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Smith, Jim; Wyatt, Ray; Jackson, Norm *Facilities*; 2003; 21, 10; ProQuest

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# A method for strategic client briefing

Jim Smith
Ray Wyatt and
Norm Jackson

## The authors

**Jim Smith** is Senior Lecturer in the Faculty of Architecture, Building and Planning, The University of Melbourne, Parkville, Australia.

Ray Wyatt is Senior Lecturer at the School of Anthropology, Geography and Environmental Studies, The University of Melbourne, Parkville, Australia.

**Norm Jackson** is Lecturer in the Department of Building and Construction Economics, RMIT, Melbourne, Australia.

#### Keywords

Clients, Stakeholders, Strategic management

#### Abstract

Strategic client briefing is now recognised as an essential component of best practice in facilities management. A number of different briefing approaches have evolved, or are being developed, and this paper presents strategic needs analysis (SNA). It has been applied within six project-inception studies with real clients, for developing and choosing a strategic direction for the project being considered by all the stakeholders. Moreover, a survey of stakeholders was carried out after each study, in order to find out how well participants thought the workshop performed in terms of six key process characteristics. Such key characteristics were further divided into a total of 41 additionally assessed attributes considered as important within the client-briefing process. Analysis of such assessments revealed some interesting positive and negative features. Consequently, the SNA approach was refined. Presents the major findings of the work carried out along with some observations about overall processes, and suggestions for further improving strategic client briefing using SNA or similar approaches.

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Facilities

Volume 21 · Number 10 · 2003 · pp. 203-211

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DOI 10.1108/02632770310493571

# 1 The process

A number of approaches towards the strategic client briefing process have been developed. We begin by briefly introducing what the literature and practitioners say such approaches should aspire to, before explaining how and why we developed our own approach.

### 1.1 Requirements

Many approaches, such as decision analysis (Coyle, 1972; Raiffa, 1968; Watson and Buede, 1988) aim to create and develop alternative strategies during strategic management activities. However, few of them appear to have been applied to the process that converts the strategy into property investment decisions or corporate real estate to support them. Indeed, Green (1992, 1996), Latham (1994), Egan (1998) and Chartered Surveyor Monthly (1998) have highlighted the need for skilled specialist practitioners to bridge the gap between corporate strategy and the development of building projects to realise such strategy.

Any process adopted should occur during the project inception stage. It should confirm and extend the decision to build (new-build, extend, renovate, upgrade, remodel) and it must reflect the environment of the organisation by being sensitive to the strategic direction identified within the strategic management process. The literature also states that any such process should capture the organisation's mission, vision and values that guide the process of considering alternatives that satisfy the strategic direction already determined. The process needs to be useful, flexible, well organised, sensitive to client and stakeholder needs and designed to provide more effective, efficient, innovative and better solutions (Gray et al., 1994; Karma and Anumba, 2001).

Our own discussions of a proposed methodology with several client bodies, consultants, academics and colleagues pointed to a series of additional features that should be incorporated into any strategic client briefing process. However, the challenge was to have a minimum number of characteristics whilst still largely achieving the aim of each suggestion. Thus, in summary any methodology must ideally:

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- · satisfy the principles of problem solving;
- create a number of strategic options for the future direction of the organisation;
- actively involve a range of different types of stakeholder;
- adopt a rigorous means of decision making;
- allow each participant to contribute to the decision-making process irrespective of their position and role within the organisational hierarchy;
- involve external stakeholders who can contribute to development of a strategic direction;
- challenge organisational assumptions and prescriptive responses to service delivery;
- provide commitment to decisions in order to improve the chances of implementation;
- be supported by senior management through to final decision making; and
- complete the process in as short a time as possible – preferably in a maximum of two days.

In order to satisfy as many of these requirements as possible, we have developed our own approach – strategic needs analysis (SNA). It has been so named in order to capture its essence using a few words that identify its concentration on the strategic efforts of the client and stakeholder group. A feature of the approach is its use of the Strategizer (Wyatt, 1995a, b, 1999) software for decision making in SNA applications.

