has allowed the researcher to look deeper into the organisation and detect causes for the emergent process. The causes are included in the people factors of the key players involved in the process, how they spontaneously self-organise, the manner in which they interact, and the behaviour patterns that develop. This deeper insight gives a pre-emergent perspective on the SDP. To some degree it is possible to broadly predict some aspects of the emergent manner of the process, and also some elements of the strategy content. In effect, in this case study example, the CAS lens has provided a view of a ‘latent strategy development process’, which is pre-emergent. A discussion and explanation of the findings of this research project, in the

context of the theoretical and conceptual frameworks, follows in the next chapter, to show the contribution of this research.

## **Chapter 6**

### **Discussion**

#### **6.0 The Empirical Research and Established Theory**

This chapter compares and contrasts the information found via the analysis of the empirical data from the case study (see Chapter 5 – Findings) with the theory and knowledge available in the public domain via the literature (see Chapter 2 – Literature Review). It explains the utility of the SDP model for analysing strategy development, and it shows the additional information that could be made available by making use of CAS theory to explain the SDP in the case study. First, the findings of the SDP in the CSO are discussed, via the SDP model, the implications of studying the SDP via the four-faceted CAS lens are next explained, followed by discussion on the overall validity of the conceptual framework (see Chapter 3) for this research, comparing it with the established theory.

#### **6.1 Strategy Development Process in the CSO**

(Please refer to Appendix 1 for an explanatory diagram of the SDP model.)

The study of the strategy development of universities, as examples of organisations, is not unusual, as their organisational environment has become more business-like in recent years. For example, (Price and Kennie, 1997) studied strategic leadership challenges in HEIs, and (Bolden et al. 2008) developed a multi-level leadership model to ease the tensions in HEIs. Garrod and MacFarlane (2007) and Gourley (2007) focused on ‘Duals’, colleges and universities that operate both in the FE and HE sectors, as does the CSO of this research project. In a similar manner, the use of lenses to study the strategy development of a university also has precedents. Jarzabkowski and Wilson (2002), viewed Warwick University through “a combination of two broad theoretical lenses,

strategy as practice (SAP) and strategy as process” (ibid) to provide useful insights to formulating and implementing strategy. Their main findings were that the strategy development process involved an “interplay of localised routines and patterns of actions within an organisational context...where there were four key areas: direction-setting, monitoring and control, the allocation of resources, and processes of interaction” (ibid). Dyson (2004) also used Warwick University as a case study as part of the development of their SDP model. His approach was more focused on the systemic aspects of the structures and processes of strategy development, in contrast to Jarzabkowski and Wilson (2002), for which processes were part of their analysis of peoples’ localised social interactions and routines. There follows next a discussion of the essential elements of the SDP model and the findings of the study of the CSO, from the first part of the analysis, via the perspective of the SDP model.

#### 6.1.1 SDP - Direction Setting

Studying the CSO via the direction setting element of the SDP model, it becomes clear that the organisation does have a very clear sense of direction and purpose represented by the CSO’s ‘virtuous circle’ business model and the mission statement combined. This represents the intentional ‘desired direction’ of the CSO as explained by Mintzberg et al. (2003) and Warren (2005), it is also the CSO’s ‘realised direction’, as no significant deviation has been detected Johnson (1987). The CSO’s ‘virtuous circle’, however, is not explicit. It is not published, as is the CSO’s mission statement. It is implied by the “coherent set of individual discrete actions in support of a system of goals” (Eden and Ackermann, 1998), and is a powerful driving force of the CSO, as perceived by most people within the organisation. The CSO’s mission statement, however, is explicit, generally published, mainly for external stakeholders, and explains the CSO’s values and beliefs, which are the softer aspects upon which the operations of the CSO are based.

However, these softer aspects are not perceived by most within the CSO as the main driving force of the organisation.

The direction setting of the CSO is decided upon by the Principal, as the recognised main strategist of the CSO (was TT1, is now TT2), and has been broadly the same for more than 15 years. However, the changes that have taken place (HE designation instead of FE, acquisition of TDAP, and change of name to include ‘university’, for example) have resulted from very good ‘sense-making’ inputs that have been channelled very directly and quickly to the Principal. In the SDP model, the ‘sense-making’ element connects to ‘direction setting and goals’ element, via the ‘rehearsing strategy’ and ‘performance measurement’ elements. There is not a direct link in the SDP model between the ‘sense-making’ and the ‘direction setting and goals’ elements. In the CSO there appears to be a direct connection between the ‘sense-making’ element (incorporating ‘exploring internal and external environments’) and the ‘direction setting and goals’ element, and not via any ‘rehearsing strategy’ element. Or, it may be that the ‘rehearsing strategy’ element in the linkage is negligible, or so fast and intuitive that it is undetectable by the CSO strategists, the Principal and his close knit TMT colleagues. This intuitive element is perceived by the researcher as an important part of the CSO’s strategy team’s capabilities and activities, and is discussed in more detail below (6.1.3 SDP Sense-Making).

#### 6.1.2 SDP – Performance Measurement

Performance measurement is a very important part of the SDP for the CSO and there are direct links between the design and management of the performance measurement systems and processes and ‘direction-setting’, because their chief architect and manager is the Principal (TT2), a professional, well-organised and control-orientated manager. This ensures that whatever TT2 needs to measure, is measured, and conversely what does not need to be measured, is not measured. TT2 was also the chief architect and manager

of the CSO's performance management system when Vice Principal, under the 'old regime', where TT1 was the Principal, who was more visionary and less concerned with tight controls, which he delegated. This part of the SDP process falls closely in line with the explanation of the 'performance measurement' essential element of the SDP model "Designing a performance measurement system aligned to the strategic direction" (Dyson et al. 2007). The alignment to strategic direction of the CSO is narrowly focused on the 'virtuous circle' and harder aspects of the strategic direction: finance, facilities, staff and students, and less on the softer aspects as articulated in the mission statement; such as establishing a learning community, and meeting the needs of society at large. Tapinos et al. (2005a) in their study of HEIs say "The need to align the performance measurement systems with the strategy is at the core of the more integrated performance measurement methodology". It is clear that the performance measurement system provides a significant part of the mechanisms by which the CSO is tightly managed. This is similar to the findings of Jarzabkowski and Wilson (2002), where they found "strong central control tendencies" in the TMT of Warwick University. The performance measurement system is a main part of the 'sense-making' of the CSO and is in line with the 'exploring the internal environment' part of the SDP model's 'sense-making' element.

### 6.1.3 SDP Sense-Making

The sense-making part of the CSO's SDP is very well developed, as mentioned above (6.1.1) and links directly to the direction setting element, via the Principal (TT2). There are two main groupings of parts to the CSO's sense-making element; the group that refers to 'resources', 'managing the organisation' and 'implementing strategic change', all of which are very well monitored and controlled by the continual performance measurement (6.1.2); and the group that refers to 'uncontrolled inputs' and 'exploring internal and external environments', which are very well supplied with information from

very extensive, active and dynamic networks of contacts, with a wide variety of stakeholders that the CSO collectively has. There is a balance between these two groups, which provides a very good continuous flow of information to the TMT.

The former group, supplied by the performance measurements, provides the tight monitoring and control of the important, harder things to the CSO, finance, facilities, staff requirements and capabilities, and student numbers. The sensing of these aspects of the CSO is important to ensuring that the right number of students, on the appropriate courses, is recruited, so that revenues are up to target, costs are under control, a surplus is generated, and investment in staff and facilities can be made. In this way the CSO's 'virtuous circle' business model is maintained, and the 'directions setting and goals' element is directly linked to the 'sense-making' element of the SDP model. This group of parts of the sense-making element together with the informal network of internal contacts also provides aspects of learning within the organisation, where changes and improvements can be made to the operational systems and processes. This same group appears to take into account the analysis aspects of making sense of the environment, where there is logical and rational thinking. The learning aspect mentioned here relates to the processes explained by Nonaka (1991) and Stacey (2001), where the latter explains the complex responsive processes occurring in the organisation (CAS) that facilitate the organisational learning and knowledge creation needed for progress and development. Similarly, Price (1995) says that, via learning, the organisation can be aware of where it is, where it wants to go and how it may want to get there, in his explanation of "meme", the blueprint of organisational development (similar to 'gene' in biology).

The latter group of element parts, 'uncontrolled inputs' and 'exploring the external environment' is also a highly developed CSO capability. It relies upon the long established relationships between various members of the TMT and some senior managers, and their professional and personal networks of external contacts within and



around the FE and HE environment and within the Hospitality and international sectors in which the CSO operates. From the empirical work, interviews, observation, rumours and grapevine (ORG) data, it seems clear that the intuition of the TMT members and some senior managers also plays a role in which items of interest to focus upon and the relevance and importance to be given to information gathered via their social network contacts.

Dyson et al. (2007) refers to the sense-making element as a way of assessing the uncertainties, being aware of risks, and resistance to change. They are also wary of management intuition in strategy development “key decision-makers may well prefer the ‘hunch and hope’ approach augmented by a search for supporting evidence” (ibid). But, they also recognise there is another balance to be struck, between thorough testing and timely actions, which may become more difficult in ever increasingly dynamic environments, thereby recognising the possible need for senior management intuition at times. Others see sense-making, perhaps, in a more balanced way, where opportunities and threats, positives and negatives, can be sensed by strategists. Mintzberg (1976) in his discussion of planning on the left side (of the brain) and managing on the right (side of the brain) summarises this balance well "No management process is more demanding of holistic, relational, gestalt thinking than the formulation of a creative, integrated strategy to deal with a complex intertwined environment". Later he says that the strategy development process needs both rationality and intuition, where intuition is subconscious, quick, unemotional, unbiased and is part of all decisions and based on a deep understanding; “strategy development is synthesis, strategic planning is analysis” (Mintzberg, 1994). Similarly, Isenberg (1984) considers intuition as an integral part of decision making and in balance with rational thinking. Khatri and Ng (2000) concur; “intuition is often used, particularly in complex and turbulent environments”.

#### 6.1.4 SDP – Creating Strategic Initiatives

There was relatively little empirical data gathered from within the CSO about creating strategic initiatives, reflecting the perception by the researcher, via the empirical data, that novel strategic initiatives are rarely apparent. There also appears to be a clear difference between the TMT and non-TMT staff members. The TMT members want new ideas, particularly to increase revenues, revenue streams, and control costs in the current difficult economic climate, because of the significant changes in the funding sources and flows currently taking place, and would welcome suggestions and initiatives from non-TMT staff. However, at the same time, the CSO monitoring and controls are very tight, which with the workload does not allow time and freedom for non-TMT staff to develop ideas and initiatives. The empirical evidence shows that the CSO control culture stifles creativity. The non-TMT staff have fear that coming forward with strategic initiatives will either require their own further inputs to champion the initiative, when they are already busy to capacity, or the initiative will be adopted with no recognition, or ignored because a TMT member did not initiate it. It appears clear that this ‘creating strategic initiatives’ element of the SDP model is weak within the CSO, despite interconnections with ‘direction setting’, ‘learning from performance’ and ‘exploration of the internal and external environments’. It is possible that the TMT is not learning from the lack of response from non-TMT staff in coming forward with creative initiatives, and may not be aware of the control culture stifling creativity. Ahmed (1998) explains that “innovation requires an organisational culture which nurtures innovation and is conducive to creativity”; and Dewett (2004) notes that “employees willingness to take risks is an important antecedent of creative effort”. In the CSO, there appears not to be an environment conducive to creativity and innovation, mainly because of the control culture, very tight monitoring and control, very good utilisation of resources (including

people), and the 'fear factor' where many staff members feel threatened by the numerous little enforceable rules.

#### 6.1.5 SDP – Evaluating Options

This element of the SDP process in the CSO is not done by any formalised or clearly articulated method other than discussion among the small TMT strategy development group, which includes the Principal as the main strategist. It seems that great use is made of a general professional awareness of the educational, market sectors, and international aspects of the environment and the operations of the CSO, based on good awareness via long term relationships with stakeholders, a large store of combined TMT knowledge and experience, and intuition. This is in line with Mintzberg's (1978) thinking, where the evaluation of options and strategic decision making blends seamlessly within an overall process, "There is perhaps no process in organizations that is more demanding of human cognition than strategy formation. Every strategy-maker faces an impossible overload of information (much of it soft); as a result he can have no optimal process to follow."

More recently Khatri and Ng (2000) see a balance is needed between the rational thinking and intuition of the main strategists as their organisations become more complex and their environments become more turbulent. Their view is that the intuition part is complex, not emotional, nor biased, and based on deep understanding (ibid). There are two process inputs to the 'evaluating options' element; 'creating strategic initiatives' (6.1.4) and the 'exploring the internal and external environments' part of the 'sense-making' element (6.1.3). Referring to these interconnections, the former is limited within the CSO, as mentioned above, possibly having a negative influence on strategy development, and the latter is very well developed, having a very positive influence on strategy development, as discussed above (6.1.3). It may well be that this balance suits the CSO, because it has worked well for the organisation for almost two decades (1993 CSO incorporation – 2010).

From the above, it may be reasonable to assume that if the control culture within the CSO was more relaxed and more accepting of strategic initiatives, there would be more strategic initiatives to evaluate. This would possibly require a more formalised evaluation process, which could be perceived by the TMT as being an unnecessary layer of administration, reducing the good flexibility and responsiveness of the CSO, as evidenced from the empirical data.

#### 6.1.6 SDP – Rehearsing Strategy

There has been no formal strategy rehearsal element in the CSO's strategy development process perceived. The closest to formal strategy rehearsal in the CSO is pilot testing and market trials of educational courses to particular customer segments, but these commit resources, albeit minimal and where the down-side costs are very clearly known beforehand, to reduce risk. These tests and trials, however, involve exposure to the market environment, including customers and competitors where real benefits and risks are likely. These tests and trials require TMT decisions, support and authorisation, which are based on thorough cost/benefit analyses, and are then under the scrutiny of the CSO's performance measurement system. This 'quantitative' approach to strategy rehearsal is the only aspect of this SDP element explicitly mentioned by interviewees. It may well be that a rehearsal of a strategic initiative via a virtual model or simulation, as suggested by the SDP model (Dyson et al. 2007), is over-elaborate and too time and resource consuming for the CSO in its fast moving environment. Cilliers (2000a) says that models and simulation are really only of practical use for 'complicated' problems, where relationship rules are known, and not of practical use for 'complex' problems involving non-linear relationships, where such rules are unknown or indefinable. Similarly, Morecroft and Robinson (2005) find in their comparison of discrete event simulation and system dynamics recommend the latter for dynamically complex problems that need a holistic approach. Richardson and Cilliers (2001) are concerned that 'bottom up

computer simulation' (BUCS) could lead to a 'new reductionism' not favoured for holistic approaches. These approaches are possibly beyond the means of most SMEs, such as the CSO, because of limited resources and of the level of sophistication of the SDP.

The use of 'scenarios' as explained by van der Heijden (1996), and similar qualitative approaches, may be of more practical use to SMEs or other organisations unwilling to make use of more sophisticated approaches as mentioned above. In some organisations, such as the CSO, qualitative approaches may be partially and intuitively employed already. In this connection, an informal rehearsing of strategy development has been perceived via the 'virtuous circle' business model. It took some time, discussion and reflection to identify this informal rehearsal of strategy. One important aspect of van der Heijden's (ibid) explanation of 'scenarios' involves the concept of the 'business idea', which is "the organisation's mental model of the forces behind its current and future success". The CSO's 'virtuous circle' business model appears to be its 'business idea', to which it refers when informally rehearsing strategy development, via the numerous informal discussions, as evidenced by the following quotes:

*"Ideas can come from anywhere; then channelled via the structure and hierarchy into the discussion, informally." (TT3 quote)*

*"The CSO process is (now more) top down and bottom up options-generation and finding out what is possible" (TT3 quote).*

*"We try to make sure we keep the vision (virtuous circle) because that is the long-term target" (TT3 quote)*

*"TT1 walks around the problem 20 times" (TT5 quote)*

These suggest that the CSO's main strategist (TT1) had his mental model ('virtuous circle') representing the 'business idea', that was accepted by all the TMT, by which the organisation referred to, and rehearsed strategy scenarios via informal discussion. This is also supported somewhat by the explanation of the 'rehearsing strategy' essential

element of the SDP model (Dyson et al., 2007), where mention is made of a “virtual feedback process that incorporates learning from virtual performance”. This explanation does not explicitly include only quantitative approaches, but also implicitly includes qualitative approaches as well.

It appears that CSO’s TMT has struck a balance “between thorough testing and timely actions” (Dyson et al. 2007), which is tilted towards the latter. This is probably because of their lack of knowledge and experience with virtual modelling and simulation, and because their flexible and responsive approach has always worked well in the past. The TMT members perceive that no change is required in this balance. The CSO’s approach is also in line with Senge’s (1990) view that “We learn best from experience but we never directly experience the consequences of many of our most important decisions. The most critical decisions made in organisations have system-wide (organisational) consequences that stretch over years or decades.” The CSO TMT is comfortable with its informal approach because the TMT members have all, but one, been working in the CSO for more than ten years. (The exception is TT9, who was well known to TT2, is also experienced in the FE/HE sector and was previously a senior manager with the CSO.) With this long term knowledge, good team work and combined experience of the TMT it is reasonable to assume that the CSO TMT, in this case, does experience some of the long term consequences of their joint strategic decisions, which have been favourable.

#### 6.1.7 SDP – Selecting and Enacting Strategy

The CSO only makes changes that are very close to their current way of operating, and no long-term drift from the desired direction has been detected (mentioned in 6.1.1 Direction Setting), a possibility implied by Mintzberg and Waters (1985) and Mintzberg (1987a). The CSO is good at what it does, as evidenced by the performance measures,

and it keeps very close to its core strengths. This closely matches Peters and Waterman (1982) “sticking to the knitting” property of excellent companies. The decision making and implementation of strategic decisions is also relatively quickly performed within the CSO, when actions are required quickly, as evidenced by the rapid name change of the CSO, to include the words ‘university college’, following the award of TDAP. In this manner the CSO successfully combines their strategy making and strategy doing in a seamless manner as recognised by Noble (1999) “strategy formulation and implementation are intertwined processes with success in both necessary for superior firm performance”. The inputs to this element are the ‘learning from current performance measurement’ part of the ‘performance measurement’ element and the ‘resources’ part of the ‘sense-making’ element. Both of these are very well developed in the CSO, as they are concerned with the harder aspects of finance, budgets, costs and student numbers, which form the ‘virtuous circle’ business model (6.1.1).

