Towards a POSIT-ive Systemic Perspective of Strategic Management: A Natural Language Approach

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Abstract
The study of top management decisions in firms has led to a variety of approaches to understanding the processes involved. These have been criticised for their partial perspectives and failure to lead to an holistic, integrative approach to the complex mechanisms in managerial and organisational processes. Here an organic approach to the systems specification of the firm in its internal and external context is outlined. Based on a parsimonious, entry level universe of discourse - POSIT 82555, 25 terms of general relevance to any firm, summarised by the mnemonic - a classificatory schema is outlined. This is both accessible and appropriate to all the levels of management in a firm. The conceptual set enables simple specifications which ultimately combine into complex systems. The appropriate specificity in language and visual form, linked to an extracting and editing medium, facilitates management communication, coordination, analysis, implementation and control. Natural language and graphical utilisation of Express and Express G is the key to the implementation.

"*The limits of my language* means the limits of my world" Ludwig Wittgenstein 1921

Introduction

Strategic management must take a holistic view of the reference firm (RF) if it is to have the necessary knowledge base to fully understand the existing situation, the forces impinging on it and the ways it might be adapted. In principle, strategy as purposeful action to secure desirable objectives is operative in all parts of the RF and is potentially contributed to by any of the managers. There is typically a hierarchy of strategic decision making with more senior managers entrusted with decisions of greater scope and significance. Lower levels will be nested in the higher levels. However, the well known problems relating to both top down and bottom up management planning styles in terms of the necessary syntheses across and between the various levels suggests the desirability of a coordinated approach. Coordination of hard systems which are each fully specified with metric elements in common provides only part of the necessary synthesis.

The challenge of strategic management stems from the conjunction of environments, both within the organisation and external to it, which are complex. There are many interactions between parts of the RF and their relevant environments most of which are not automatically accommodated by hard systems. Rather there is a tangle of soft systems with ill defined relationships, non metric information, uncertainty, disparate perceptions, unshared knowledge, competing or conflicting objectives and many other features which necessitate an exercise of judgement [Checkland, 1985]. Even judgement is likely to be in increments and subject to modification as an attempt is made to feel out the relevant issues and to impose some sort of order on the complexity. The time spent by executives in brief and sporadic

communication with a wide number of contacts is evidence of the attempt to reach an accommodation with unfolding events and signals. Managers form their own mental models of their task environment and exercise a considerable discretion in precisely what they do, an approach which has established management as art rather than science and which has often conferred such a premium on relevant experience for the incumbents in a particular role or level of management.

It is these features which have impeded prescriptive approaches to strategic management with difficulties both in formulating appropriate conceptualisations and in securing their adoption. Off the shelf models have only a limited role [Prahalad and Hamel, 1994].

One approach that is able to introduce some form of order is to take a systems perspective [Ashby, 1956, 1958; Beer, 1956] both of the RF and the environment with which it interacts. Systems analysis introduces a hierarchy of systems concepts which broadly describe by scale. The RF in this conception is a smaller part of a larger system and larger systems. The RF is itself, however, an aggregation of sub-systems which integrate to determine the character of the RF as a system itself. Details of component and aggregate systems may be introduced or abstracted from as the focus of enquiry necessitates. In principle, both soft and hard systems can be integrated and, in a sense, they must be because the use of hard systems may involve embedded soft systems.

Systems may be considered in terms of the number of the elements of the system and the linkages between them. Greater complexity arises from increases in both. An order of complexity is quickly reached, however, even in simple systems, which is inimical to ready understanding, to analysis and to putative ideas to influence the system. System complexity for the RF is reduced by the over-layering of structural concepts which may or may not be part of the original (potentially) full description of the RF systems. Thus organisational structures such as hierarchy, divisionalisation, sectors, product lines, geographical areas, etc, enable partial decomposition of the system. This process of decomposition is extended by considering functional areas within any (sub) system in the RF. The conception of the RF as an integrated system dealing with finance, production, personnel and marketing, for example, still allows separate consideration of these sub systems. In principle, the entire (sub)system of the RF may be discerned at greater levels of **specificity** - a process which in a sense gives greater clarity to just that part but removes it further from a holistic view.