## 1.2 Our chosen approach - SNA

SNA was designed with the aim of making a positive contribution to the inception of a project. It also starts with the premise that the solution delivered will be the most appropriate to satisfy stakeholders' strategic needs and this is likely to be, but may not always be assumed to be, a construction project. SNA also reflects, and is sensitive to, the strategic direction identified within the strategic management process and so overlaps it. Indeed, strategic management (Viljoen, 1994; David, 1997; Thompson and Strickland, 1995) and problem-solving approaches (Ackoff, 1978; Popper, 1994) have much in common.

The process is based on the involvement of as many significant stakeholders as is practically possible. These are representatives, direct and indirect, who may have an interest in, and can make a contribution to, the proposed project. They include:

- the owner;
- managers, executives, facility managers, project manager(s);
- staff or employees;
- purchasers, sub-contractors, suppliers and other process or service providers;
- tenants, residents, community representatives, neighbours;
- visitors, customers, potential and future customers, users, partners or interest groups;
- design team members (if appropriate);
   and
- others, depending on the project and attitude of the organisation to participation, and involvement in the process.

This stakeholder group should ideally include members of the client group from the strategic to the operational levels of the organisation. Clearly, it should involve some participants who have an interest in the service, product or possible facility. An essential aim of the process is that stakeholders should broaden and re-orientate their frame of reference in defining projects from the prescriptive and standard response, to one where they have a strategic view of their own organisation's true goals, objectives, needs and requirements. Any identified options must be consistent with the strategic direction enunciated by the organization in its strategic management processes and statements.

In short, whatever the approach adopted during the project inception stage(s), we aim to implement a broad-based process that can deliver the following benefits:

- recognition of the opportunity created by the decision to build;
- · client commitment to the project;
- greater client understanding of the brief and the problem(s) it is attempting to solve;
- clearer formulation of the service needs, functional requirements and objectives;
- improved versatility or flexibility of the selected project option because a more thorough evaluation of its purpose has been carried out;
- dissemination of client and user information to the design team; and

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 broad discussion of the proposed activities within the new facility by all the participants.

Hence the objectives of SNA are to:

- develop a service vision for the organisation based on a clear understanding of the use and demand for such services;
- involve as many as possible of the existing and potential stakeholders in the definition of alternative strategies;
- identify many realistic alternative strategies for the achievement of the vision;
- analyse the alternative strategies with the stakeholders;
- · decide on a preferred strategy; and
- assist in the preparation of the performance brief to guide the later, more prescriptive, design or project brief.

Finally, it recognises that in a strategic environment the options or choices facing the decision maker(s) may not, and often cannot, be fully described. It accepts that information at this stage is not exhaustive or perfect, but nonetheless a decision to set the course for the project has to be made. So SNA probably represents an effective decision gatekeeper for reflecting on the choices, possibly introducing a new one (or new ones) not previously considered and then confirming the agreed choice.

## 1.3 Mechanisms within SNA

The SNA process uses standard planning workshop, problem-solving techniques (Popper, 1994; Lichfield *et al.*, 1975; Rosenhead, 1989; Checkland and Scholes, 1990) and progresses through the following major activities:

- (1) collect information to understand the nature of the problem;
- (2) discuss and analyse the problem;
- (3) develop options to solve the problem;
- (4) decide on a preferred option or direction; and
- (5) make a recommendation to implement the preferred option.

In practice, SNA is a three-stage process:

- (1) information seminar (understand the problem);
- (2) workshop one (develop appropriate options to solve the problem); and
- (3) workshop two (decide and recommend).

The structure is shown diagrammatically in Figure 1.

SNA aims to not only achieve involvement of all the stakeholders, but also to ensure senior management is committed to the process and the outcome. It is a process designed to define clearly the problem that needs to be solved by the design team, and so provide a solid base for the project to succeed (Smith et al., 1998). It should create a suitably defined project (for this early stage) that suits the stakeholders' needs whilst ensuring client and stakeholder satisfaction.

#### 1.5 Outcomes of SNA

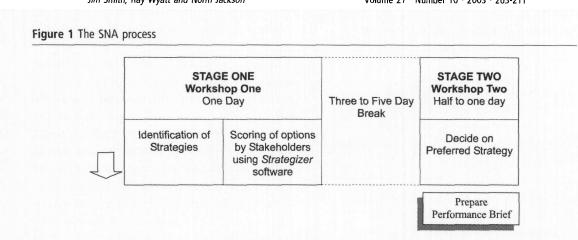
The product of any SNA workshop is an agreed strategy, which should satisfy the organisation's strategic requirements and should result in a decision to proceed with the project. This strategy in most cases is a built facility, in which case a performance brief will be prepared, by the stakeholders, in order to guide the design team. For an organisational arrangement strategy, a detailed statement of its requirements is developed that will consider the financial, human resources, social and other implications of its implementation.