#### 6.1.8 SDP – Summary and Lessons Learned

The above discussion has been based on the findings from the first part of the analysis of the empirical data, via the perspective of the SDP model and has been compared with the established theory and knowledge in the public domain. The SDP model of the strategy development process, is up-to-date, comprises the main component parts, and shows the interconnections of the parts, describing and prescribing the overall process. By using the model to analyse the strategy development of a case study organisation over a long period of time, it is clear that much of the process is exposed for investigation. The main points of divergence between the prescribed process, via the SDP model, and the CSO’s process are the ‘rehearsing strategy’ element and the apparent direct connection between the ‘direction setting and goals’ element and the ‘sense-making’ element, as discussed above.

With regard to the former, the ‘rehearsing strategy’ element, it may well be that this is of less utility to small organisations with fewer resources, or those with small strategy teams. Fletcher and Harris (2002) found from their empirical research that SMEs used more emergent processes in strategy development than planned approaches, and that SMEs with planned approaches only were associated with slow growth, while a combination of planned and emergent approaches generated faster growth. They concluded "The nature of strategy formation in entrepreneurial firms (such as SMEs) is subtle, complex and multi-faceted" (ibid). Similarly, Stonehouse and Pemberton (2002) from their empirical research of SMEs concluded “there are strong indications of business planning among the organisations surveyed, (but) there is less evidence of strategic thinking, except among larger businesses”. They found that the business planning relied mostly on financial analysis, using simple tools, rather than sophisticated methods, which is the case with the CSO, a relatively small HEI that could be considered an SME. The SDP model might be seen by SMEs as too sophisticated and over elaborate, particularly the ‘rehearsing strategy’ element, possibly requiring sophisticated modelling and simulation methods. In similar empirical research, Knott (2008) found that most strategy teams used relatively simple and well-known tools (SWOT and Stakeholder Analysis, for example) and were sceptical of complicated and new methods dismissed as “management fads”.

In the CSO, which is a small organisation with a small team of strategists, there is little strategic planning, except via the strong performance measurement, including thorough financial and other quantitative analysis of the hard ‘virtuous circle’ aspects. There is, also some level of strategic thinking, which appears to be based on the combined knowledge, experience and intuition of the TMT, supplied by thorough performance measurement and environmental awareness.



## 6.2 Implications of Studying the Strategy Development Process via the CAS Lens

(Please refer to Appendix 4 for an explanatory diagram of the CAS lens.)

This part of the discussion of the findings is based on the second part of the analysis of the empirical data, via the four faceted CAS lens where the CSO is seen as a complex adaptive system. It shows that rich and complementary information about the strategy development process can be detected from this perspective. First an overview of the utility of the CAS lens approach is made, followed by a focus via the four facets of the CAS lens (continuous varying interaction – CVI; patterns development – PD; self-organisation – SO; and people factors – PF). It concludes by comparing and contrasting some of the aspects of both of the approaches, SDP model and CAS lens, to study the CSO, and the potential implications for study of other organisations.

### 6.2.1 CAS – Overview

Viewing the CSO as a CAS focuses on the dynamic processes of people interactions (CVI), patterns of behaviour (PD), the people characteristics (PF), and self-organisation (SO), in terms of how the organisation interconnects internally and with its environment, based on the background and experience of the people involved, rather than on the non-personalised, systemic elements and the interconnections of those elements, as viewed by the SDP model. In this manner the CAS lens could be seen as complementing the SDP model in providing a people orientated, organisation specific perspective on how strategy is developed. Veblen (1898) noted, some time ago, that all modern sciences are evolutionary, referred to in complexity theory terms as emergent, because economics (which then included organisational strategy) is an activity done by people (reproduced in Boulton, 2010). Mitleton-Kelly (2003a) says that “emergent properties arise with interactions (of people) and emergence is a process that creates a new order”. This combination of systemic characteristics, detectable via the SDP model, and the people

orientated and organisation specific perspectives, detectable via the CAS lens, mentioned above is similar to the views of Eden and Ackermann (1998). They suggest that there are two avenues by which to detect the strategizing - 1) detect structural properties and imbedded routines (both formal and informal), and 2) detect the wisdom and belief system (set of values, theories in use etc.) of the strategists. However, they do not go as far as suggesting a combination of these two avenues, or exploring the use of complexity theories or CAS theory to understand the imbedded routines and belief systems of the organisation. The use of the CAS lens to view the CSO has allowed a deeper insight to the organisational behavioural aspects of its SDP, than simply using the SDP model perspective. In this way, using the SDP model and the CAS lens together, the two avenues of Eden and Ackermann (ibid) mentioned above can be combined. These deeper insights are discussed in more detail below, via the CAS lens facets.

#### 6.2.2 CAS – Continuous Varying Interactions

From the empirical data it is clear that the CSO relies on a great deal of informal interactions that are continuous for its SDP. This interaction is via very many informal and small group meetings and discussions between TMT members and some senior managers. It was detected that the vertical information flows upwards through the hierarchy to the TMT were the strongest, and that the corresponding downward flows of communication from the TMT to other levels, particularly lower than senior management levels, were weaker. This serves the TMT's environmental and organisation performance measurement very well, but harnessing creativity and innovation less well. The horizontal communication flows between the functional areas at non-TMT level were the weakest. Studying the people interactions allowed detection of these communications flows and provided a qualitative aspect to the interconnections in addition to identifying the interconnections in the CSO as a CAS.

Handy (1993) sees the roles and interactions of people in the organisation as very important in understanding organisations, particularly the relationships, as these reflect the quality of the communication. Hodgkinson et al. (2006) in their empirical research on strategy workshops see these workshop opportunities for top manager interactions as useful in breaking down silos of knowledge by cutting across functional areas in the organisation in the development of strategy. Sotirin and Tyrell (1998) go further in saying that organisational communication is “constitutive of subjects, worlds and possibilities” in their explanation of how organisations learn. More focused on the strategy development process, the recent SAP stream of literature as represented by Whittington (1996 and 2002), Jarzabkowski et al. (2007) and Regner (2008), see people communication and people interactions as core to their perspective on strategizing, which is their view on the process of strategy development. Only Campbell-Hunt (2007) has been found in the literature that compares SAP to CAS theory, suggesting that great use could be made by SAP authors of a substantial body of (complexity and CAS) theory.

### 6.2.3 CAS – Patterns Development

Weaver (1948) was one of the first academic authors to consider complexity in the context of systems, where he explained that early science (physics and chemistry) had ‘problems of simplicity’, with few variables which were explained with positive rigour via statistical analysis; then additional problems were recognised of ‘disorganised complexity’, with many variables, where statistics provided some useful partial explanations. He then went on to say that science still has to cope with ‘organised complexity’, with very many variables but with some patterns of behaviour that defy statistical rigour. “These 'organised complexity' problems tend to be about the important matters affecting humankind” (ibid), referring to the social sciences. Arthur (2002) in his studies of socio-economic development in societies found that patterns could be detected with very long time scales, which showed irreversible development and were thus

evolutionary, providing threats and opportunities to which organisations needed to adapt. In a similar manner it is clear from the data that the TMT of the CSO, via its good environmental sensing, has been able to see opportunities and threats emerging and take the appropriate action to adjust the organisation. Miles et al. (1978) explained that the strategy process undertaken by the organisation can be made transparent. "We believe that the complexity of the adjustment process (to environmental changes and uncertainties) can be penetrated: by searching for patterns of behaviour in the organization. One can describe and even predict the process of organizational adaptation." (ibid). In this way the SDP and the strategy content can be detected, as explained by Mintzberg (1978) "Strategy can be defined as a pattern in a stream of decisions." However, no authors have been found that have made use of complexity or CAS theory to develop a lens, model or framework, in an effort to detect the strategy development behavioural patterns as part of the SDP.

In this research, via the PD facet of the CAS lens, there were six main behaviour patterns in the interactions detected in the CSO. These patterns were 'comprehensive monitoring and tight controls', 'mutual support', 'business-like', 'steady progress', 'environmental attuning', and 'values and beliefs implementation'.

These patterns have been explained in detail above in the Findings chapter (5.3 CAS Facet – Patterns Development). As can be seen, also found were positive and some negative aspects for the CSO in the patterns detected. The 'monitoring and control' behaviour pattern was found to be positive for performance management of the 'virtuous circle' business model aspects of the CSO, but stifled creativity and innovation in non-TMT members of staff. The 'mutual support' behaviour pattern was also positive for the TMT in terms of working together and collective responsibility, but negative for some non-TMT staff members, where the 'mutual support' was used to cope with the tight 'monitoring and control' behaviour pattern. As Mitleton-Kelly (2003a) notes, the

characteristics of CAS are not discrete, their boundaries merge and influence each other dynamically. “History and passed choices will influence current and future states and conditions for entities.” (ibid), so that positive or negative patterns provide opportunities and threats, which can influence, positively or negatively, choices in the future. The patterns discovered shed valuable light on the SDP of the CSO, and also give some insight to the strategy content and potentially provide information on the future strategies that may be developed. It is apparent from the above that recognising patterns of behaviour in a CAS is important to understanding the SDP, so it may be sensible to focus on pattern recognition and consider making use of pattern recognition computer software in future research projects of CASs.

#### 6.2.4 CAS – Self-Organisation

Several authors have found that self-organisation is a core characteristic of CASs, (Griffin et al. 1999; Stacey, 2001; Mitleton-Kelly, 2003a; Caldart and Ricart, 2004; Paarlberg and Bielefeld, 2009), as can be seen from the review of the literature (Chapter 2). From this it should be reasonable to assume that some form of self-organisation may be detectable in the CSO. Self-organisation was found at all levels within the organisation, but was found also to be limited by the tight monitoring and control within the organisation, at lower levels. Eoyang (2001), in her explanation of CASs, which she termed ‘complex human self-adaptive systems’ (CHSAS), found that within a CAS “there is a natural need to find equilibrium and 'coherence', which means system-wide patterns of behaviour, where each (person) has a shared meaning, internal tension is reduced, actions become aligned, patterns are repeated, minimum energy is dissipated and the agents/parts function in a complementary manner”. There is a continual striving for a balance between equilibrium and adaptation to external and internal changes in the organisation. It seems that the CSO has found its equilibrium, where at TMT level there is a great deal of freedom for each TMT member to develop their role and functions

within the framework of the ‘virtuous circle’ business model; and the non-TMT staff members balance their freedom they have within their job roles with performing according to the performance measures and the tight monitoring and controls. The TMT of the CSO appears to be doing what Beer (1984) was considering when he explained his viable systems model, summarised by Pickering (2004) “to construct systems that could adapt performatively to environments they could not fully control.” To some extent this also explains the loose/tight control of some areas of the organisation, as explained by Peters and Waterman (1982) in their search for characteristics of excellent companies. In the CSO the tight areas are to do with the ‘virtuous circle’ business model (student numbers, finance, facilities and staff), where extensive controls are in place and perceived to be in place by all staff; the looser areas are to do with functional and operational processes to run the organisation on a day-to-day/weekly/term/semester basis, which allow a certain amount of self-organisation at levels lower than TMT to allow flexibility and responsiveness.

#### 6.2.5 CAS – People Factors

People develop strategies, people establish, form and manage organisations; so it is reasonable to expect that the characteristics and backgrounds of people, particularly those in authority in the organisation, to be an influence on the strategy process and content. This reflects Veblen’s (1898) view that economics is an activity done by people, and the recent SAP stream of strategy development literature (Campbell-Hunt, 2007; Jarzabkowski and Whittington, 2008; and Regner, 2008; for example) mentioned above. The people factors (PF) facet of the CAS lens exposed significant findings in the SDP of the CSO and showed that the people characteristics are highly influential in the process. It is also clear in the CSO that the Principal, as the main strategist and strategic decision maker, via his background, motivation and vision, shape the strategy and the SDP of the

CSO. This is further evidenced by the subtle shifts in the strategy process and content which were detected when the Principal of the 'old regime' (TT1) stepped aside and was replaced by the new Principal (TT2). These shifts reflect the difference in people characteristics between the two Principals. However, overall the CSO's SDP has changed little. This lack of change can be explained by the long and constant teamwork between TT1 and TT2 in their SDP roles spanning 18 years (1988-2006) where consensus was the norm rather than the exception.

The subtle changes in the SDP were related to a 'positioning' phase moving towards a 'consolidation' phase. The positioning phase of the CSO ('old regime') is close to Porter's (1996) definitions of strategic positioning to create sustainable competitive advantage, which finds its roots in the military strategies of Sun Tzu's ideas (Cleary, 1988). Having achieved a good strategic position, as the CSO has, it can provide advantage for a long period of time, allowing for consolidation, which is the current phase of the CSO's development ('new regime'). This phase transition mentioned, is a normal part of the development of a CAS, which sometimes may be smooth as in the CSO, the development of VISA International (Hock, 2005), and the University of Warwick (Jarzabkowski and Wilson, 2002; Dyson, 2004) or turbulent as in the recent hostile takeover of Cadbury by Kraft, for example. Phase transition, which is a technical aspect of all complex systems and not just human social CASs, considers the point at which (relative) chaos in a system changes to a new order thereby entering a new phase of development. It is a systemic characteristic relatively easily observed in lower levels of complexity, referring to Boulding's (1956) Hierarchy of Complexity, but difficult to detect at the human social organisation level (CAS). Gladwell (2000) and Mitleton-Kelly (2003a) refer to these phase transition points in CASs as 'tipping points'. Specific tipping points in the development of the CSO, apart from the change in regimes

mentioned, have not been detected, and for this reason have not been a major discussion point in this research.

Another subtle change detected in the CSO, related to the shift from positioning to consolidation phases, was for the need for long term vision changing to professional management, to implement consolidation. Both aspects are needed in the SDP, requiring creative ideas and rationality, as explained by Mintzberg (1987), Senge (1990) and Collier et al. (2004); but the balance in the CSO changed. During the CSO's 'interim' period of phase transition, the significant weaknesses of management progression and ageing workforce, the imbalance of vertical communications flows, and improved sensing required for an increasingly dynamic and complex environment were perceived and measures put in place to remedy them.

The TMT, under the 'new regime', became slightly more balanced between FE and HE, in the sense that the dominant 'hospitality culture' and push towards HE and TDAP, under the 'old regime' as explained earlier, became less dominant. The position was achieved and in the 'new regime' the FE/HE balance restored to provide wider opportunities to expand activities in both the FE and HE fields of operations, to combat potential threats in an ever changing environment perceived. This FE/HE balance is a characteristic of 'Duals', colleges and university colleges that operate in both sectors, and is explained by Gourley (2007) and Garrod and MacFarlane (2007).

Many aspects of the CSO's SDP have remained unchanged, and these unchanged aspects are the important ones that relate to the CSO 'virtuous circle' business model. They are based on the values and beliefs systems that are common to the two main CSO strategists, TT1 and TT2. Both came from humble backgrounds and both taught in FE institutions early in their careers, so were very well aware of the issues across a broad spectrum of society. Buttriss and Wilkinson (2006) recognise the importance of four



main factors in social studies of organisations; history of prior actions, contextual conditions, beliefs and values, actors' strategies. Eden and Ackermann (1998) similarly see that there are two main avenues to follow to study strategizing; structural properties, including the formal and informal imbedded routines; and the imbedded wisdom based on the belief systems and values of the people involved. Midgley and Richardson (2007) see the value of combining both approaches in their study of systems thinking and complexity thinking to understand social situations better.

The 'virtuous circle' business model of the CSO (explained in section 5.4.5.1.1) has withstood the test of time of 17 years since incorporation (1993-2010), so there is no need perceived by the TMT to change the main direction or core strategies of the CSO. The core beliefs upon which this is based are caution, prudence, support of others, and the dislike of financial debt, which are similar to both TT1 and TT2, and reflect their similar personal backgrounds. Scott-Morgan (1994), a practicing organisational consultant devised his analytical model for studying strategy development via the informal groupings in organisations based on a triangle of motivators, enablers, and triggers, which is very people orientated. The motivators relate to people in the organisation, their objectives and motivations; the enablers relate to the key people that facilitate development (and also those problem people that hinder development); and the triggers are events in the process that are critical decision points. Peters and Waterman (1982) also found in their search for characteristics of excellent companies that 'productivity through people' was very important for enabling change, innovation and creativity.

This section focuses on how the backgrounds and histories of people, as part of social organisations affect current and future behaviour. It is closely associated with the on-going 'nature/nurture' debate among social scientists, where cause and effect are sought. This debate is not a focus of this research. It is understood that the nature/nurture

argument includes how peoples' backgrounds may influence their behaviours and approaches to problems, versus behaviours and approaches which cause peoples' backgrounds, or indeed whether one perspective influences the other. For this research the researcher has made the assumption that peoples' backgrounds, training and experiences influence current and future behaviour; and the data has been interpreted from this standpoint.

#### 6.2.6 CAS Lens and SDP Model

Distilling the above discussion so far, it is apparent that the SDP model, via its seven essential elements, does take into account the 'systemic process' aspects of the organisation as a CAS, as found via the analysis of the CSO. This is evident, because the SDP model is based on many years of development and refinement, via a basic linear feedback model incorporating monitoring and control characteristics (Tomlinson and Dyson, 1983; Dyson and Foster, 1983; Dyson, 2000). The SDP model was designed as a prescription of how strategy development could or should be done for general application to organisations, and as such is good for explaining the basic elements of strategy development and the mechanical links between the elements. However, because each organisation is unique, it is reasonable to assume that the adoption and application of the SDP model may not suit all organisations, and its use by analysts for studying organisations and their SDP may be of limited value. The people interaction factors are not taken into account in the development and design of the SDP model. In a similar manner, from the same perspective of SDP theories (see the Theoretical Framework , section 2.6), but from a different position, the SAP theories of strategy development do take into account the people interaction factors, relying entirely on these people interaction factors, for their theory development, ignoring systemic properties, but no prescriptive models have yet been developed (Whittington, 1996; Jarzabkowski, 2004 and 2005; Jarzabkowski et al. 2007; Jarzabkowski and Whittington, 2008; Regner, 2008).