One way of considering the performance of the RF is to question whether it is employing the appropriate level of specificity both in terms of the precision of its focus and the concepts and information deployed. Is there an adequate understanding of the scope and ramifications of the changes which beset it or are created by it? This is to ask if there is ***requisite specificity (RS)*** [Calori *et al* ,1994]. The answer must arise from within the RF itself in relation to any perceived problem or necessitated response to (environmental) change. In this sense the managers in the RF effectively choose, or perhaps find, their own RSs. These, however, are not necessarily the RSs that are matched to other levels in the RF nor the appropriate RSs for the RF as a whole. Disparities in RS lead to dysfunction.

A requisite specificity, of a possibly **different** kind, is selected by external analysts in their consideration of the RF or other firms. It is essentially the analysts' selection of the RS from the meta-learning of real organisations that defines the knowledge base broadly classifiable as 'strategic management'. But as the literature amply demonstrates there are differing selections of requisite specificity in concepts, models, scale and sphere of application which can cause analysts to be fundamentally

divided and in some cases disillusioned. They are wary of partial approaches but the fully integrated conception is elusive.

Refocussing is possible and may be desirable through the study of organisations' own attempts to grasp the nature and significance of strategic management. Significant work has proceeded to map the **cognitive maps** of the individuals and groups that comprise the senior management of certain firms and organisations. Characteristic features of these endeavours are detailed and prolonged interviews with participants and a sequential procedure to successively define and refine the **Universe of Discourse** (UoD) to reduce the cognitive complexity to a scale that is more comprehensible to all concerned.

In a different approach, data reduction techniques, such as factor analysis, have been employed to identify (and then to label) the salient combinations of relevant constructs through the administration of questionnaires consisting of batteries of questions covering many of the descriptive, behavioural and analytical dimensions of management activity [Piercy and Morgan, 1994]. Such responses as are elicited, at either individual or group level, enable all concerned to gain insight of the processes and issues involved in complex environments. Again there is the filtering of a complex whole into a subset of related variables and the identification of distinct factors.

Whilst both approaches, as processes for eliciting subjects' mental models, deliberately seek to avoid the imposition of the analyst's **frame of reference,** neither are readily amenable to *extension and adaptation as the process unfolds* nor when it is complete. The end point is essentially imposed by the researchers and the *re*construction of the dynamics of the process is either impossible or contrived. Indeed, after the process the **record** of the application of the first method - in its widest sense of transcripts, flow diagrams, conceptualisations, inter-relationships, difficulties, reactions, hopes, aspirations etc - may be nearly as complex as the *unstructured* phenomena which prompted the investigations. In the case of the second method these features are absent.

In the next section some account of efforts in this area are more fully described. Nevertheless, what is desirable is that the conjunction of the appropriate sets of concepts, as it were the **matched** frames of both analyst and subject, are obtained and processed for mutual benefit. This brings back the relevance of **requisite specificity**.

Experience

The choice of requisite specificity is the prerogative of the analyst and / or the executives - particularly the CEO - of reference firms. From the latter perspective Priem and Harrison consider a range of 'techniques for soliciting and analysing executive judgements in complex, ill defined situations most typical of strategic problems' [Priem and Harrison, 1994, p313]. The techniques they review are concurrent, rather than retrospective, and are aimed at eliciting the mental set of executives by either determining the processes used and the variables considered from the analysis of an **unfolding** decision (composition method) or from a **revealed** decision from the presented alternatives at each stage of the decision (decomposition method). In the latter case the components are weighted to summarise the executive's decision.

An important distinction between the two approaches is that the relevant variables in the decomposition method are pre-presented by the analyst - which partially imposes a frame of reference on the subjects. Composition methods elicit a

previously unknown set of variables which give a potentially greater set and a richer conceptualisation. On the other hand, there are a range of practical and theoretical qualifications to the methods. For instance, in **verbal protocol analysis**, where tape recordings of a verbalisation process are subsequently coded into appropriate concepts and then temporally and / or logically sequenced into flow diagrams, there may not be sufficient coherence to obtain a diagram/map despite a highly labour intensive process [Calori *et al* ,1994].

Information search techniques require the analyst to present from a prestructured view of decisions the executives' requests for information on the dimensions of the problem. Thus the order of the requests, the significance placed on pieces of information, the time spent on them reveal the executives' use of external data to give some indication of internal decision making. Again the structuring and presentation of the information involves the imposition of the analyst's frame of reference.

Cause mapping seeks to elicit the executive's implicit theory of the firm by constructing appropriate causal networks - etiographs [Bougon et. al., 1977] - where previously agreed entities used by the executive are causally related. The ***n*** entities are arrayed in a square data matrix and the executive ascribes causation between entities as perceived positively or negatively. A weakness, however, is that the interactions between entities cannot be assessed or quantitatively processed.

It is from such research and depiction that the **synthesis** across different individuals' mental maps, the aggregation of group consensus maps and comparisons of the conceptual complexity of maps must follow. If top management teams and the CEO - together or separately - are 'the brain of the organisation' and employ a **dominant logic** [Prahalad and Bettis, 1986] the mental maps may be a means to capture that dominant logic. To the extent that one or more dominant logics must change in the face of transformation elsewhere and new dominant logics must emerge, the **process** for that accommodation and the realisation of the new logic(s) must be found and any relationship to the old thoroughly understood. This in turn has led to alternative conceptualisations of the characteristics of the systems under investigation. Two radically contrasting approaches both currently providing rich insights may be identified as those involving chaos and learning.

The perspective of **self-organising processes** "offers a comprehensive theoretical concept of reality where behaviour can be understood by looking at the interactions of top managers and other actors whose behaviour is governed by deeper rules that have emerged in an evolutionary manner" [Romme, 1995, p11].

Self-organising systems are both **closed** - with the use of an existing set (repetoire) of rules - and **open** as the repetoire changes. "Breakdown of old rules is triggered by major unintended consequences of induced action, whereas the formation of new rules is triggered by autonomous actions bringing new cognitions to the team" (p15). More generally the study of self-organising processes "may stimulate top leaders to become more aware of the deeper patterns underlying their behaviour. If they learn to "see" the often implicit patterns in the stream of events, actions and processes they are part of, they will be more able to respond timely and effectively to strategic problems" (p31).

Chaos theory provides a rationale for diverse views which are respectively based on conceptions of *order*, within the complex internal and external systems which support equilibrating tendencies, and *disorder* which impedes the securing of desirable outcomes. Chaos theory with its analysis of order and disorder and how instability within bounds can nevertheless in certain circumstances lead to chaotic

turbulence demonstrates that small as well as large influences/change can be important and that these can be both within the system or impacting on it from outside [Parker, 1994]. The implications of this view for organisations is that the future is inherently unpredictable. Any component part of change within or without the organisation may have an impact in unpredictable ways. The plans to achieve desirable outcomes must be flexible and adaptive to new influences. Planning, or any other aspect of the organisation's behaviour, should not be rigidly controlled in the belief that somehow it "is right". In order to get the creativity which frees the organisation from the detrimental effects of being locked in 'group think' and 'management by strategic recipes' it is necessary to ensure that diversity and adaptability are present in the RF.

The efficacy of methods to achieve greater understanding of executive judgements arguably may be evaluated against the criteria of descriptive relevance, operational validity, non-obviousness, timeliness and goal relevance. [Thomas and Tynon, 1982]. To these criteria a range of **additional** desirable features may be necessary to widen the conception of relevance. Thus procedures need to pass elementary tests of communicability, ease of operation, adaptability, comprehensiveness, recordability and accuracy in the transposing of mental activity of individuals to others.

The process of strategy conception must not be detached from the related processes of strategy implementation. It is desirable that these are dovetailed into a unified conception. Which is to state that planning should not be detached from plans. The consequences of proposed options should be comprehensively evaluated before adoption. This depends on the holistic view with an understanding of the necessary interrelationships and dynamics within the RF. In short, a full systems specification.

POSIT

The approach adopted here is to conceive of the appropriate systems specification emerging from the RF itself. The path to realising this ambition depends on developments from an existing 'situation' in the RF and with full recognition given to the extant set of managers, who, of course, have defined roles.

Levels/lines of management are typically empowered to exercise decisions within 'tolerance zones' with reference to higher authority as necessary. This is predicated on an accepted organisational structure of the RF and tailored to the personnel employed.

What managers have in common is language though they will exhibit individual philosophies and style. The characteristics of the individuals and what they do and have done is a contributory set of inputs into some aggregate notion of corporate style (culture) and philosophy which in turn will be reflected in the design and characteristics of component sub-systems - both hard and soft.