It is apparent from the use of the CAS lens to understand the CSO, with regard to its SDP, that the CAS lens complements the SDP model, by taking into account the ‘people process’ aspects and context of the organisation, thereby providing a more complete and rich picture of the SDP. The ‘people process’ aspects of the SDP are detected via the CVI facet of the CAS lens, whereby the continuous and varying people interactions and relationships can be studied and made explicit. The contextual aspects of the SDP are detected via the PD, SO and PF facets of the CAS lens, and expose the people orientated, organisation specific aspects of the SDP.

Combining the two, the SDP model and the CAS lens, to complement each other, in the understanding the SDP of organisations, would not be without difficulties. Summarising the above analysis and discussion, it is possible that the SDP model may prove too elaborate and sophisticated for many organisations, particularly SMEs (Dyson et al. 2007; Stonehouse and Pemberton, 2002), being too close to planned approaches of SDP. It may also be less appropriate for dynamic and turbulent organisational environments, which are becoming the norm in many commercial and industrial sectors, where emergent approaches to SDP are more appropriate (Fletcher and Harris, 2002). Similarly, with the use of the CAS lens, there are problems, because complexity science and CAS theories are less well known, barely established, and the literature is jargon and metaphor filled (Paarlberg and Bielefeld, 2009). The challenge is to find the right combination of SDP model and CAS lens to provide benefit to academic strategists and practitioners across a broad cross section of organisation types operating in a variety of commercial and industrial sectors.

### 6.3 The Validity of the Conceptual Framework

Referring to chapter 3, the Conceptual Framework of this research, and in particular to the conceptual framework diagram, reproduced again here for convenience, it is apparent

that the study of the CSO as a CAS does show some richer aspects of its SDP than would be shown only by study via the SDP model.

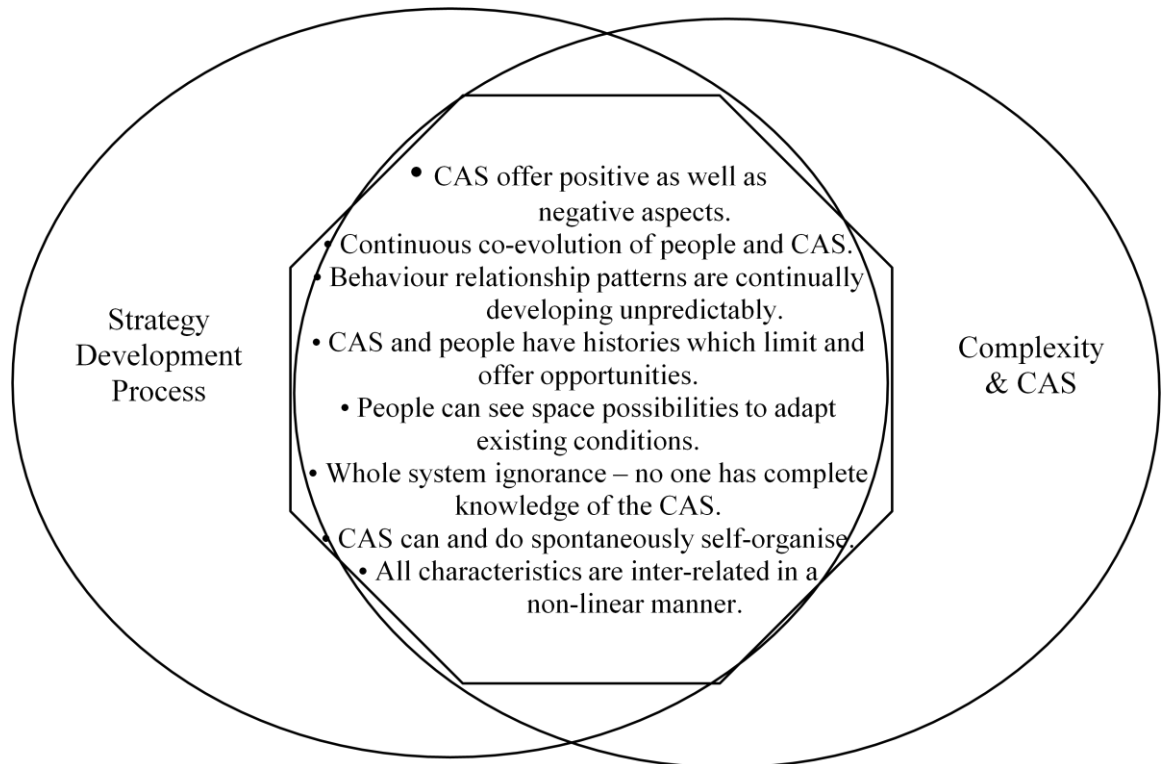


Figure 6 – Conceptual Framework

This is not surprising because this was a main purpose of the research, to look deeper into the SDP process and via a CAS perspective. It is encouraging that significant and rich extra information was detectable via this approach from the CSO. In this manner the empirical research, via a variety of data sources, goes some way towards validating the conceptual framework and the ideas it contains (Denzin and Lincoln, 2003). The discussion now considers the ‘further aspects’, that are in addition to those ‘essential elements’ of the SDP model, and which comprise the component parts of the conceptual framework.

### 6.3.1 Positive and Negative Aspects

There are clear positive aspects of complexity when considering the CSO’s SDP seen via the CVI facet, where there is good organisational sensing via the good performance

monitoring processes and good environmental sensing, and via the variety of professional and personal networking interactions. There are some negative aspects as well, seen when the communication flows within the CSO were studied. There is less communication downwards within the organisation about strategy issues and there is less communication across the functional and operational areas of the CSO, both of these negative aspects contribute towards less efficient cross-functional processes and reducing the creativity and innovation that could be available. Good interpersonal communication within an organisation, is seen as common sense and very important by most organisational authors, Handy (1993) and Hodgkinson et al (2006), for example. Similarly there are some negative aspects of the behaviour patterns with the CSO detected via the PD and SO facets of the CAS lens. The negative aspects are to do with the conflict between the tight monitoring and control of the CSO for the important parts of the 'virtuous circle' business model and how this reduces some positive possibilities of self-organisation the CSO TMT could allow to happen, and the coping measures undertaken by non-TMT staff to balance their day-to-day workloads with the monitoring and control. However, most of the behaviour patterns detected are generally positive both for the TMT and non-TMT staff, which contribute to a very well performing university college.

### 6.3.2 Continuous Co-Evolution

There have not been any significant indicators of this CAS characteristic in the CSO over the period of research other than the 'steady progress' organisational behaviour pattern detected via the PD facet of the CAS lens. The CSO has made continuous positive development in all the component parts of the 'virtuous circle' business model.

### 6.3.3 Development and Emergence of Behaviour Patterns

Six main behaviour patterns have been detected via the PD facet of the lens. These have been generally consistent over the period of the research, sufficient to provide broad predictions of future behaviour of the CSO, in that the patterns seem likely to continue. There have been subtle shifts caused by the regime change from TT1's tenure to TT2's tenure, where the balance has produced more business-like than visionary communication messages in line with the change in 'positioning' phase of the CSO under the TT1 regime, to the 'consolidation' phase of the CSO under the current Principle, TT2. Above are practical examples of the behaviour patterns perceived and their emergence as discussed by Holland (1998), Mitleton-Kelly (2003a) and Goldstein et al. (2010). These and other authors mention allowing emergent patterns to develop in the organisation, and often from bottom up the hierarchy (Kelly, 1994; Paarlberg and Bielefeld, 2009). MacIntosh and MacLean (1999) say that organisations can transform themselves via emergent patterns and King (2008) encourages allowing emergence to occur as part of the strategizing process. In the CSO the emergence and self-organisation are not encouraged by the tight monitoring and control culture. As mentioned earlier, this loose/tight control balance is one of the factors discovered by Peters and Waterman (1982) in their search for characteristics of excellent companies.

### 6.3.4 People and CAS have Histories

This aspect of CAS with regard to the CSO was found to be the most significant factor influencing the SDP, mainly because the process is so focused on the main strategist, the Principal. The personal background, training and experiences were found to be very strong influencers of the strategy process and the strategy content. It is interesting to note that the background of strategists has rarely been found discussed in the literature explicitly. The recent SAP literature stream (Jarzabkowski and Whittington, 2008;

Regner, 2008), for example, rightly identify that people develop strategy, but have not explored their backgrounds and related path dependencies as significant factors in this process, nor any other characteristics of CASs. Scott-Morgan (1994) in his focus on the informal organisation identifies key people as “enablers” and mentions their objectives as being their “motivators” and he does touch on strategising as one of the activities in which people in organisations are engaged, but does not approach this analysis from a complexity or CAS perspective. Gladwell (2000) mentions the importance of “connectors”, key people who link parts of the network of relationships in CASs. However, neither Scott-Morgan nor Gladwell consider the backgrounds of the people in their roles of strategising. When people are considered, they are referred to implicitly as components of an organisation as a CAS, where the backgrounds of both people and the organisation seem to be considered together in the literature. Buttriss and Wilkinson (2002) in their search for causal mechanisms in the understanding holistic processes in organisations found past events to be very important, and discovered four contextual factors in their analysis, the first of which was “histories of prior actions”. Similarly, from the path dependency literature, prior decisions limit and open up possibilities in future decisions (Greener, 2002). Snowden and Boone (2007) in their analysis of complex systems identify six characteristics, one of which is that “system history determines future evolution, and is irreversible”. From the past work experience of the researcher, it has been observed that the background of the strategist in many organisations has played a significant role in both the strategy process and the strategy content developed.

#### 6.3.5 People and (Space) Possibilities

This is to do with creativity and innovation, which is stifled by the tight monitoring and control within the CSO. People experience actions, reflect on these, learn and can imagine possible outcomes of future actions (Race, 1993). Because of the tight control

culture and highly utilised resources, including staff via their workload, within the CSO, the internal environment is not conducive to creativity and innovation, particularly at the non-TMT level. According to Ahmed (1998) and Cheng (2005), the right organisational climate is needed for creativity and innovation. Dewett (2004) says “employees’ willingness to take risks is an important antecedent of creative effort”. Goldstein et al. (2010) goes further and says "staying competitive in the 21st. century requires a higher level of innovation and adaptability than most have ever seen" suggesting that complex adaptive systems theory are likely to provide the answers in the future.

#### 6.3.6 Whole System Ignorance

Within the CSO there are very few people that have a clear idea of the direction and strategy of the CSO, mainly because of the lack of cross-functional and top down communication mentioned earlier. The Principal in particular and the TMT in general are probably the best placed to know more than most about how the whole CSO operates and performs, but it is unlikely that even these well informed people are fully aware of the complete operations of the CSO, despite the small size and relative simplicity of the organisation. In larger more dynamic organisations there is likely to be greater whole system ignorance. Cilliers (1998) is the only source found that explicitly says that the individual elements/agents (people in a complex system) are ignorant of the whole system, because the system is too complex in its dynamic interactions that no one element/agent (person) can comprehend it.

#### 6.3.7 Self-Organisation

Self-organisation occurs in all organisations to some extent at various levels in the hierarchy. However, it is only recently that strategy and strategy process researchers have begun to pay attention to self-organisation, and then only via complexity theories. Stacey (1993) says “self-organisation is the process in which components of a system



spontaneously communicate with each other and abruptly co-operate in co-ordinated and concerted common behaviour”. Caldart and Ricart (2004) extend this via their analysis of strategy via complexity theory, by saying that “the underlying idea is that designing the surface on which adaptation takes place, by manipulating the interdependencies, and by influencing the relationships between individual actions and payoffs, one may affect the quality of the adaptive process without the need to specify directly individual behaviour.” This purposeful part of the SDP requires in the organisations a recognition that self-organisation does occur and can be made use of, which is often not the case in organisations. In the CSO it is clear that self-organisation does occur at all levels with positive and negative effects, as mentioned above in section 6.3.1 (Positive and Negative Aspects) as in most organisations, but this does not appear to be positively designed, orchestrated, or purposefully made use of. In the VISA organisation, for example, the founder and CEO, Hock (2005), does understand the potential use of complexity and CAS principals and has made use of self-organisation in establishing, forming and developing the VISA organisation; a rare example. In ever increasingly dynamic and complex environments, requiring organisations to adapt to these changes, it is reasonable to assume, based on the above, that there is potential for organisations to make use of the naturally occurring characteristic of self-organisation in their development of strategy. Boviard (2008) has been finding such potential in his studies of local government organisations, and says that greater use of CAS characteristics such as self-organisation could be made in the future.

#### 6.3.8 Non-Linear Interactions

Non-linear interactions are a defining characteristic of CASs (Cilliers, 1998; Stacey, 2001; Mitleton-Kelly, 2003; Snowden, 2007), but they were not clearly detectable in the CSO for this research, nor specifically focused upon. This characteristic was considered

as part of the CVI facet of the CAS lens developed and used for the research (see section 2.4.2 of the Review of Literature).

#### 6.3.9 Conclusion of Validity of the Conceptual Framework

The conceptual framework for this research (see Chapter 3.0) explained the researcher's novel ideas about the application of CAS theory in an effort to improve the contributions of the SDP model to the SDP in organisations. The SAP theories studied formed part of the theoretical framework for this project (section 2.6), but were not focused upon for the empirical research undertaken, because no structured concepts or models could be found in the literature reviewed on which to base the research. It has been clear from the empirical work and the discussion above that there are many areas relating to people characteristics and their behaviour that are relevant to the SDP, as viewed via the CAS lens and included in the conceptual framework, which appear very similar to the ideas included in SAP theories. The SAP literature review of Jarzabkowski and Spee (2009), for example, which mentions the practice of strategizing and people interactions as part of the micro/meso/macro levels of praxis of the SDP, is very similar to the 'people factors' (PF) and 'continuous varying interactions' (CVI) facets of the CAS lens (explained in section 2.4.2.1). This observation from this research confirms the view of Campbell-Hunt (2007) that SAP theory is very similar to CAS theory.

From the above discussion, based on the empirical evidence of the CSO and the knowledge available in the public domain, via the literature, it is proposed that the conceptual framework has been a valid basis for this research. As Tsoukas (1989) says, the case study method is sound and valid for exploratory research, of which this research project has made use, because external generalisation is not an objective of the research, and also not for this research project.

#### 6.4 Conclusions of the Discussion

In summary, this research has linked the empirical research with the established knowledge available in the public domain, thereby grounding the theory developed in the empirical data and the literature (Glaser and Strauss, 1967; Klein and Zedeck, 2004). It has shown that the SDP model is useful not merely as a prescriptive model but also for analysis, to give a clear understanding of the systemic aspects of the SDP. The research has also shown that the SDP model may not be extensively applicable, because there are indications that it may not be appropriate for SMEs and in sectors which are experiencing accelerating turbulence and complexity. The CAS perspective has shown that significant and rich additional information about the people and organisation specific aspects of the SDP are possible to detect, thereby complementing the SDP model. This research also goes some way towards confirming the validity of the conceptual framework. There are some indications that the SDP and SAP theories may both be complemented, and possibly linked, via CAS theory (Stacey, 2001; Campbell-Hunt, 2007; Jarzabkowski and Spee, 2009). In the following chapter overall conclusions for this research are drawn, with explanations for the contributions of this work, recommendations for further research and a brief reflection on the research process.

## **Chapter 7**

### **Conclusions**

#### **7.0 Conclusions**

This chapter concludes the submission of the thesis of the researcher. The dissertation has explained the scope and perspectives of the existing knowledge available in the literature about strategy, its development and the processes involved; about complexity and complex adaptive systems; and about the paucity of literature and empirical research in the overlap area of these two fields of research. It has examined the literature, both the current works and that which explains the origins of the main themes, structured a theoretical framework, and developed a novel conceptual framework. The conceptual framework has been tested for validity by its submission to a reputable academic journal, involving two phases of reviewer and comments, and it has been accepted for publication in the Journal of the Operations Research Society (Hammer et al., forthcoming). The conceptual framework has been further tested by its successful use as a basis for empirical research, explained in chapter 4. The findings of the empirical research have been explained in chapter 5 and compared and contrasted with the established theory in chapter 6. This final chapter completes the thesis dissertation with a comparison of the research outcomes with the original aim and objectives set, an explanation of the contributions of the research as additions to knowledge, and recommendations for further research.

#### **7.1 Comparison with Aim and Objectives**

This research began with the aim ‘Does complex adaptive systems theory enlighten the strategy development process?’ Based on this the following objectives were set:

1. What theories explain the strategy development process ?

2. How does the strategy development process happen, in terms of complex adaptive systems theory ?
3. How does a specific case study example of an organisation develop strategy ?
4. How do other organisations develop their strategy ?
5. Is there a complex adaptive systems theory concept, model, or tool that could inform the strategy development process ?

The researcher is confident that objectives 1,2,3 and 5 have been substantially met, but objective 4 has been only partially achieved. It was not possible to extend the empirical research to include subsidiary case studies, for pragmatic reasons (part-time research project conducted simultaneously with full-time employment). However, the literature study revealed a number of empirical case studies that provided some useful secondary data to assist the research as explained in chapter 4. Objective 5 produced the novel conceptual framework explained in chapter 3, which has been substantially validated as mentioned above. The achievement of these objectives is explained in more detail here below.