In principle, language can describe the distinctive features and competencies of the RF. Language is the medium of thought even in the specification of hard systems - though typically communication here will be by different means - language is the medium of the RF. Language concept interrelationships will typically have visual equivalents, essentially these are the spacial and symbolic equivalents of the full language specification of the RF. Interconnectivity between language and spacial equivalents provides an efficient communication method and record.

Experience shows that simple diagrammatic representations - mind maps, Venn diagrams, cross-tabulations etc. - greatly enhance the clarity of discussions when an appropriate series of concepts are the focus. Such procedures seem to work

well for different levels of analysis though the subsequent inter-relation of levels dramatically increases the complexity as indeed does the simultaneous or sequential use of several concepts.

One way of limiting the potentially destructive effects of complexity is to adopt as a frame of reference a simplified set of concepts which are essentially non-technical, have familiar meaning as natural language and which can support quite complex conceptualisations especially to the degree that they are expandable with their own implied glossaries of related concepts. In short an appropriate UoD must be found if managers' knowledge/mental models are to be articulated and exchanged across functional boundaries within the RF [Davenport *et al*, 1998]. The UoD must both facilitate description but have capacity to enable the more complex dynamic interrelationships to be specified.

A twenty-five concept framework - an entry level UoD - has been developed to both describe and present an analytical framework for any RF. The selection of concepts is neither disciplinarily nor functionally specific. Rather it conceives of the RF in natural language terms, on the premise that disciplinary details or corporate aspects can be entered as necessary. The language used is of an order of resolution to embrace other terms, and seeks to give a *broad* representation of relevant concepts. As language the entire set is comprised of nouns, though some of these will support their own glossaries of appropriate verbs. The selection is conveniently summarised by the mnemonic POSIT 82555, (8-P's, 2-O's, etc) which is portrayed in Figure 1 as building blocks to emphasise their developmental characteristics.

PHILOSOPHY	PEOPLE	POWER	*PRODUCT*	PLANNING
ORGANISATION	OBJECTIVES	*PRICE*	*PROMOTION*	*PLACE*
SITUATION	STRATEGY	SPECIALISA-TION	STYLE	SYSTEMS
INVOLVEMENT	INFORMATION	INSTITUTIONS	IMPLEMENTA-TION	INNOVATION
TACTICS	TIMING	TECHNIQUES	TARGETS	TRANSACTIONS

Figure 1 : POSIT concepts

The UoD can be initially employed to *outline* the conception of the RF. In essence, the RF is conceived as an **organisation** seeking acceptable levels of **transactions** (**products** times **prices**, at **places** with **promotion**) to which **objective** it deploys **people**, **information** and marketing and other **systems**. In an **institutional** context of competition, there is **specialisation, innovation** and characteristic **styles** of **implementation**. The constraints of the institutional context (stakeholders etc) impose requirements on the financial systems related to the transactions between all the people both within the organisation and outside it. **Planning** systems modify any **situation** through **strategy** and **tactics**. Information, **techniques** and **timing** contribute to the specification of **targets**. **Involvement** by/of people and their **power** contribute to the **philosophy** of the organisation [Driver,1986; Driver and Louvieris 1998].

The preceding paragraph is an outline description of the RF as an organisation as a whole. Any of its functional areas or divisions etc. can be similarly treated in overview though necessarily there will be a different ordering and emphasis. For any

of them, the institutional characteristics are partially determined at corporate level as indeed will many of the operational power relationships.

A brief indication of how this simple conceptualisation rapidly escalates into realistic complexity is outlined. POSIT is a 25 concept set. Each element is related to greater or lesser extent at any time to other elements. Thus a 25X25 matrix with cross relationships of connectivity gives 625 possibilities. The connectivities are not definitional but organic relationships so that the full matrix is relevant (as a square matrix of definitions less than half would be relevant). Each operant cell entry is a means of specifying a relationship, or embedded sub system. The POSIT matrix applies to each of the component parts of the RF (and externally), so there are many matrices. All this is with a static conception. The introduction of time periods with their (differing) interconnectivities and therefore different matrices soon potentially leads to very complex specifications. It is for this reason, as is discussed below, that the property of the recursiveness of many of the component relationships is so important ; in particular the inheritance of one **situation** from its predecessor.

As a result of experience the RF will have evolved not just an organisational structure but a characteristic set of sub-systems which may be usefully integrated into processes. These will be slow to move features of the RF. Processes will be important **systems** concerned with such functions as planning cycles and procedure, environmental scanning, compliance with legal and ethical standards, reporting conventions and practice etc. Processes are sub-system and sub-organisational features which characterise the RF.

The RF is conceived as a system within a system and comprised of sub-systems. Organisation parameters, including objectives and systems, give power to management at different levels, which effectively defines their tolerance zones. Departure from these either involves higher management in a pre-conceived exercising of authority or some form of exceptional action. These actions may be regarded in terms of the planning parameters of the organisation set through processes; themselves the articulation and adaptation of experience overlaid with intention and expectation. In short, the (partial) expression of corporate philosophy and style.

In the evolving existence of the RF a key factor is relatively little change: stemming from the predetermination of slow to move features of context and process: thus the events stream is characterised by recursiveness, most situations are heavily influenced by antecedent situation. On this basis the organisation can define authority levels - the tolerance zones - for its managers.

Significant change, which may be the result of the aggregation of small effects, presents management with new situations. Thus situation is reserved as a term for managerially significant change. Even these situations are likely to be conceivable and so in the integrated well managed firm with appropriate systems the change will be within the ambit of contingency plans. All else is crisis management.

The POSIT approach essentially proceeds by the successive consideration of situations. Situations are themselves determined by context state variables and extant processes. This is outlined in Figure 2.

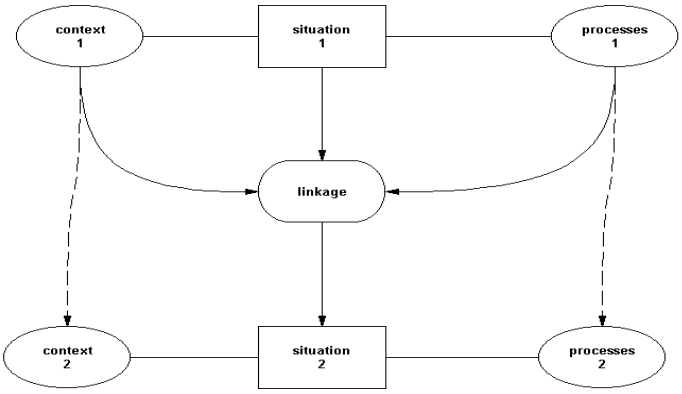

Figure 2: The Situation Stream

A new situation may be usefully conceived when key indicators are or are about to depart from the tolerance levels set within existing processes for those indicators. Situations thus are specified not merely because some things are changing - a fact of life - but because change is managerially significant. The situation stream (1,2,3,...) is thus the result of endogenous change, possibly as the RF responds to its perceptions of external changes, External changes have impact only when they are the cause of internal responses - otherwise by definition they are/were not significant.