#### 7.1.1 Theories that explain the Strategy Development Process

As mentioned above (section 2.2) ‘strategy’ is a difficult concept to grasp, articulate and explain, which is evidenced very clearly by the broad range of literature available on the topic. Study of approximately 500 items in the researcher’s bibliographic database formed the basis for the literature review in chapter 2, nearly half of which appear in the reference list. The structured review resulted in the theoretical framework, which explains two broad areas of strategy development theory, those related to process, and those related to strategy support of the SDP. The focus for this research was on the former, strategy development process theories, which was categorised into descriptive models, prescriptive models, and SAP literature. The latter two categories, prescriptive

models and the Strategy-as-Practice literature, were found to be most useful in contributing to an understanding of the process. These categories in the theoretical framework are broad and not discrete, as much of the literature studied straddled the categories in the theoretical framework. The theoretical framework is claimed as the evidence for achieving this objective of the research.

The literature about prescriptive models of the SDP showed a distinct tendency to focus on the systemic aspects of developing strategy, where many authors saw the SDP like any other process (manufacturing, analysis, problem-solving, etc.), with little regard to the people aspects of the activity. The more recent literature stream from the SAP authors appeared to have recognised this tendency and focus on the people interactions in the process of strategizing, but with little regard to the process aspects.

It is clear to the researcher that the SDP and SAP theories complement each other, but these research communities both struggle to explain their complementing each other, and both areas of theory have not yet addressed the issues of increasing complexity in organisations and their operating environments. These gaps point to opportunities for further research, one of which resulted in the focus for this research - SDP and complexity - a sparse area of study.

The study of the nascent complexity literature completes the theoretical framework for this research by exploring the general complexity literature, particularly that related to complex adaptive systems and that focused on human social organisations. This study found that CAS theory was the most appropriate part of complexity theories for understanding aspects of organisational behaviour, which for this research focused on the SDP.

### 7.1.2 The Strategy Development Process in Terms of CAS Theory

The SDP of the CSO was studied thoroughly via the SDP model to gain an understanding of how the organisation performed in terms of the systemic aspects. This was complemented via a second phase of study via the four CAS lens facets to understand the aspects covering ‘continuous varying interactions’, ‘patterns development’, ‘self-organisation’ and ‘people factors’, which are mainly people and organisation specific aspects of the SDP process. The research has shown there are further and rich insights to the SDP, via the case study, additional to those found by via the study from only the perspective of the SDP model. From the literature studied and the empirical study of the CSO, it has been shown that the CAS lens works well to explain a deeper understanding of the SDP. The CAS lens takes into account the people aspects and organisation specific aspects of the process (where an organisation is comprised of people interacting) which are not accounted for via the SDP model. People develop strategies, so it makes sense to consider people aspects, and organisations are complex adaptive systems, so it makes sense to consider these aspects as well, meaning that CAS theory is ideal for studying the SDP.

### 7.1.3 How the CSO Develops Strategy

The 5½ year study of the CSO, focused on the SDP, via the SDP model essential elements and via the CAS lens, and involved data from CSO archive material and documentation, 44 interview transcriptions, and observations, rumour and grapevine (ORG) notes. It spanned a period (2005 – 2010) of relative significant change, comprising the ‘old regime’, an ‘interim period’ of change of principal, and a ‘new regime’ period. The study period also covered the significant milestones of; becoming an HE designated ‘Dual’ educational institution, adjustments to the mission, award of TDAP, name change to include the words ‘university college’, all with continuing steady

growth, consistent income surpluses and no debt incurred. The development of the CSO strategy during this period, with these changes and events was well researched, providing a thorough understanding of the SDP of the CSO, thereby achieving this objective.

#### 7.1.4 How other Organisations Develop Strategy

This objective set at the beginning of the project was not well achieved, because of time and resource constraints (part-time study and full-time employment). However, use was made of secondary data in the form of documented case studies from the academic literature and examples from the personal professional experience of the researcher, as explained in the chapter 4 Methodology. This material informed the single case study empirical research. The underachievement of this objective meant that similar thorough study of other organisations for comparative purposes was not possible, so the findings of this research cannot claim to be generalised to other cases.

#### 7.1.5 Is there a CAS Theory Concept, Model or Tool to Inform the SDP ?

This objective has been achieved in the form of a novel conceptual framework (chapter 3), which has been substantially validated via the empirical research explained above and by the acceptance for publication of an academic journal article which explains the conceptual framework (Hammer et al., forthcoming). It was not possible to extend the utility of the conceptual framework with a CAS model or tool to inform or improve the SDP or the SDP model (Dyson et al., 2007), because of resource constraints. As will be explained below, this could be the subject of further research.

#### 7.2 Contributions of the Research

The results of this research are various contributions, including theoretical confirmations, extension to theories, new theory, new empirical knowledge, and new practical knowledge. These areas of contribution are explained below.



### 7.2.1 Contribution to Confirming Theory

The research project has made important use of the SDP model (Dyson et al., 2007) in its application with the CSO as an analysis tool to understand the SDP of the organisation. This application found that the SDP model generally works well in providing an understanding of the activities, linkages and processes involved in the SDP of the CSO. Some aspects of the SDP model were not of particular relevance to the CSO. The ‘rehearsing strategy’ element, although attractive in concept, was not performed in any formal or explicit manner within the CSO. Pilot projects and market trials were undertaken by the CSO, with the appropriate cost/benefit analyses and monitoring, control and performance measurement processes in place, but these did not provide the benefit of risk reduction from market exposure that a ‘rehearsing strategy’ element would have provided. However, an informal strategy rehearsal process was apparent, via the use of the CSO Principal’s ‘virtuous circle’ business model, whereby change ideas were iteratively compared to TT1’s mental model in the very many informal discussions (continuous varying interactions), as strategy was being developed (Van der Heijden, 1996). It was also found that in the CSO there is an apparent direct link between the ‘direction setting’ and ‘sense-making’ elements, which is not made in the SDP model. In the SDP model, this link is made via the ‘learning, via performance measurement’ element. Overall the SDP model did provide utility in understanding the systemic part of the SDP in the CSO, thereby contributing to confirming the applicability of the model. From the application of the SDP model to the CSO it was found that it may not be generally applicable, particularly in turbulent external environments and applied to SMEs. The SDP model also does not provide any people or organisation specific elements, which are considered very important to the understanding of how strategy is developed in a practical context, because people develop strategies.

### 7.2.2 Contribution to Extending Theory

The main theoretical contribution of this research is the conceptual framework explained in chapter 3 and its substantial validation as explained above. The conceptual framework complements the SDP model (Dyson et al. 2007) by extending the understanding of the SDP systemic elements with people and organisation specific aspects, from a CAS perspective, thereby increasing its utility.

The area of complexity theory, and CAS theory in particular, has been studied in this research. In the process of these studies the characteristics of CAS have been analysed (Cilliers, 1998; Stacey, 2001; Mitleton-Kelly, 2003) and synthesised to provide a common set of 16 characteristics for CASs. These were further analysed and synthesised resulting in a novel CAS lens comprising four facets (CVI, PD, SO and PF) explained in section 2.4.2.1, which was designed to view organisations in an effort to understand their behaviour, in particular the SDP. In a similar manner to section 7.2.1, where the SDP model was applied to the CSO data, the CAS lens was also applied in a second phase of analysis to the CSO data, producing insightful results. This application confirms the validity of the CAS lens and extends the existing knowledge of CAS theory, potentially opening a path by which organisational behaviour can be studied via a CAS perspective. Additionally, this research contributes by grounding CAS theory in empirical data and thereby to validating CAS theory as a means to gain a deeper understanding of the workings of organisations, in this case, the SDP.

In addition to this, the research also extends the work of Campbell-Hunt (2007), via examining praxis at a macro-level (Jarzabkowski and Spee, 2009) by linking strategising activities to complex adaptive systems theories. Campbell-Hunt suggests that SAP should embrace CAS theory in the research of strategizing activities.

### 7.2.3 Contribution to New Theory

There are two aspects to the contribution of this research to new theory. The first is the discovery of 'latent strategy development process' and the second is the linking of two areas of theory, SDP and SAP theory.

The first aspect of contribution to new theory claimed, referring to section 5.6.4 (Conclusions of the Findings), is the 'latent strategy development process', which was detected from the application of the CAS lens. This provided a deeper view into the CSO's SDP thereby explaining the causes of the emergent processes taking place. This in effect provided a pre-emergent view of the SDP of the CSO, because the causes of emergence of the strategy developed were in the people factors of the key players (TT1 and TT2) their backgrounds and experience, how they spontaneously self-organised, how they interacted, the behaviour patterns detected, and the strategic decisions made in the past. Such a pre-emergent view of the SDP of an organisation provides the potential possibility to broadly predict future patterns of behaviour and thereby aspects of future SDP and strategy content. These insights were based on the CAS theory characteristics imbedded in the CAS lens applied in the analysis process used for the research.

The second aspect of new theory claimed is the potential linking of the two areas of SDP and SAP. CAS theory is the link between the two areas of theory. CAS theory complements the SDP model by complementing the systemic process aspects of the SDP, with a people and organisation specific aspect of the SDP. From this perspective, CAS theory also informs and extends SDP theory. CAS theory complements SAP theory, which explains the people and organisation aspects of the SDP, with the systemic aspects of the SDP, because CAS theory also incorporates aspects of systemic dynamic interaction. CAS theory is the common element and as such complements the two areas of theory and potentially provides a link between the two.

#### 7.2.4 Contribution to Empirical Knowledge

The contribution to empirical knowledge of this research is the understanding and articulation of the SDP of the CSO, which has not been explained before. This provides the potential for practical improvements to the CSO in their SDP and their operations, so that greater efficiencies can be realised and greater creativity and innovativeness can be generated. The research also provides insights to the forces at play and processes involved in the SDP of an example of a 'Dual' institution, operating in both the FE and HE sectors in the UK.

#### 7.2.5 Contribution to Practical Knowledge

The contribution to practical knowledge is the potential application of CAS theory to analyse the SDP (and possible strategy content) of competitor, customer, supplier and other stakeholder organisations, via an understanding of the 'latent strategy development process' (mentioned above). Such an understanding of external stakeholder organisations provides some broad predictability both of the SDP and potentially the strategy content. Any future view of competitors or other players in a market place can be very valuable 'sense-making' inputs to developing strategy.

#### 7.3 Further Research

This project has been an exploratory study to see if CAS theory enlightens the SDP. In the course of this research there have been a variety of possible directions discovered by which research could be developed further in future projects. Below follow some suggestions for possible further research projects.

### 7.3.1 Further Research - Confirming Theory

Cross-sectional studies would be a sensible further research, where a number of organisations, large and small, in a variety of sectors are studied, to test further the conceptual framework explained in this thesis in an effort to look for general applicability. This would probably require an approach that was less in-depth and possibly involving other research methods, with shorter time-scales (Saunders et al. 2009). In this way the conceptual framework would be confirmed in more detail and provide a better basis for developing models and tools, to help practitioners develop their strategy, as organisations and their environments become increasingly more complex.

### 7.3.2 Further Research - Extending Theory – SDP, SAP and CAS

This thesis has provided the first link between SDP, as explained from a Strategic OR perspective, showing there is more room for future research to link Strategic OR, with the emerging field of SAP, where CAS theory is the link in this connection. Establishing linkages between SDP and SAP with CAS at the macro level seems an obvious starting point, but more challenges would occur if the link were also examined at the meso and micro levels as well (Jarzabkowski and Spee, 2009). The SDP literature currently has no contributions in this area and CAS theory may well provide the catalyst. The people aspect is a notable lack of the SDP model, as explained in the thesis, which is an aspect that is central to the SAP literature (Jarzabkowski et al. 2007, Jarzabkowski and Whittington, 2008, Regner, 2008). CAS theory has provided the appropriate background for the improvement of the SDP model for this type of study, and is supported by an established body of theory, as shown by this thesis (Buckley, 1968; Cilliers 1998; Stacey, 2001; Mitleton-Kelly, 2003; Snowden, 2007).

### 7.3.3 Further Research – ‘Latent Strategy Development Process’

The contribution to new theory mentioned above (7.2.3) referring to ‘latent strategy development process’ could be explored further in an effort to make the concept and its potential applicability more explicit. It is clear from the research that the backgrounds of strategists and the past development of organisations have a clear influence on current strategic decisions and the SDP. These aspects provide a hidden pre-cursor to the SDP, a pre-emergent process, termed here as ‘latent strategy development process’, an area not previously researched. There are links to other aspects of strategy development not focused upon in this thesis, but connected to CAS theory. Path dependency theory is one example, which explains how previous decisions make future decisions more or less likely (Teece et al., 1997; Greener, 2002). The connection to CAS theory is included in the characteristic of ‘people and CAS have histories’, which explains that activities in the past cannot be ignored in the development of organisations (Cillers, 1998; Mitleton-Kelly, 2003). From the ‘latent strategy development process’ perspective, it may be possible to understand future strategy options better, and any method which can be found to help strategists understand the future development of organisations (own organisation, competitors, customers, suppliers, and other stakeholders) is intuitively potentially very useful. The two aspects of peoples’ backgrounds and past organisational development could be split and researched separately, but caution should be used because these aspects are clearly interlinked. Reference to Boulding’s Hierarchy of Complexity (1956), summarised in Appendix 2 and explained fully in his article, shows clearly that the definition of human being is difficult to separate from the human social organisation, because humans are social animals that need to interact with others. People interactions is a defining characteristic of CASs and organisations, as explained in this thesis.

### 7.3.4 Further Research – Informal Strategy Development Process

As mentioned in section 7.2.1 above, an informal strategy rehearsal element of the SDP model (Dyson et al. 2007) was detected in the CSO, where the principal, via the very many informal SDP discussions, compared change ideas with his mental model ('virtuous circle') as his 'business idea' (Van der Heijden, 1996). Informality in the SDP is a normal part of developing strategy and in running a business in practice (Mintzberg, 1987a; Mintzberg and Lampel, 1999; Scott-Morgan, 1994) but these aspects of the SDP are rarely researched. It could be interesting and useful to research empirically the informalities of the SDP, comparing the element of rehearsal from the SDP model, with business ideas/mental models of scenario planning (Van der Heijden, 1996), with the people backgrounds (PF) and people interactions (CVI) of CAS theory, and possibly the process of strategizing (SAP theory). As mentioned above (7.3.3) people interaction is part of what defines human beings, and a defining characteristic of CASs.

### 7.3.5 Further Research – Social Network Theory, SDP and SAP

Considering the CVI facet of the CAS lens (section 2.4.2.1) above and the above two suggestions for further research (7.3.3 and 7.3.4), use could be made of the nascent social network theory (Barabasi et al. 2002 and Goldstein et al. 2010), OR SA techniques (Abbott, 1995) and/or the extensive OR heritage of modelling and simulation. These ways of studying CVI were not focus to this research, but they may offer useful routes to progress the study of the SDP. The development of social network theory seems to have been due to the use of complex computer systems, which allow researchers to model information and interaction flows in various ways. It is believed that these simulations are beginning to include qualitative aspects of both the actors involved in the interactions and the value of the interactions themselves. Such developments may allow social scientists to study organisational social interactions in the areas in which this research

has focused, CAS and SDP, in more realistic ways and in more detail. It is thought that the OR community could be ideally positioned to progress such research. The development of simple to use and simple to understand CAQDAS support tools for SDP/CAS/SAP research would also be a useful development.

### 7.3.6 Further Research – Self-Organisation and SDP

The SO facet of the CAS lens, focusing on self-organisation, is another defining characteristic of CASs. As has been explained above (section 2.4.2), self-organisation occurs spontaneously in organisations under certain circumstances (Kauffman, 1993 and 1995; Eoyang, 2001; Mitleton-Kelly, 2003, Snowden, 2007). More use could be made of this characteristic, both in research and in practice if more is known about it. This research showed that self-organisation occurs at all levels within the organisation, with positive and negative effects (Griffin et al., 1999, Caldart and Ricart, 2004; Boviard, 2008). If empirical studies were done to understand more about how organisational managers could make use of self-organisation, as the VISA organisation has done (Hock, 2005), there could be potentially useful positive implications for organisations on how they could develop their strategies, and possibly make use of self-organisation in the SDP.

### 7.4 Reflections

The research process to arrive at this thesis, the researcher's position with regard to SDP and CAS, has been a very rewarding learning experience. It has provided the researcher with a good set of academic research skills, equipped him with a very good bibliography and support systems, and helped develop a good store of knowledge upon which to develop further research. It has been a long and testing project completing this marathon academic exercise, which has acted as a capstone to a very varied and long career, solved and set many intellectual puzzles, and also provided a sound foundation for the next life-



stage. It is also satisfying to feel that the efforts made have produced some contributions, which have been recognised, as evidenced by the acceptance for publication of an academic journal article in which the researcher took the lead (Hammer et al., forthcoming). This has given the researcher the confidence to recommend some possible further research directions, as mentioned above (section 7.3).

This concludes the dissertation of the researcher's thesis.

END]

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## APPENDICES



Appendix 1 – SDP Model (Dyson et al. 2007)



## Appendix 2

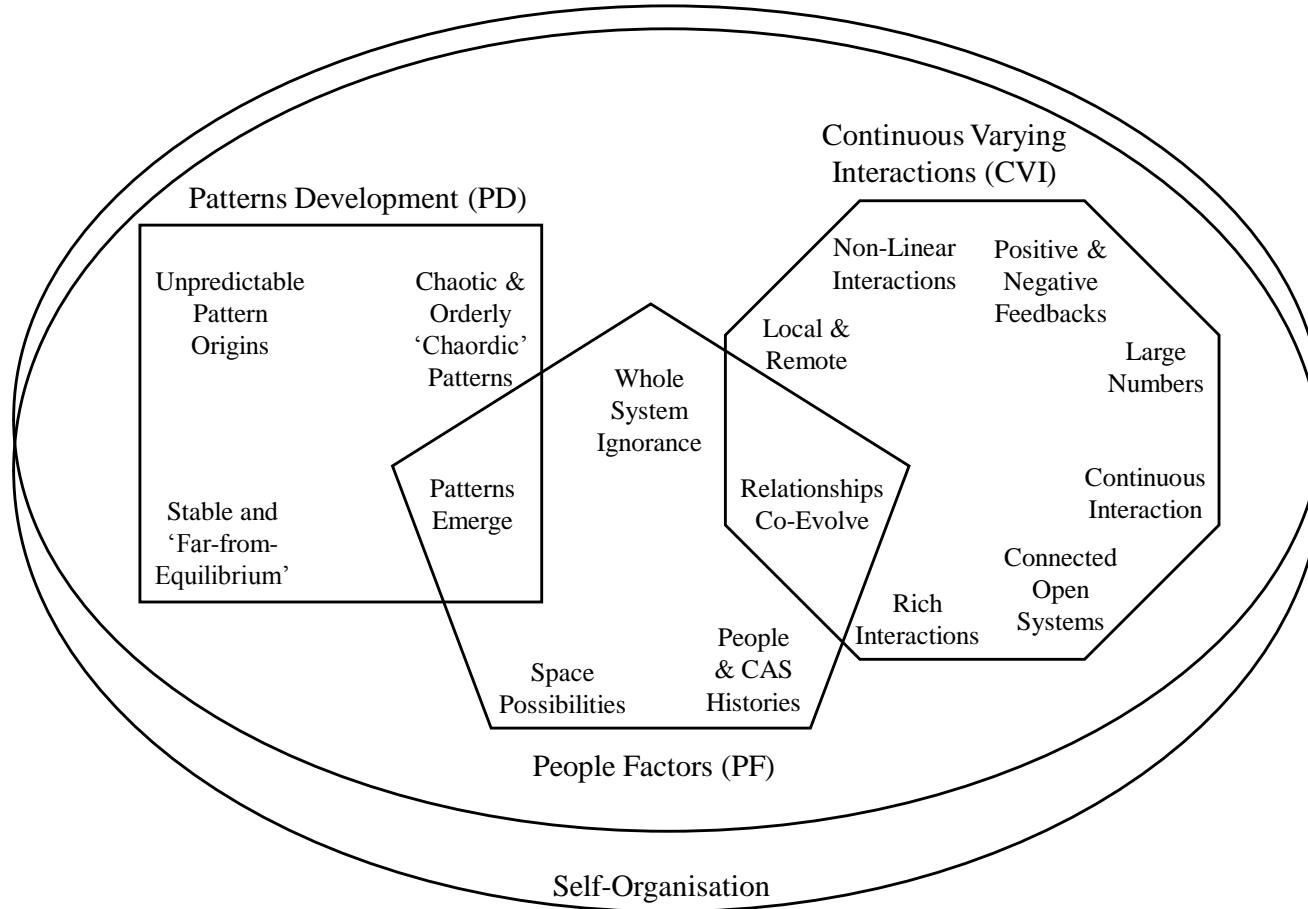
### Hierarchy of Complexity (Boulding, 1956) – A Summary of the Nine Levels

1. *The Static Structure* – the level of frameworks, for example the geography and anatomy of the universe, the patterns of electrons around a nucleus. It is the beginning of organised theoretical knowledge.
2. *The Simple Dynamic System* – with predetermined necessary motions, the level of clockworks, for example the solar system, complicated machines like steam engines and dynamos.
3. *The Control Mechanism* – or cybernetic system, at the level of the thermostat, different from the lower simple equilibrium systems, in that the transmission and interpretation of information is an essential part of the system. The system will move to the maintenance of any given equilibrium, within limits.
4. *The Open System* - or self-maintaining structure, the level at which life begins to differentiate itself from not-life, the level of the cell. Self-maintenance of the structure in the midst of a throughput of material becomes of dominant importance. Close to self-maintenance, at this level, is self-reproduction, which is at the beginning of 'life'.
5. *The Genetic-Societal Level* – typified by the plant, with a division of labour between cells, and differentiated and mutually dependent parts, and 'blue-printed' growth (DNA).
6. *The Animal Kingdom* – animals characterised by increased mobility, teleological behaviour and self-awareness. There are specialised information-receptors linked to a nervous system, ultimately the brain. The response is not merely to a stimulus but to an 'image', or knowledge structure, which is exceedingly complex. The structuring of information results in something different from the information itself, potentially producing far reaching changes, which are difficult to predict.
7. *The Human Level* – involving self-consciousness and self-reflexive qualities. The human not only knows, he knows that he knows. This is connected to language and symbolism and an elaborate image of time and relationship. Man not only exists in time and space, but in history and behaviour is profoundly affected by his view of this.
8. *The Social Organisation* – Because man is a social animal it is difficult to separate this and the previous level. A social system is a set of roles connected with channels of communication, where there are interrelations between the individual and the person. This level involves the content and meaning of messages, dimensions of value systems, historical records, human emotions, and all the complexity and richness of human life in society.
9. *The Transcendental System* – involving the ultimates and absolutes and the inescapable unknowables, which also exhibit systemic structures and relationships.

### Appendix 3 – CAS Characteristics

(The electronic copy of this thesis may show this appendix at the end of the file.)

Appendix 4 – CAS Lens



## Appendix 5 – ‘My Background and My Values’

### **Roger Hammer** **(based on my curriculum vitae)**

A catalyst for change, explorer, developer, an excellent team-builder and team-worker; enthusiastic, motivational and innovative, culturally aware and a concise communicator. A Cranfield MBA with 15 years international ICT experience. Fluent in Dutch/Flemish, with some French and German. An expert in Customer Value Management, competitor intelligence and a strategic visionary.

#### Key Skills

- People developer – involved advisor - coach/counsellor/mentor/teacher/lecturer
- Good listener – reflective – empathetic – develops rapport, confidence, dialogue
- Good communicator – small groups – large audiences – conference speaker
- Productive – appropriate outputs – on-time – on-budget – reliable delivery
- Facilitator/catalyst – workshops/seminars – able to get the best out of people
- Strategic vision – explorer/ideas generator – out-of-the-box thinker
- Analytical capability – resourceful data gathering – creative interpretation
- Results and recognition orientated – within appropriate context – firm and fair
- ‘At home’ internationally – easily fits into new environments – flexible

<u>Qualifications</u>	<u>Level/Grade</u>	<u>Date</u>
• Cert. Ed. (Post Compulsory Education)	Pass	2004
• FENTO 7407 – Teacher Training certificate	Pass	2003
• MBA – Master of Business Administration (Cranfield)	Pass	1981
• CIM – Diploma in Marketing (1968)	Member	1981
• HNC – Business Studies	Pass	1967
• ONC – Business Studies	Pass	1965

#### Current Education, Training, Research Interests, Memberships and Publications

- DBA – Doctor of Business Administration – Aston Business School – part-time
- Researching - ‘Strategy Development Process and Complex Adaptive Systems’
- Dissertation Supervision workshop (Dr. Devi Jankowicz) at UCE – June 2003
- Ufi/NTS ‘Learn Direct’ – On-Line Learner Mentoring Course – May 2002
- Member of the Chartered Institute of Marketing, the Association of MBAs and the Cranfield Management Association.
- Various ‘internal’ publications (Unilever, Philips and AT&T) not externally published. Translated from Dutch into English for ‘De Economist 133 Nr. 3 1985 an article ‘Exports of the Manufacturing Industry (NL) – an econometric analysis of the significance of capacity’ by Dr. D.A.G. Draper.

#### Teaching/Coaching/Mentoring Experience

- Under and post graduate lecturing, dissertation supervision at UCB 2003 - date
- MBA/MSc. dissertation supervision of BCU students Summer 2003
- H.E. Teaching - HND/DMS/CIM students (Levels 4/5) 2002 - 2003
- Coached a nine-person team under ‘choose-your-own-boss’/’360° feedback’ principles 2000 – 2001
- Developed a group of ten for customer intelligence purposes 1996 - 2000
- Presented to peer experts at three international conferences:-
  - Vienna, Austria – ‘Customer Satisfaction/Dissatisfaction’ 1998
  - Rome, Italy – ‘Customer Satisfaction and Customer Loyalty’ 1999
  - London, UK – ‘Customer Value Management’ 1999
- Established pan-European team for competitor intelligence 1994 - 1996
- Taught Marketing at a Bristol University summer school 1985

## Career History and Key Achievements

**Lecturer in Marketing and General Business Management** 2003 to date  
at University College Birmingham (UCB)

**Principal Consultant** 2001 - 2003

Projects - Linking customer loyalty and profitability (including use of the ECSI and EFQM models), analysis projects of Medical Imaging, Industrial Controls and Media Technologies markets.

**Galileo Management Consultants, The Hague, Holland** 2000 to 2001

- For CEO facilitated client's consolidation of three SBUs (France Telecom).
- Developed 'Human Capital' matrix to capture firm's skill-set for transparency.

**Senior Marketing Manager – Customer Value Management** 1996 to 2000

**AUCS Communications Services (was AT&T-Unisource)** - One of the largest, global, business telecommunications alliances competing with Equant, Concert, Global One, WorldCom, etc.

- Customer Focus Champion in international, high tech, high service environment.
- Developed the customer satisfaction measurement processes.
- Formulated and implemented strategy internationally.

**Senior Marketing Manager – Competitor Intelligence Expert** 1994 – 1996

**AT&T-Unisource** – UK and Netherlands based.

- Founder member the Society of Competitor Intelligence Professionals (Europe)
- Provided a rich flow of market intelligence to formulate business strategy.

**Strategy Development Manager – Internal Consultant** 1989 – 1994

**AT&T Istel** – (A leading U.K. Data Communications I.T services company)

- Developed, and put into practice, a strategy review process for six business units.
- Evaluated and recommended continental European merger and J.V targets
- Identified and developed a Core Competencies for personnel development.

**Marketing Manager – AT&T Istel** 1986 – 1989

- Studied the I.T requirements of the UK manufacturing industry
- Established strategic marketing for the marketing communications purposes
- Implemented the market penetration plan for the U.K. Food and Drink sector.

**Principal Consultant – South West Management Services** 1981 – 1986

Established my own management consultancy practice to service the marketing and business needs of small and medium sized enterprises in the south-west of the U.K. A one-man practice with associates.

- Identified the reasons for underperformance of a compressor manufacturer.
- Recommended business diversification alternatives for a rural company
- Helped a business services company expand into new areas.

**MBA – Cranfield School of Management** 1980 – 1981

- Very well motivated to fund this one year of full-time study myself.
- Devised a performance comparator using the then latest computer techniques
- Member of the top study group within the year, as rated by our peers.

**Product/Account Manager – de Etna b.v. (The Netherlands)** 1978 – 1980

Part of the Internatio-Muller; Etna is a small manufacturer of domestic cooking and kitchen equipment.

- Formulated new product range after extensive analysis of market requirements, alternative suppliers, and evaluating the production capabilities.
- Spearheaded the development of the U.K. as an export market.

**Product Manager/Account Executive – N.V. Philips (The Netherlands) 1969 – 1978**

Began as advisor/facilitator on European advertising and sales promotional activities for domestic electro-acoustic equipment - audio and video recorders, etc. Moved to product management and selling professional electro-acoustic equipment - dictation machines, cinema equipment and security systems, etc.

**Product Manager/Media Planner – Unilever Ltd.**

**1963 – 1969**

Started in a small team managing cosmetic products and brands manufactured and sold in West Africa. Moved to Lintas Advertising Agency as a media planner recommending advertising budgets, media and campaign plans for Unilever brands (Birds Eye, Walls and Lever Brothers).

**Interests:**

Wines, vineyard management and food

Architecture and discovering art

Sailing and navigation

Walking, swimming, keeping fit - (BMI – Body Mass Index = 25).

**Psychological/Occupational Tests**

SHL Group's OPQ

Occupational Personality Questionnaire

1. Team Worker
2. Plant (ideas person)
3. Co-ordinator  
Monitor – Evaluator  
Resource Investigator

Margerison – McCann's TMI

Team Management Index

1. Explorer Promoter
2. Assessor Developer
3. Creator Innovator

MBTI – Myers-Briggs Type Indicator

E – Breadth of interest  
N – Grasp of possibilities  
T – Logic and analysis  
J – Organisation

**My Values**

I am curious and am always looking for reasons why something is happening. I like to do things thoroughly and can be very focused, but I am not afraid to make compromises if circumstances require it. I have a reasonable 'helicopter-view'. I am also a people person and like to try to understand why people behave the way they do. Generally I am optimistic, happy and active, but I also value relaxing at home.

## Appendix 6 - CSO Interview Topics

Thank you for giving me time to interview you. May I switch on my recorders?

### RECORDERS ON

- Q1. I just want to confirm that you agree that I can record the interview ? The information will be anonymous and not attributable to anyone and the data will only be used for my research purposes.
- Q2. Have you been able to read my interview briefing paper ?
- Q3. You are ..... and your role is ..... (confirmation sought) Would you tell me a little about your background, how you got to the position you now hold and what your current role involves ?
- Q4. Specifics (per interviewee – maybe later in the interview)
- Q5. What is the current F.E./H.E. environment like ? Future trends ?
- Q6. How capable is CSO to cope with the current/future opportunities and threats ?
- Q7. How does CSO create strategic initiatives ?
- Q8. How does CSO assess strategic ideas ?
- Q9. How does CSO measure its performance ?
- Q10. How does CSO learn from its performance measurement ?
- Q11. How does the mission of CSO get devised ? And, the 'corporate objectives' ?
- Q12. How does CSO implement the corporate objectives/strategic change ?
- Q13. If you could look into the future, would you describe what CSO would be like in 5-10 years time ?
- Q14. What lessons can be learned from the past ? (re-structuring, re-orgs.) What patterns can be detected ? What measures worked well/less well ? Why ?
- Q15. What are the most important issues currently affecting CSO ? What has changed and why ? What improvements could still be made ?
- Q16. Thinking about the overall business/corporate strategies, is there a 'formal' strategy development process ? Who is involved ? And, would you explain it to me – your understanding of the process ? (Is there any Strategy Development Process document ?)
- Q17. How are initiatives taken locally (at school/department level) ? And, at strategic level (corporate, whole college level) ? What is the most effective approach ?
- Q18. How would you discuss/decide/agree/argue the issues, opportunities, threats, options, direction and risks with your colleagues (strategy development team) ? Who ? When ? How ? (When does an issue become an issue ?)



Q19. Suppose an opportunity or threat popped up ‘out-of-the-blue’ –something very important and very urgent – say, another college/university makes an unexpected, attractive merger bid – what would you do ? What would the strategy development team do ? (= urgent & important) How about an emerging problem – e.g. succession ?

Q20. If you could change the way CSO develops strategy, what would you change ?

Thank you for your time and your input.

## Appendix 7 – Interview Briefing

### **Introduction**

This document provides an introduction to the interviews being conducted by Roger Hammer, (the researcher), a doctoral student (DBA) at Aston Business School (ABS), Birmingham, United Kingdom. He is a university lecturer. There are four sections to this:

- Ethical guidelines
- Interview format
- Background information
- Brief biography of interviewer

#### **1. Ethical guidelines**

*The interviewer will ask you to confirm that you have read and understood these guidelines.*

The researcher is fully aware that data given as documentary and verbal information may be sensitive in nature and indiscretion in its use may be harmful to individuals, groups and CSO. Therefore, any data gathered will be treated with the utmost discretion and confidentiality. CSO, individuals and groups will not be identified or attributable (codes and pseudonyms will be used). Participation in the research is purely voluntary and any individual or group, or indeed CSO, can withdraw at any time and any data and analysis thus far gathered would be destroyed in a confidential manner.

Any data gathered and analysis thereof will be stored in a secure place (Roger Hammer's private residence – address is known by CSO and ABS). It will be kept for the duration of the DBA programme, until completion of the doctorate and for three years thereafter. The research will contribute towards the DBA and publications such as journal articles, conference papers and presentations may result from the process. Great care will be taken to ensure the anonymity of individuals, groups and CSO in any publication except with the prior, express and written consent.

Despite these cautionary commitments, mentioned above, there are potential significant benefits to CSO from this research. These include a greater general awareness of how CSO actually develops its strategy; availability of novel strategy development insights and concepts; availability of leading-edge knowledge in strategy development and complexity theories (related to strategy development) for operational and academic purposes; potential (soft) promotional credit via published articles, conference papers, etc.

1. All interviews will be recorded with the express permission of the interviewee.
2. The transcripts will be used only for research purposes by the researcher. This means that the data gathered will be analysed for particular themes, across all interviewees (and sub-groups) in an effort to detect patterns that will help with theory development theory testing.
3. All reports, papers for publication, etc. will be **non-attributable**, i.e. the names of individual interviewees will not be given, the position in broad terms of the interviewee may, however, need to be given when quotations are used to provide an accurate context. Anonymity will be strictly observed and practised.

4. The researcher will be free to publish papers based on the research material. Drafts of papers will be, however, submitted to the main contacts for factual correction.

## **2. Interview format**

The interviews are planned to last approximately 60-90 minutes, at a date, time and venue mutually convenient to interviewer and interviewee. The interview is not questionnaire-based, but will invite views about the situation on certain broad themes or topic areas.

## **3. Project background**

This interview forms part of the primary research data gathering for my project.

My research is about trying to understand how organisations develop strategy in times of accelerating speed of change and rapidly growing complexity. I've experienced this increasingly rapid development over the last two or three decades and seen many organisations struggle to find a way forward. Complexity Theories may provide a useful approach for managers to help them understand how a company can change and adapt to an ever increasing complex business environment.

The Case Study Organisation (CSO) is being used for the main, long-term, in-depth, case study part of the research project, because it is practically accessible to the researcher. The project has the current title of 'Strategy Development Process and Complexity Theory – an investigation of how aspects of complexity theories may impact strategy development.

The interview will focus on the development of strategy at CSO, the process, not the content, although the two areas are obviously linked. Because of the confidentiality that CSO strategy content may have to a wider audience, all data and information gathered will be treated with the greatest discretion and confidentiality.

## **4. Brief biography of the interviewer/researcher - Roger Hammer**

I am a full-time, qualified teacher, a recognised lecturer of the University of Birmingham, currently lecturing in Business Management and Strategy subjects at CSO and studying for my DBA (Doctor of Business Administration).

I have more than 45 years business experience in large and small companies, in the manufacturing and service sectors, based in the UK and continental Europe. I have also run my own business, a successful marketing and strategy consultancy practice.