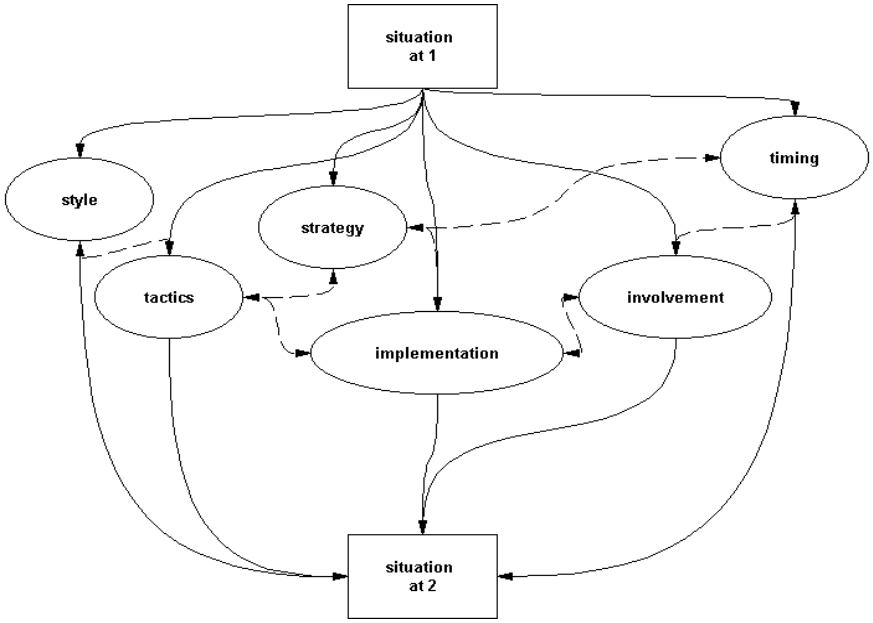

Figure 3: The Situation Stream and Endogenous Determinants

If information is used to detect the external changes then the sub-system of information processing allows the context state variables to be within parametric/ tolerance zones and in logic the context state variables become part of processes. With this interpretation the situation stream is definable only in respect of the linkage set as in Figure 3; hence, organisational transformation in POSIT is actioned through the linkage set.

Thus a planned response within a strategy, a change of tactics, involvement of different personnel, changing the style of operation, bringing some action forward or delaying it (timing), implementing changed resource levels are a few examples of the

way the RF achieves situation change. In short the linkage set is a way of depicting the changes in the deployment of resources in both quantitative and qualitative terms.

One of the key indicators of a situation is a set of transactions. As a firm one of the primary purposes of the RF is to achieve (planned) levels of final product/service where transactions are part of the bridge between the RF and its environment. External events will have impact on the RF, perhaps to change its situation, through the creation of new transactions either in level or kind. For example, there may be a major initiative by a competitor. This is detected by the RF's information system - a transaction - a response ensues. Again this will necessarily entail a range of transactions in both time and monetary dimensions. In this case too there will be transactions in perceived risk - what would have been the consequences of not responding set alongside the new risks of responding.

Interspliced with the conception of situation and transactions is the role of **people**. In the POSIT model there are various categories of people - customers, controllers, collaborators, competitors and the RF's own employees. In the systems approach each of these is a sub-system of the RF as a whole. Each may be described and analysed by the POSIT concepts - POSIT is a UoD appropriate to both the internal and external context of the RF.

The propositions set out in Figure 4 may serve as a summary of the development so far. The emphasis given to situation - in whatever number of dimensions is appropriate - enables the dynamics of the organisation to be depicted and the relevant changes, both from within and without the organisation, to be isolated, including the way in which these interact through internal response mechanisms.

Proposition 1: In principle any situation confronting any part of the RF may be described in terms of the 25 POSIT concepts. Situation itself will be referenced to previous situation(s).
Proposition 2: Any situation in any part of the RF will be either within a band of acceptable outcomes - tolerance zones - or outside it. In the latter case prompting either contingency action (which is a preconceived response to the unlikely but not unexpected) or a crisis response with its overtones of pragmatic adjustment to the unexpected.
Proposition 3: Situations define managerially significant phases through time, they encapsulate a full contextual statement and the outcome at that time of extant processes - themselves the result of a wide variety of interlocking subsystems characterised by recursiveness.
Proposition 4: The RF is a transaction system and is within a transaction system.

Figure 4: RF Propositions and Summary

From the earlier discussion the criteria that are appropriate for a systems specification may be summarised as Figure 5. There must be an accommodation to the RS for the task and an appropriate attention to implementation.

The implementation of this system is through the linguistic and spatial properties of designated software, with a pivotal role for EXPRESS and EXPRESS G [ISO, 1994]. In essence what can be described in language can be recorded, interrelated and where appropriate expressed in diagrammatic form. This is both an iterative procedure in the initial design as participants agree their roles and adaptable through time as circumstances necessitate. The system specification can be partially adapted with retention (inheritance) of unchanged components in the requisite (sub)systems.

- An appropriate UoD from which to find the RS for the RF
- The same UoD for all sub-systems

- Total system decomposition to appropriate levels of analysis
- A parsimonious scheme capable of appropriate elaboration
- A system sufficiently simple in each of its components yet sufficiently complex to mirror reality
- A system which incorporates both hard and soft systems
- A real time, dynamic system, self-adaptive or capable of re-orientation
- A communication system which is responsive to the management/functional tiers of the RF
- A visual system with inheritance of previous versions
- A system of record as the basis of incremental adaptation
- A system which can incorporate necessary information
- A system which can utilise existing databases in the RF
- A system which can incorporate the cumulated wisdom of other models in all the disciplinary areas that contribute to the business/management domain
- An operational system which contributes directly to temporal change through planning
- A system which can be both designed and owned by the RF
- A system which in principle is not vitiated by the size of the RF either as too small or too big
- A system which is integrative in terms of both the holistic and disaggregative approaches to strategic management
- A system which is compatible to existing computer technology at various levels of complexity and sophistication and with adaptive capability

Figure 5: Outline Specification

Full system specification is the aggregation of the subsystems outlined above reflecting their interconnectivity. System decomposition follows from the editing facility in terms of the core POSIT concepts as these are common to all parts of the RF. The incorporation of extant databases and systems of the RF is entailed. The component parts of the system are cascadable to reveal or suppress detail with access controlled for appropriate levels of management. The systems map is defined by the micro construction of the system in either linguistic or spatial forms. Full transferability between space and language is possible.

The system integrates planning, implementation and control functions of the RF. Its configuration is unique to the RF and is adaptable through time; it is compatible with extant systems in terms of both literary and numerical sources providing these are coded by the hierarchical POSIT language employed. The natural language facility enables this to reflect the organisations' distinctive idioms.

Conclusion

The strategic management domain and the sphere of application in any RF is extremely complex. Both executives and analysts can benefit from a *common* UoD to facilitate entry-level discussion prior to the development of frameworks and ideas of greater complexity. At this entry level stage, POSIT is a linguistic counterpart of many of the familiar models of the management literature in that it presents a focus on certain concepts, to the exclusion of others, but where the selected concepts act as cues for an expandable comprehension when this is required. Like any model it must have both face validity and utility.

Application of POSIT may be considered at various levels of elaboration. The entry level characteristics of POSIT enable rapid convergence to salient issues merely at the discursive level not least because it facilitates discussion amongst people with either common or disparate concerns in the RF.

The descriptive properties of POSIT enables the specification of complex organisations from discrete perspectives and the commonality of language enables the integration of these into more complex systems and ultimately to a holistic view.

Moreover, the specification of function or geographic sub-systems (or by other organisational categories) by the common frame in the RF can lead to whatever level of aggregration/disaggregation necessary for the concerns at issue.

More ambitious applications of POSIT can be conceived as the features of the design specification in Figure 5 are increasingly employed. If POSIT is the language of system specification at both the overall and sub-system levels, then the inter-relationships of its concepts are a means of defining an existing situation to whatever level of detail is appropriate. It provides a hierarchical and network capability which can be visually displayed. Computer developed and recorded versions of these networks - collapsed or expanded - to show appropriate detail can provide against common criteria the whole of a complex RF. With appropriate software, these conceptual maps can be contributed to by any number of executives and at CEO level expanded or contracted to the desired degree.

Into the overall concept of the RF as a system the more technical and specific sub-systems can be retained in their due complexity. In organisational terms the general soft characteristics of people, planning tolerances, objectives etc, may be recorded for reference purposes and sequential adaptation.

In principle, the specification via POSIT of an existing situation is the basis for review and modification of planning and implementation systems.

The methodology outlined is a way of encapsulating the RF as a system and as a set of sub-systems. As a firm the outcomes are necessarily related to a transactions set whilst a further set of transactions are inputs to this.

In this conception the RF must have both a record of its systems and their response capability. The component detail of this is readily specifiable but the integration of detail may prove problematic. In this the networked computer is a key asset. The ability to integrate small components and to aggregate by specified ingredients, to enlarge on situation specification or to produce summary aspects is a powerful facility. System specification, at whatever level, with answers to such questions as 'if ....then?', appropriately conceptualised in conditional and probabilistic form, aggregates into a unified set of response implications - the intermeshing of the various tolerance zones. It is the mental record of the RF as a unique entity, with in-built organic responses as the systems interrelate - it is the RF's 'brain'.

The ability to capture the mental inputs to the RF at all levels of the RF is clearly an important management tool to facilitate planning, implementation and control. The RF can critically review the contribution of its various systems and processes and refine its managerial structures in terms of the power authorised through tolerance zones.

The recording capability of such a system renders the RF less vulnerable to executive turnover. By inheritance of previous system specification in terms of input and output and the matching of these to realised outcomes in the RF's markets and environments the RF more readily can appreciate its critical success factors and so gain/maintain the distinctive competence for survival and growth.

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