My international experience includes 12 years working and living in the Netherlands with a large MNC, NV Philips in Eindhoven, a small manufacturing company in Breda and a management consultancy practice in The Hague.

**END]**

## Appendix 8 – CSO Documentation – A Selection

1. CSO Corporate Plan 2007 – 2012
2. CSO Performance Measures and Targets 2006/2007
3. CSO Performance Measures and Targets 2008/2009
4. CSO Charters 1995 – 2010
5. CSO ‘Instrument of Government of the Corporation’
6. CSO ‘Articles of Government’
7. CSO Committee Memberships
8. CSO Undergraduate Prospectuses 2005 – 2010
9. CSO Post Graduate Prospectuses 2005 - 2010
10. CSO Professional Development Programmes (various)
11. CSO ‘Inspire’ Initiative for Voluntary Activities
12. CSO Awards Congregations Programmes 2005 – 2010
13. CSO Self-Evaluation Document for the QAA Institutional Audit
14. CSO Praxis – Review of Scholarly Activity & Knowledge Transfer (2007 – 2010)
15. CSO Annual College Conference Programme (various)
16. CSO ‘Premier Cru’ Staff Newsletter (various)
17. CSO ‘First Class’ Newsletter for Alumni (various)
18. HM Treasury – Spending Review – October 2010 – CM 7942
19. ‘The Browne Report’ - [www.independent.gov.uk/browne-report](http://www.independent.gov.uk/browne-report)
20. CSO Website – accessed very frequently between 2005 – 2010
21. Various CSO university-wide email announcements 2005 – 2010
22. Miscellaneous CSO letters, memos, circulars, brochures, etc.

## Appendix 9 – Observation, Rumour and Grapevine (ORG) Data

1. (22/11/2008) About SM7 (via L7) – SM7's attendance was not required at the (New) SMT meetings that were set up at the beginning of the 'New' Regime for the CSO. This is surprising because SM7's predecessor (SM11R), who retired, was a member of the old SMT and the admissions information on student numbers is a very important factor in the CSO organisational decisions.
2. (04/06/2009) About SM7 (via L7) and confirmed with SM7 – Referring to (1) above, the membership of SM7 on the (New) SMT has been re-instated. It now seems that his input as department head for admissions is important to the CSO (to do with the need to control student numbers). [1&2 are linked to the need to 'control' things from the centre, a TT2 characteristic]
3. (16/03/2010) There was a Communications Session held by TT2 and TT9 to all the staff (who wanted to attend) to explain the new CSO property and premises development. Referring to this and in discussion with TT6, it seems that the timing of the session was not significant, it was merely meant as a start to a series of communication sessions. It seems that the CSO has become aware that communication from the TMT is important for other members of staff. (Under the 'Old' regime, TT1, 'secrecy' and 'need-to-know' were themes.) The TT2/TT9 (first) 'comms. session' event was thought to be a good start for the series, because it allowed the top person (TT2) in the CSO to 'kick off' the series and it would also be a good introduction of the newest member of the TMT (TT9). The topic was also thought to be a good positive and motivational message to transmit. The session was supposed to show the confidence of the CSO despite the current economic environment. The next comms. sessions planned are from TT3 on Business Development, meant for the (New) SMT and one from TT6 on government/educational trends/shift sensed. The idea is to develop wider business awareness among CSO staff in the spirit of personal development (PDP). This comms session series is seen as another novel strategy of the TMT in sharing more information. It could also be seen as developing organisational communications generally (CVI) and lubricating and extending the excellent sensing capabilities of the TMT by applying the principle of 'give before you get'. This principle injects an obligation into the relationship for the receiver to reciprocate by providing information and feedback, thereby contributing to extending the CSO sensing capabilities. In this case, the comms session series, could improve sensing of the internal organisation and also possibly the interface (networks) externally.
4. (26/11/2008) About TT2 (via SM15) – TT2 with the new management meeting structure (New SMT and EMT) could be seen as 'freezing out' people he doesn't want (TT4 sidelined to International, SM7 not required, then required – see 1&2 above) in his circle of senior people. At the same time he is including people he does want (TT9 and 'old crony' ? and TT10 promoted – N.B. the latter has an FE background, an area that TT2 does not want to abandon – his origins) [This is linked to the need to 'control' things from the centre, a TT2 characteristic]
5. (04/12/2008) About L8 (via L7) L8 was completing his PhD part-time at the CSO and asked for a 'fractional' contract as CSO employee, to allow him more

research time. This was not allowed and he had to become a 'contract' lecturer (not a CSO employee), which meant he had to pay back several years of Uni fees to the CSO, previously paid by the CSO. This reflects the strong control elements of the CSO culture.

6. (29/01/2009) L9 mentioned the purchasing of books and equipment for the CSO library. The ordering system is very bureaucratic with exceptionally slow payments to suppliers. "All orders are paid by cheque, via periodic 'cheque runs'. Any reasons for delaying payments are welcomed and any enquiries about payments are not actioned for 15 days, then they are investigated. This refers to the 'old' regime and indicates a very slow cash out-flow control (= prudent).
7. (30/04/2009) In discussion with L10 and L11R "(CSO) is not interested in research for the HEFCE/RAE funding allocations, but it is interested in the knowledge transfer possibilities and the related positive publicity that could result." This reflects that there is no CSO research strategy, except that the CSO does not intend to seek funds from research funding budgets. [See the interview details of SM12R, which said that the CSO has no capabilities to do external research, academically or functionally, to compete in the market place.]
8. (18/05/2009) Referring to the above (CSO Research Strategy), L10 said that CSO does not have a clear research strategy. However, there is research funding available via HEFCE, the Higher Education Innovation Fund (HEIF), for which all HE colleges can apply if they can justify its use. On this basis, the CSO was awarded £750,000 over 3 years (2009-2011) for 'knowledge transfer' projects. But, "the (CSO) has no research strategy, nor and direction and doesn't know what to do with it (the money). Also there's not a clear idea of who is leading it (TT3 or TT6 or SM14 ?).
9. (21/09/2009) L12 applied for an internal position advertised within the CSO to sell training courses in retail management to the UK retail sector. Such a move would not be in conflict with the LUKU with which the CSO has a relationship. At the interview it became clear that L12 had a lot to offer the CSO, but that the interviewers (TT2 and TT10) were unclear what the role should be and of the direction and strategy for the venture. The aim seems to be to generate additional external funding from the private (retail) sector. "They hadn't thought it through" and expected L12 to establish and build the role, whilst at the same time L12 was to do her full-time lecturing duties !
10. (04/11/2009) L13 about L14, who had a sudden family bereavement. TT2 was the only senior manager to contact her, very soon after the event, to give her a very re-assuring message by phone, and said that she should take her time, come back when she is ready and the CSO will give as much support as she needs, etc. Nothing was further heard from any other CSO managers (although her news and absence was well known). Then after a returning to CSO, five months later, to hand in some papers, she was told by the HR manager (SM8) that there was a constraint on her absence from work; 100 days at full-pay then 100 days at half-pay – completely without warning. (Incidentally, this is less than the CSO Admin. Support staff get, which is ½ year full-pay and ½ year half-pay, which is what academics generally expect.) So, there seem to be 'soft and cuddly' words

from TT2, but hard rules from the administration and bureaucracy. [Is it that TT2 doesn't know what the rest of the organisation does, or is he aware and is behaving like a peach (soft outside and hard inside). This seems to be in line with inculcating a culture of fear, hierarchy and control.]

11. (04/11/2009) In discussion with L13 and L15 about L1, where his colleague was taken seriously ill abroad on a CSO student trip. L1 asked and was encouraged to go out abroad to be with him, by TT2, for 2 weeks and travel with him back to the UK. On L1's return he was advised that he had now to take the 2 weeks abroad as annual leave holidays, without any warning. [Is it that TT2 doesn't know what the rest of the organisation does, or is he aware and is behaving like a peach (soft outside and hard inside). This seems to be in line with inculcating a culture of fear, hierarchy and control.]
12. (03/12/2009) In a short discussion, L19 explained his background in the Hospitality industry, teaching in Switzerland and eventually joining the CSO six years ago. He plans to stay until his retirement ! L19 is very puzzled about the CSO. There seems to be no communication despite being awarded with the 'Investors in People' accreditation. "It must be a 'tick-box' process we want to be seen as having." L19 has no idea what the CSO's mission, corporate plan, aim or objectives are. "These have never been communicated. They're also not easy to find on the website, nor who to ask for them. They do not seem at all interested in the staff (particularly academic staff) – as long as we are here, doing our jobs and the related admin and in looking after students, all is OK. Staff training is a laugh. There are only irrelevant courses on how to use an electronic whiteboard, health & safety, first aid, etc. There is no real understanding of what each person needs or wants. The internal processes are amazingly inadequate. Nothing is joined up. There's no consultation on what is needed in real situations."
13. (observation) TT5R's son now works for the CSO in an administrative function. His character, personal style and manner of doing things is very much like his father, and this give a deeper insight into TT5R's way of behaving and working – orderly, detail aware,, diligent, pedantic, honest and law abiding.
14. (04/03/2010) A2 in discussion about SM8, TT9 and TT2, they are "all control freaks" and very aware of 'the chain of command'. "It doesn't allow for looking for new ideas, improvements." There is a big fear factor affecting the CSO. "I wouldn't go as far as 'bully-boys', but not far off it; breathing over your shoulder and all that (micro-managing). You come with good ideas, develop proposals for a new process, as asked, put them forward and then nothing. There's no recognition, no thanks, no idea of if or when the proposals are considered, discussed or accepted, or rejected; there's no communication." Because the TMT isn't involved in the development of the proposals (or any emergent tactic/strategy), there is suspicion and scepticism. "If the TMT (TT2/TT9) doesn't get direct control it isn't accepted." In A2's area of the CSO. Because of this there seems to be a reluctance to make changes and improvements , in case it gets either rejected or if implemented affects the QAA (etc.) reports. (If it ain't

broke, don't fix it.) This again is very clearly to do with the 'fear factor' within the CSO.

15. (30/03/2010) In discussions with TT7 about up-dated financial data; "...we try to bury these as deep as possible (within the organisation)."
16. (30/03/2010) In discussions with A3 on asking for some up-dated information; "...we employ on average 10-15 (extra) people each year."
17. (30/03/2010) In the appraisal meeting with SM16, the researcher was warned about being needed physically at the CSO premises, when not on holiday or teaching; "...people notice. You have to be here." But, no real reason or explanation was given as to why I couldn't do my research at some other location. "It's what we do here. You are supposed to be here." The impression was that SM16 was very fearful of what might impact him and not bothered about my situation (work/life/study balance). There were implied threats, if I don't 'play by the rules' (albeit unwritten, unless you count the employment contract). [See SM15's comments about threat rules.] Big fear factor in play within the CSO.
18. (14/04/2010) In discussion with L16 about the new layout of the Library; the group study area is being extended and the journals section being moved to the quiet study area, in a very cramped library. It seems that the library staff were not consulted, they were just told to make the changes. (Students consulted ?) It seems that TT2 saw some very good student library/study facilities at Warwick University and wanted to up-date the CSO facilities. L9 was less cynical and more 'matter of fact'. They always want to make changes and never consult us anyway, so why get bothered about it.
19. (19/04/2010) In discussion with L17 about his leaving the CSO, he said that TT9 is a "hard-liner" and wants to find any reason to allow people aged over 55 years to leave. The implication is that the CSO wants to reduce headcount costs by 'natural' losses of people and at the same time improve the age demographic of the people employed by the CSO. (A statement was made at a previous CSO Comms Session that no redundancies will be made, but of course, that does not preclude reduction in staff numbers and staff costs by other means.) L17 also said that L3 will be retiring soon and there are no plans to replace her. This suggests that the CSO (TT9) is also planning/implementing a structural change in the way the college is organised.
20. (22/04/2010) In discussion with L17, he mentioned the 'history' between TT4 and TT2. It might have something to do with the Spanish property group (TT1, TT4, SM4 TT2(?) and L18). L18 was the original property purchaser. Possibly at a social and informal get-together in Spain, there may have been some 'tipsy-talk', when something was said to damage a relationship.

END]



## Appendix 10 – Self-Reflective Narratives - Validated

### Istel Automation Ltd. (IAL) – 1986 - 1989

IAL was a subsidiary of Istel Ltd. (Both organisations were absorbed by the US AT&T telecommunications company and subsequently sold off.) It was a high-technology provider of automation and communications systems for (piece-part) manufacturing companies (Istel was a spin-off from the Rover Group and its original customers were Rover Group companies – the UK, Midlands automotive manufacturer). IAL was originally part of the Engineering and Manufacturing Division of B.L. Systems (British Leyland was the forerunner of the Rover Group). The IAL offer strategy was very ‘product orientated’ and included systems such as MRP1 (Materials Requirements Planning), which included stock control and re-ordering systems; MRP2 (Manufacturing Resource Planning), which is an extension of MRP1 to include materials (ex. Stock and just-in-time JIT availability), machines (availability and capacities), people operatives (skills mix and availability), customer requirement forecasts, etc. for production planning and scheduling; engineering consultancy; business process simulation; and time and attendance recording. IAL had unique skills in remote site data manipulation and integration over Istel’s own extensive, developing and maintained data communications network. Within two years of the establishment of IAL, at the end of 1987, the business had been re-structured along industry sectors lines (rather than being product orientated) supplying their offers within a CIM (Computer Integrated Manufacture) proposition.

(The technology and business environment was in the era of regulated but soon to be liberalised telecommunications industry; pre-ubiquitous internet facilities; expensive main-frame computers and limited availability of lap-top PCs; and scarcity of mobile phones.)

IAL needed to grow and expand into the perceived potential growth areas of the process manufacturing sectors (because there were some concerns that the current piece-part manufacturing market focus was close to saturation). Process manufacturing has fundamentally different production processes, being batch, continuous, or a combination of these, often with perishable raw materials and finished products requiring ‘lot traceability’. Such process are, generally, inherently more complicated than piece-part manufacturing, requiring more sophisticated planning, scheduling and process control systems. Because of this there were then fewer process manufacturing automation (monitoring and control) systems available to manufacturers in the market place. This provided IAL with a market opportunity with less competition.

A market study was done to assess the potential opportunity for IAL and the marketing and selling resources needed to provide process manufacturing planning, monitoring and control systems. The focus process manufacturing sectors that resulted from the study, in which IAL became active, were: paper manufacture (including security paper, which had interesting additional requirements), food & drink manufacturing, and pharmaceutical manufacturing.

Other dimensions to this growth strategy of developing the market sector focus included acquisitions, distribution channels development, and joint ventures.

### Strategy Development Processes

The strategy development process for IAL at that time involved two main elements: sense-making of the business environment (analysis) and envisioning the current situation of IAL in its environment and the possible future situation in a changed environment (synthesis). The processes involved many informal discussions mainly with the sales force, sales manager, IAL top team and members of the Istel Ltd. top team. There was no formal strategy development process (as per the Dyson SDP model, for example), nor was there any 'strategy rehearsal' or strategy development process modelling undertaken. The environment was very 'entrepreneurial' in a sector (IT – Information technology) that had then few parallels or surrogates business models or development processes with which to compare. Istel Ltd. was driven by a very entrepreneurial, hard-working and visionary achiever, CEO, adept in establishing and growing businesses. The Chairman of the Board was a cautious and prudent, ambassadorial negotiator, with an extensive network of external contacts that complemented the qualities of the CEO.

The sense-making was very sales force orientated, where information was collected via the sales people, either from the 'new business' sales force, that were charged with new business sales from new customers; or, via the 'sales account management' sales force, that were charged with maintaining good customer relationships and increasing the IAL 'share-of-(the customer's) purse' available for IT projects. This was complemented with 'top management team' involvement for clinching deals, solving high-level problems, their network of business contacts, and also via purchased market research information and special internal studies of markets, customers and competitors. There was a mix of planned, continuous market information gathering and ad.hoc. studies for specific tasks.

The envisioning of IAL's current position and the way forward was driven by two main Istel Ltd. strategies. These were to increase the number of non-Rover Group customers and increase the non-Rover Group revenue and profits shares; and to seek to move towards the telecommunications business model of continuous revenue streams from subscription services rather than one-off, term contracts. The former strategy was relatively easy for IAL, because it was set up for this purpose and was already moving towards very different market sectors and customers. The latter strategy was more difficult for IAL to achieve, because of the nature of the business, but was a desirable direction for Istel, to gain fuller utilisation of their main physical asset, their data communications network.

The processes were very informal via discussions, presentations and inputs from a variety of sources, sometimes involving external consultants. Various options were discussed and sometimes structured workshops were held involving ideas generation, option choices and a liberal amount of 'gut feel' and intuition for decision making. Outputs of these sessions were relatively brief documents, which acted as route maps for implementation of chosen options. A simple tool for ensuring that implementation of

strategies were progressing were one-pager, monthly reports, which simply stated what had been done in the month, what was planned for the coming month and any issues that were hampering progress. These and other monitoring devices, such as sales 'pipeline' (showing the estimated progress of prospective business from initial enquiry to signed contract and signed-off delivery), sales forecasts and monthly budget-versus-actual reports complemented the monthly reports. The focus was on action rather than lengthy discussion and reams of paper.

At the end of the period (1989/1990), the IAL strategy development processes included documented plans for growth, market penetration and integrated business strategies for the process and piece-part manufacturing sectors, which proved to be the model for the whole of Istel Ltd. and its various business units in the years to come.

#### Self-Reflective Narrative – AT&T-Istel – 1989 - 1994

Istel Ltd., (previously B.L. Systems Ltd.) was part of the Rover Group, the UK, Midlands automotive manufacturer, and its original customers were Rover Group companies. Istel had developed into a group of seven strategic business units (SBUs) with market facing offers:-

- Rover Division – to service Rover Group companies with their requirements
- Istel Automation Ltd. (IAL) – to service the piece-part and process manufacturing sectors [including MRP, MRP2, Scheduling and Computer Aided Manufacturing (CAM) systems, and – Computer Integrated Manufacturing (CIM) systems]
- Engineering Division – providing IT systems consultancy to industrial sectors; including 'See Why' simulation systems, Computer Aided Design (CAD) and Disaster Recovery facilities
- PNL – Personal Networking Ltd. – to provide PCs and networked computers to businesses
- Travel Services – to provide networked IT systems for the Travel industry
- Financial Services – to provide networked IT systems to the Financial sector
- Health Services – to provide networked IT systems to the Health sector

Istel Ltd. and all the SBUs had developed and been consolidated into a well performing group of companies, in a rapidly developing business environment, with a good competitive position in the UK, and potentially Europe.

Istel was driven by four main strategies. These were; (a) to increase the number of non-Rover Group customers and increase the non-Rover Group revenue and profits shares (= reduce the reliance the Rover Group); (b) to seek to move towards the telecommunications business model of continuous recurring revenue streams from subscription services rather than one-off, term contracts. (This strategy was very important for Istel, to gain fuller utilisation of their main physical asset, their own extensive, developing and maintained data communications network.); (c) to create a strong organisational culture with a keen sense of purpose, which was achieved by offering shares in Istel in lieu of bonuses to all employees; and (d) to seek a significant

alliance partner or parent company to provide the scale and resources to allow Istel to develop internationally into Europe.

[The technology and business environment was in the era of regulated but soon to be liberalised telecommunications industry; pre-ubiquitous internet facilities; expensive (non-networked) main-frame and personal computers (PCs) and limited availability of laptop computers; and scarcity of mobile phones.]

### Strategy Development Processes

The Istel SBU's original strategy development processes (SDP) were developed relatively autonomously by their respective managing directors (MDs), and were 'sales-driven'. The SDP for IAL was more market opportunity focused, and took into account market characteristics, potential target sectors, customers and their needs and competitor intelligence. The MD of IAL was promoted to Istel group head office to a staff role as an element of 'personal development' and to facilitate the adoption of the IAL SDP model and the preparation for the integrated Business Plan. The first stage was to form a Strategy Department, which would facilitate the adoption and adaptation of the SDP model for Istel and each SBU. The second stage was to facilitate strategy development, by building a common language and methodology for developing strategy, and by coaching the SBU top teams in the processes.

The outputs of the Istel SDP, which provided the elements for the integrated Business Development Plan was used to attract the attention of 'suitors', including AT&T (the large US international telecommunications corporation). AT&T subsequently acquired Istel Ltd., which became AT&T Istel, with the purpose of developing the AT&T's networked IT systems business presence in the UK and Europe.

The SDP process developed comprised many elements of the Dyson SDP model, as a planned approach to developing strategy, an approach that was novel to some of the SBUs. The SDP elements used were (a) a study and evaluation of the current and forecast business environment for their market sector, with customer and competitor evaluations; (b) the development of strategy options to reach a desired future aim; (c) a selection process to help evaluate the options and decide on the best strategy; (d) a plan to implement the chosen strategy. The Istel Strategy Department (ISD) facilitated the process at each stage with the top teams of each SBU. The ISD then consolidated the SBU strategy plans into an overall Istel corporate strategy plan, which drove the Istel and SBU performance targets, budgets and personal objectives setting processes.

These processes were repeated each year as part of an annual strategy review, when minor improvements were made to the basic process.

During the period (1989), AT&T acquired Istel Ltd. as part of its strategy to expand internationally and in particular into Europe, because its domestic business (US) was not growing. [This was a period when many North American firms were anxious to have an established European presence, and by the 1980s the UK was an established member of the EU. The UK was seen as the best option for a European regional head office for many.]

AT&T was attracted to Istel, which became AT&T-Istel, because it also offered high value-added data services, with digital technology, seen as the way forward for both voice and data communications (Voice communications had been until recently based on analogue technology.) AT&T-Istel also had extensive practical experience in Electronic Data Interchange (EDI) and Systems Integration (SI), with many large established European based companies.

The establishment of AT&T-Istel eventually meant that the AT&T strategies became a significant influence on the strategies being developed by the AT&T-Istel SBUs. The moves AT&T-Istel had made towards businesses with continuous recurring revenue streams, which were based on the telecommunications model, were particularly attractive to AT&T. The three SBUs, Travel Services, Financial Services and Health Services, and parts of the IAL and Rover Group business, were well in line with the AT&T vision. The other SBUs, PNL and Engineering Division were less attractive to, and less well understood, by AT&T. For these reasons the AT&T-Istel 'corporate' direction was encouraged to adjust the SBUs (mainly PNL, Engineering Division, IAL and Roger Group) strategies towards continuous recurring revenue stream businesses.

#### Worcester City Council (WCC) - elected member – 1994 - 1995

##### Note on Worcester City Council processes and procedures

I was involved with local politics in the 1990s, and was elected a city councillor, but I am now no longer actively involved in that part of public sector life.

The way WCC operated was very formal and bureaucratic, particularly in the full council meetings, as compared to private sector organisations. The main reason for this formality is to do with the democratic nature of (local) government, where all is open to scrutiny by the general public, the electorate. Because of this, all procedures must be legal, honest and open and be seen to be so. Much of the city councillors' work is done in committees (Technical Services, Leisure Services, for example) and sub-committees (Museums and Art Galleries, for example), which are a little less formal but which are burdened with much paperwork and reading and with unsocial working times. The press and public may be in attendance at the sub-committee and full council meetings, and there is a provision for members of the public to participate, but they are only allowed to observe and not allowed to take part in the debates.

The structure of the sub-committee and full council meetings is broadly the same. There is a chair person (an elected member), who sets the agenda, in conjunction with the officers, and keeps order. There is also a secretary who keeps notes and publishes the minutes of the meetings. The secretary, a council officer, and some other employed council officials will usually take part in the meetings as subject area experts and as part of their duties. The members of the meetings put questions to the council meetings via the chair, though for sub-committee meetings this is a less rigid part of procedures. When decisions are made the members of the meetings will vote openly for or against the decision, if there is no consensus, with the chair having the casting vote, if necessary.

Because of the relatively confrontational nature of politics, informal meetings of members, usually along party lines, take place to ensure a common party position is

maintained at the formal sub-committee and full council meetings. The real decisions, lines of argument and the ways these are to be presented at the formal meetings, are made at these informal meetings of the political groups. In this way the informal meetings are a very important part of the strategy development process and the monitoring and control of the strategy implementation.

This mix of informal meetings and formal meetings does not necessarily mean that the formal meetings merely 'rubber stamp' decisions made at the informal meetings, especially as all political parties are present at formal meetings and different points of view are expressed. There are often lively arguments and debates at the formal council meetings. Positions held at informal meetings may be upheld or changed via the debates at formal meetings. It is often the case that most of the discussion, argument, compromise and decisions take place at the informal political group meetings, when positions are taken. It is at the formal committee meetings, where all the political groups are present, and where the main decisions are made.

[N.B. The situation explained above is no longer current. The committees as described above no longer exist as WCC now has a Cabinet made up of the ruling political group and a number of scrutiny committees that study Cabinet proposals in advance of Cabinet meetings. The result of this change is a reduction in debate and democratic involvement. The Cabinet usually has the last word and only a limited number of decisions (the Budget, for example) are decided by the full council, representing all political parties.]

END]

Appendix 11 – Interview Analysis Framework – Strategy Development Process (SDP)

<p>1. Direction setting: Corporate strategic direction and goals</p>		
<p>2. Performance measurement: Learning from virtual and current performance  Learning from current performance measurement</p>		
<p>3. Sense-making: Resources  Managing the organisation  Implementing change  Exploring internal and external environments  Uncontrolled inputs</p>		
<p>4. Creating strategic initiatives: Ideas, innovations</p>		
<p>5. Evaluating options: Models of the organisation  Assessing strategic options</p>		
<p>6. Rehearsing strategy: Models of the organisation  Assessing strategic ideas  Learning from virtual and current performance  Exploring internal and external environments</p>		
<p>7. Selecting and enacting strategy: Learning from current performance  Implementing change  (Considering all outside rehearsal box)</p>		

Appendix 12 – Interview Analysis Framework – Complex Adaptive Systems (CAS Lens)

<p>1. Continuous Varying Interaction (CVI)</p> <p>A large number of people, richly and continuously interacting, locally and remotely, with non-linear relationships, positive and negative feedbacks and are always developing, co-evolving and open to other CAS.</p>	
<p>2. Pattern Development (PD)</p> <p>Whether operating in a stable or ‘far-from-equilibrium’ environment, patterns of behaviour emerge (‘attractors’) spontaneously, from unpredictable origins, which attract further development that can be chaotic, orderly or both (chaordic)</p>	
<p>3. People Factors (PF) (that influence development)</p> <p>Complex Adaptive Systems (CAS) and their components, people in organisations, have histories, which restrict and expand future possible actions, where current conditions can be adapted, despite no one person/group having complete knowledge of the whole CAS.</p>	
<p>4. Self-Organisation</p>	



Appendix 13 – Example Interview Analysis (SDP) – respondent TT4140708

<p><b>1. Direction setting:</b> Corporate strategic direction and goals</p>	<p>“...you’ve got a copy of the corporate plan, you can see it’s very loose.” Re: positioning – “„we’re small, we communicate really well, we listen to people (right the way through the organisation) and we’ve got really good committed staff.”</p> <p>“We are encouraged to work with industry. We’ve always worked with industry; but, we’ll be doing more of that.” “We’ve identified the areas of ‘early years and childcare’, ‘health and social care’, ‘sports’ and ‘tourism’”. “We want to aim at more mature students; probably in mind rather than age.” “Early on we had no focus on where we were going.” “We’ve always kept in the (same) area basically, never out of our main focus.” “The (other) university ran tourism masters courses and basically they were a disaster, so they dropped them and we (saw the opportunity) and started our own Masters in Tourism course (and they’ve been very successful).” “The (other) university is quite happy for us to validate course that they do not have the expertise to look at.” “What we are trying to do is start with our own degrees. Two have been validated already.”</p> <p>The Local Education Authority kept some of the money from the overseas students (which we really needed to resource the courses). This ‘unfair’ situation pushed us down the route to financial independence. Which is why we moved more towards HE, sought TDAP and a name change.</p>	
<p><b>2. Performance measurement:</b> Learning from virtual and current performance  Learning from current performance measurement</p>	<p>“We have got an infrastructure (to support) students that come from (disadvantaged) under-represented communities (within our area).” Referring to our COG students – “The level of their ability when they come in, and what we add in value, I think is quite good (as most go out with a top 10 uni degree)” “We have quite a high profile in QA, we have really good reports on this...”</p>	
<p><b>3. Sense-making:</b> Resources  Managing the organisation  Implementing change  Exploring internal and</p>	<p>Most of DL’s comments were related to sensing the external environment or internal resources.</p> <p><i>External:</i> “...some of the threats are demographics...more people go to universities when there are no jobs.” “There are bubbles of 18 year olds coming in 2012 &amp; 2013.” English unis charging students (Wales &amp; Scotland not) = shift in students =</p>	

<p>external environments</p> <p>Uncontrolled inputs</p>	<p>re-assess options. "... a college down the road was doing degree courses and we thought we could do it for 'early years'." "Staff tell us... or, we find out from publications." "We are way behind some institutions (with online based learning)." "The relationship with the other university will be reviewed in 2012. That's a threat isn't it?" "The profile of the overseas students have totally changed because nobody can afford to come for 4 years, very few can afford to come and there are lots of other universities (competition). So now we find that the average stay of our students is about 2 years. There is no inherent growth; you have got to keep replacing them every year." "Students in Hong Kong that did the HND couldn't afford to come to the UK, so we set up overseas block teaching over there." "I think we have peaked. We may go to China or India [to recruit students] but It's going to be so big that we don't know if we can actually deal with it at the moment [resource limitations]." "It's very hierarchical in China and India. You have to go to visit these places with RL or EM [they need to be at the right level] + Guanxi</p> <p><i>Internal:</i> "...we listen to people (right the way through the organisation) and we've got really good committed staff." "We have a very high number of people from under represented (disadvantaged) communities, where they were presumably the first generation to go to university." Our (geographic) location is good – "we are lucky because every bus comes through the city centre." "We do FE and HE ....We've got the infrastructure to do that...and we feed them through the entire (FE and HE) education (system/process)" "I think our infrastructure and quality control is" [up to the other university's standards].</p>	
<p><b>4. Creating strategic initiatives:</b> Ideas, innovations</p>	<p>"Well design something like pre-masters; they are not good enough to go to masters, so we'll develop a pre-masters course. They do this in Australia." "The principal said, why don't you offer your masters out here ?; so we did (with the other university's approval)"</p>	
<p><b>5. Evaluating options:</b> Models of the organisation</p> <p>Assessing strategic options</p>	<p>"We should be looking more at online based learning in our sector (open learning and distance learning)</p>	

<p><b>6. Rehearsing strategy:</b></p> <ul style="list-style-type: none"> <li>Models of the organisation</li> <li>Assessing strategic ideas</li> <li>Learning from virtual and current performance</li> <li>Exploring internal and external environments</li> </ul>	<p>“...we started offering degree courses (to give it a try)” “We started it [block overseas teaching] and it worked very well, and it grew from there.” “Now we’ve got to try 3+1 [3years in China + 1year here in the UK]”</p>	
<p><b>7. Selecting and enacting strategy:</b></p> <ul style="list-style-type: none"> <li>Learning from current performance</li> <li>Implementing change</li> <li>(Considering all outside rehearsal box)</li> </ul>	<p>No data</p>	

<p><b>1. Continuous Varying Interaction (CVI) (Dynamic Structure)</b></p> <p>A large number of people, richly and continuously interacting, locally and remotely, with non-linear relationships, positive and negative feedbacks and are always developing, co-evolving and open to other CAS.</p>	<p>“The thing we had last year (2007) on salaries and evaluating peoples’ roles.. the piece of work we did where not everybody had a job evaluation and what that has caused is a little bit of uneasiness with some staff.”</p> <p>“We are one of the most successful colleges in the sector. I think we are small. We communicate really well. We listen to the people right down the organisation and a lot of new things we do come from people.” Considering internal communications – “Well I think people in small work groups, committees....people send emails saying I think we should improve this...Staff who are external examiners, then they come back and they say that do you know that so and so have this approach to this and that approach to that, people tell us.” “I think we have got a really good group of staff who think about what they are doing.”</p> <p>“We’ve always worked with industry here because all our courses are vocational.”</p> <p>To do with sensing competitors – “Staff tell us basically, or we find out from publications.” “We don’t want to be competing with the business schools, not that we ever would, but some people in the business schools see us as competition. Birmingham Uni has priority over all the courses that they run. We have to ask if we want to run a course in the same area, with a rationale.”</p> <p>To do with relations with Birmingham Uni – “we’ve got a mid-sessionary review where they (Birmingham Uni representatives) come to spend the day with us. They talk to students, the management team and staff who are involved with teaching. They also bring an external (representative from Surrey Uni). They talk to people, write a report and make recommendations to make any changes, that’s what usually happens. This is our 4<sup>th</sup>. Or 5<sup>th</sup>. One.”</p> <p>Via a catholic institution in Hong Kong, “the principal said why don’t you offer your masters degree out here (Hong Kong) so, we went to Birmingham Uni and they said as long it was recognised as extra (to the courses og Birmingham Uni, and not competing) it was OK”</p>
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<p><b>2. Pattern Development (PD) (Process)</b></p> <p>Whether operating in a stable or ‘far-from-equilibrium’ environment, patterns of behaviour emerge (‘attractors’) spontaneously, from unpredictable origins, which attract further development that can be chaotic, orderly or both (chaordic)</p>	<p>Referring to the development from FE to embrace HE as well – “<u>The college had no focus on where we were going</u>...there was no HE at all it was all FE.”</p> <p>Referring to the early years of EM and combining departments into one – It is probably by default, but what happened was that we went from two faculties to one in 1996...then the directors got talking and we developed FE an HE courses.” (N.B. I think there was budget bickering and turf wars then, and EM wanted greater efficiencies)</p> <p>Referring to the move into HE – “So the idea was that we developed a Foundation degree and HND for higher level teaching assistants.” “We’ve always kept in area basically, never out of main focus, even with business we have kept in the service sector.”</p> <p>After the first international students from Libya – “Then we decided we would like to try other countries.... We were allowed to keep all the money right the way through the 1990s and what we were doing, we were improving the building and started putting in better kitchens.”</p>
<p><b>3. People Factors (PF) (that influence directions of development)</b></p> <p>Complex Adaptive Systems (CAS) and their components, people in organisations, have histories, which restrict and expand future possible actions, where current conditions can be adapted, despite no one person/group having complete knowledge of the whole CAS.</p>	<p>Was a senior lecturer at Radborough College (?), Shrewsbury. Before that “worked in hotel management (food and beverage) then industrial catering.” He then developed and ran courses at BCFTCS. “The thing we had last year (2007) on salaries and evaluating peoples’ roles.. the piece of work we did where not everybody had a job evaluation and what that has caused is a little bit of uneasiness with some staff. ...people have not mainly got the role they thought they should have get. We have got to handle it (job evaluation) very carefully and that is something we could have foreseen.” “We have a very high level of people from under represented communities, where they were probably the first of the family to go to university...we have got a good infrastructure to support those people.” “A lot of universities don’t do any FE, but we’ve got the infrastucture and we are able to feed them through the entire education system.” “We’ve always been in childcare, since the college opened, there has always been qualified nanny courses.” “We developed a foundation degree based on the HND for higher level teaching assistants....the Director of Education sent us</p>

probably about 200 students each year if not more.”

“We’ve always kept in area basically, never out of main focus, even with business we have kept in the service sector.”

With regard to the relationship with the University of Birmingham, “we’ve got a mid-sessionary review where they (Birmingham Uni representatives) come to spend the day with us. They talk to students, the management team and staff who are involved with teaching. They also bring an external (representative from Surrey Uni). They talk to people, write a report and make recommendations to make any changes, that’s what usually happens. This is our 4<sup>th</sup>. or 5<sup>th</sup>. one.”

“We’ve always had international students. Prior to 1989 they just paid their own fees and they mainly came from Commonwealth Countries, Malaysia and Hong Kong, the (UK) government decided that. It became quite lucrative.” BCFTCS was taking more and more international students, but the Birmingham City Council as the LEA took more of the money but wouldn’t let us spend it (for investment) “If you hadn’t spent your money, (budget) your money went back (to the LEA).” ***N.B. This is the trigger for the need for financial independence.***

“We will design something, like pre-masters, for if the students are not good enough to go on directly to a masters...that’s what they did in Australia (sensed from a visit there)...we then came back and got one validated and we’ve been quite successful at that I think.

Via a catholic institution in Hong Kong, “the principal said why don’t you offer your masters degree out here (Hong Kong) so, we went to Birmingham Uni and they said as long it was recognised as extra (to the courses of Birmingham Uni, and not competing) it was OK”

As far as entering new geographic markets is concerned, with regard to international students “I think we have peaked on numbers, we may go to China or India, but it’s going to be so big that we don’t know if we can actually deal with it at the moment. It would be an area we could develop.” Concerning integrating block and international students “No, we’ve got to try and do the 3+1

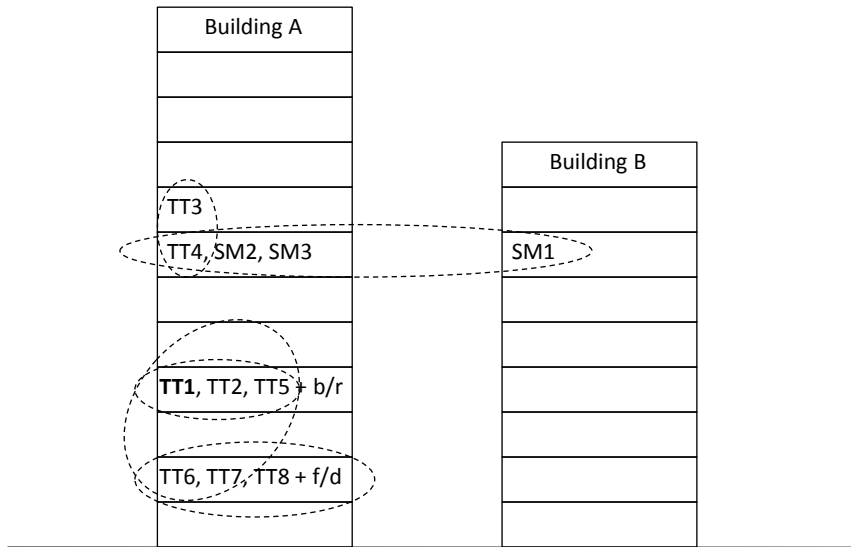
	<p>course” first, 3 years in China and the final year in the UK.</p> <p>Concerning working with top team members; “They work with me. RL speaks with them (high ranking educational institution managers), EM. I can’t visit them all, but you need to have vice principal (level) really. It’s very hierarchical in China and India.”</p> <p>N.B. Guanxi. “We take it so far; then see if it’s going to be a goer... for every 2 good projects there are 10 that are a waste of time. SCh will see if it has a look of credibility about it. We (DL &amp; SCh) say what do you think of this place, and I say well, it has worked with so and so before, so we say let’s hold back a bit, let them come back to us.” “We’ve never taken large numbers like some universities have done” (= cautious)</p>
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4. CAS 16 – Self-Organisation

No data

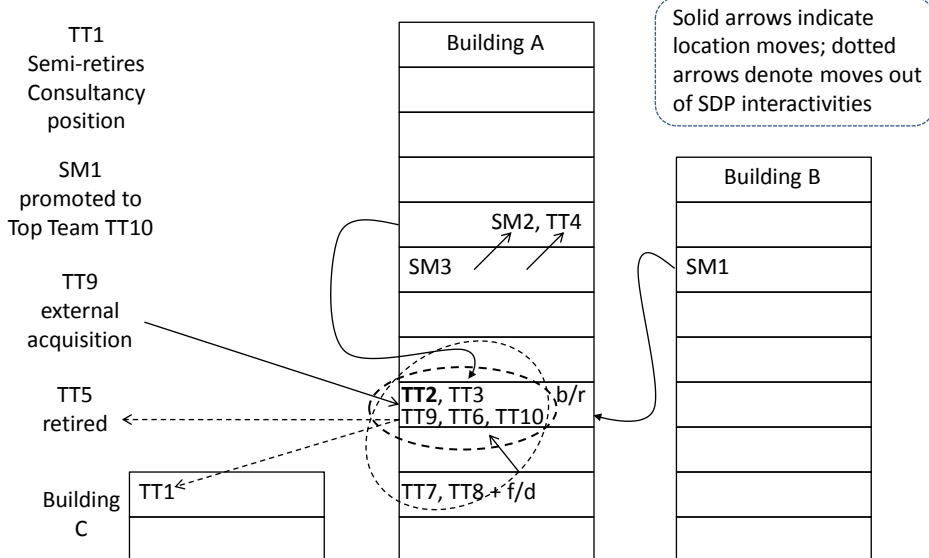
Appendix 15 – CSO TMT Locations – ‘Old’ & ‘New’ Regimes

**Old ‘SMT’ composition and location**



Dotted line ellipses denote main interactivity groupings of people  
 Rectangular stacked boxes represent floors of the buildings  
 b/r = boardroom; TT = ‘Top Team member; SM = Senior Manager; f/d = Finance Dept.

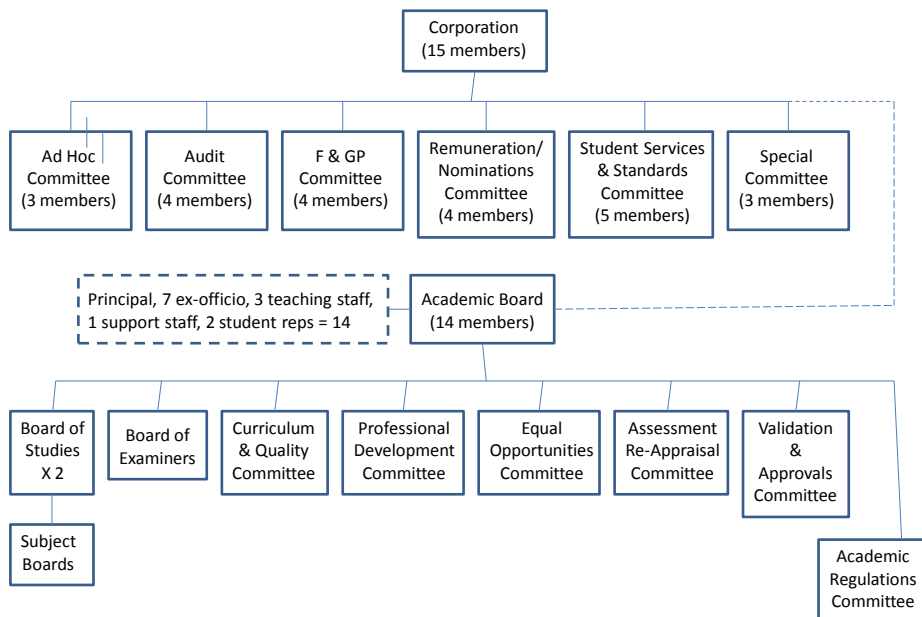
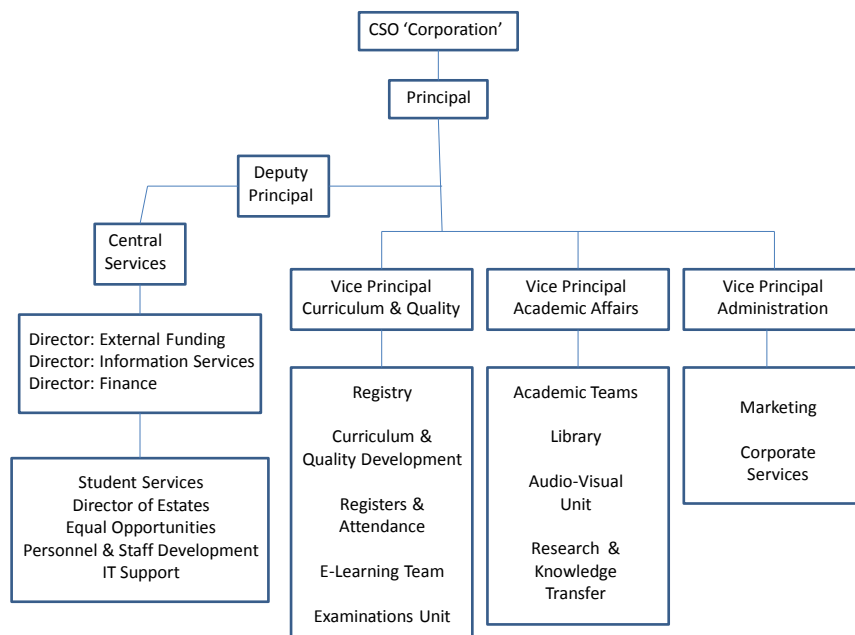
**New ‘EMT’ composition, location and ‘Top Team’ moves**



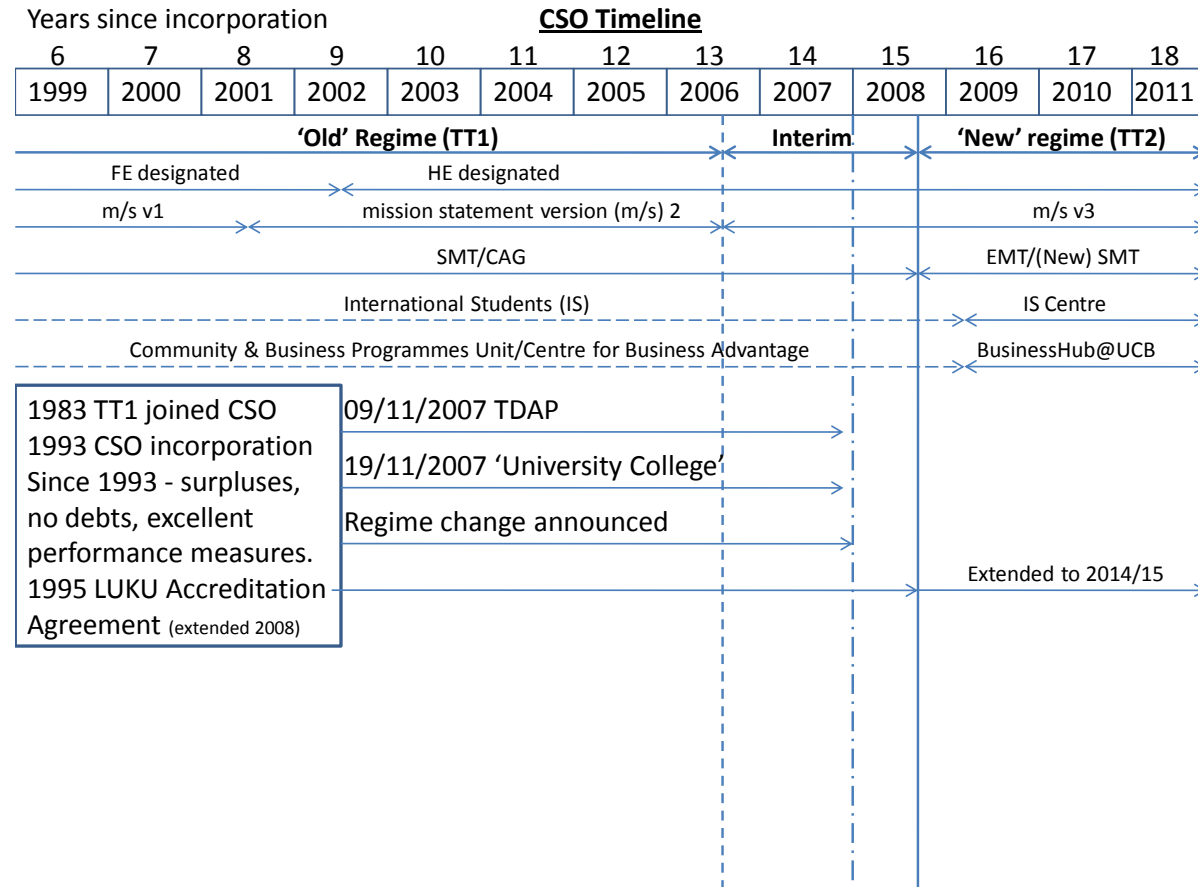
Dotted line ellipses denote main interactivity groupings of people  
 Rectangular stacked boxes represent floors of the buildings  
 b/r = boardroom; TT = ‘Top Team’ member; SM = Senior Manager; f/d = Finance Dept.



## Appendix 16 – CSO (formal) Meetings Structure



Appendix 17 – CSO Timeline





Complex Adaptive Systems (CAS)	Complex Systems	Complex Responsive Processes	Complex Evolving Systems	Complex Adaptive Systems		
Notes/Explanations	Cilliers - 1998	Stacey - 2001	Mitleton-Kelly - 2003	Snowden – 2007	Buckley - 1968	Eoyang - 2001
	<i>Cilliers, P. (1998) 'Complexity and Postmodernism: understanding complex systems', Routledge, Abingdon, UK.</i>	<i>Stacey, R.D. (2001) 'Complex Responsive Processes in Organisations', Routledge, London, UK (* = structural; ° = properties)</i>	<i>Mitleton-Kelly, E. (Ed.) (2003) 'Complex Systems and Evolutionary Perspectives on Organisations', Elsevier Ltd, Oxford, UK</i>	<i>Snowden &amp; Boone (2007) 'A Leader's Framework for Decision Making', HBR November, pp. 69-76</i>	First published in a compilation book (1968) and subsequently reprinted in E:CO (2008). States Buckley's Six Principles	<i>Eoyang, G.H. (2001) 'Conditions for Self-Organising in Human Systems', Part of a PhD thesis The Union Institute and University, Ohio, USA (unpublished)</i>
A The distinctions are not clear. Cilliers focuses on human individuals. Stacey focuses on relationships between agents.	Large number of <u>elements</u> (human individuals)	*Comprises a large number of individual <u>agents</u> (= people and relationships connections )		Involve a large number if interacting elements		High dimensionality – human complex systems can be understood in terms of a large number of inter-related <u>variables</u>
B These mean continuous varying interaction.	Dynamic and continuous interactions	*Endlessly repetitive interaction		System is dynamic (and synergistic)	2. Morphogenesis - dynamic interaction internally and with the external environment.	
C Continuous dialogue, with high-to-low quality variety and changes therein, developing <u>relationships in a non-linear way</u>	Rich interactions	*Iterative, recursive, self-referential and agents are continually adapting to each other	Rich, <u>non-linear</u> connectivity within the CAS - N.B. degree of connectivity and interdependence		3. Continuous varying interaction. Patterns change and re-organise.	
D Unpredictable cause/effect relationship	Interactions are non-linear	*Interactions are non-linear	See 3 and 8 ↑ ↓	Interactions are non-linear		Non-linear causality
E Local connections (can be virtual) produce richest interactions (developments)	Interactions are short range, influence is wider	*'Local rules' of interaction (no system-wide rules)				
F Developmental and restraining feedbacks	Positive and negative feedbacks loops <u>within the interactions</u>		Positive and negative feedbacks			Discontinuity – CAS exhibit discontinuous change (unpredictable)
G See above 2-6 – these (above) produce on-going variety in the relationships 'rules'.		*On-going variety in the (relationship) 'rules' are generated by random mutation and crossover replication.	Co-evolution of agents, systems and environments.			
H M-K sees CAS as more than open systems, they interact and are interdependent of each other, and co-evolve.	CAS are open systems - also open to the eco system		Rich, <u>non-linear</u> interdependence with other CASs			Dependence on context – they are intimately related to their environments
I In periods of turbulence, CAS can cope, adapt, survive and prosper.	CAS operate far from equilibrium providing activity and energy for change* - <u>entropy leads to atrophy</u>		Far from equilibrium - CAS can also choose to push towards/away from it			
J The CAS origins (also of the actors) influence and affect development and adaptation. Every change has consequences, often unforeseen.	CAS have histories, which influence current behaviour and future changes.		Historicity and Time and Path Dependency means lock-ins to current situations and lock-outs to future developments	System has a history, elements co-evolve with one another and this is irreversible. Agents and systems constrain each other, outcomes cannot be predicted.		Sensitive dependence on initial conditions, differences can be amplified, or not (unpredictable)
K This relates to 5 above.	Individual elements/agents are ignorant of the whole system, because the system is too complex in its dynamic interactions no one element/agent can comprehend it					Massively entangled levels – CAS involve multiple levels of structuration, where each level may influence other levels and the whole and vice versa
L M-K considers the 'space' into which CAS could possibly develop bearing in mind the other CAS characteristics.			Exploring the 'Space of Possibilities' – by 'exaptation' - adapting existing conditions		4. Balance of drive to control and self-regulate, with positive and negative feedbacks, creativity and learning. Only <u>variety can create variety</u> .	
M Stacey considers 'attractors' which are factors that push CAS towards or away from development routes and they can take many forms emerging from anywhere.		° 'Attractors' may take on a number of dynamic forms.° 'Attractors' can be paradoxically both stable and unstable, simultaneously, under some circumstances - 'chaordic'				
N Unpredictable emergence occurs in the attractors and in the patterns of order of the CAS, which is recognised as 'self-organisation'		*Coherent global patterns of order will emerge spontaneously as they act according to the local rules, constituting 'attractors'. °With diversity and variety, novel attractors emerge, which is radically unpredictable	Self-Organisation and emergence of new order (see 8)		5. (Self-)selection and preservation of the possible varieties, based on trial & error and learning.  6. Socio-cultural selection processes of structure and processes, a continuous morphogenic process with cultural aspects.	
O Snowden & Boone's view				Hindsight does not lead to foresight, without constant changes (unpredictable)		
P °Buckley's view - (Cilliers also mentions 'energy')					1. There is stress, tension and 'irritability' driving for change - a natural human characteristic.	