Since a built facility is the most likely chosen strategy, a performance brief will document decisions in performance terms, stating the outcomes required, rather than a prescriptive way of how to do it. The designer will have to develop the project within the parameters defined in the brief, which will guide, but should not inhibit, the actual built solution.

## 2 Six applications of SNA

SNA was used on six studies during the project inception (pre-design) stage where guidance was needed to assist the client and stakeholders in defining the strategic direction for the organisation or in the providing of new facilities. The type of problem addressed in each study is shown in Table I. It can be seen that a broad range of perspectives was considered in each one. The types of study range from the truly strategic (college and yacht club) through the analysis of content within proposed facilities (youth training, faculty relocation and council) to an almost macro-strategic focus within an identified project (lighting lab).

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Case study	Problem	No. at workshop	Per cent return
1. Lighting lab	University property division and school making decisions on the type of teaching and research space to be planned and provided	15	73
2. College	Tertiary institution considering its strategic plan in relation to the type and need for educational facilities	42	86
3. Youth training	Government design group and juvenile justice department reviewing its master planning for a new facility within its present system	10	80
4. Faculty relocation	A university property division organising a faculty transferring to a new campus with a review of the type and form of facilities to be provided	11	45
5. Yacht club	Identification and selection of suitable options for the future development of the marina facilities in a sensitive area of city redevelopment	8	63
6. Council	Preparation of a performance brief for a new site for the redeveloped library facilities in a shopping precinct including identifying potential joint uses in the new facility	15	60
Totals	17일 경기에 12일 전환 1일 1일 시간 12일	78	77

Nonetheless, in each of these studies, SNA, was able to inform, guide, define options and decide.

#### 2.1 Criteria used in post-workshop surveys

For each of these studies a survey of stakeholders was carried out immediately following the final workshop and the numbers and response rate is also given in Table I. The survey collected participants' views and opinions about the effectiveness of the structure of the process, the software, workshop decisions and general comments.

A further survey some weeks after the completion of the study elicited participants' views on a number of key attributes forming the basis of this research:

- (1) A. Management commitment (strategic);
- (2) B. Stakeholder participation;
- (3) C. Group dynamics;
- (4) D. Workshop organisation;
- (5) E. Tools; and
- (6) F. Process (problem solving).

These six broad categories were further sub-divided into individual attributes under each category in order to carry out decision-making attributes assessment. The latter used a questionnaire survey in an attempt to integrate theoretical concepts with results from the practice of using SNA (Barrett and Stanley, 1999). In essence, these attributes provided the framework for assessment of this model of the project inception stage.

The final list of 41 attributes in all six categories is summarised in Table II.

## 2.2 Results of post-workshop surveys

All workshop participants were asked to score each of these 41 criteria in terms of how much they initially thought each one would be achieved at the workshop ("practice/ forecast"), how much it was actually achieved at the workshop ("practice") and how important it was in theory ("theory"). Rankings of respondents' scores are shown in Table III.

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**Table II** Workshop-assessment criteria – decision-making attributes framework

#### A. Management commitment (strategic)

- A1. Searching/aspiring to highest possible quality decision
- A2. Support for process by senior management
- A3. Ongoing commitment to workshop decisions
- A4. Support by capital works (assets) division
- A5. Involvement by senior management

#### B. Stakeholder participation

- B1. Involvement by all potential internal representatives
- B2. Involvement by all potential external representatives
- B3. Stakeholder commitment to process
- **B4. Significant contributions**

#### C. Group dynamics

- C1. Honesty (not role playing)
- C2. Suspension of political agendas
- C3. Shared vision
- C4. Levels of consensus
- C5. Success at generating ideas, new approaches
- C6. Working as a team
- C7. Extent of participation

#### D. Workshop organisation

- D1. Aim adequately defined
- D2. Process defined followed
- D3. Participation encouraged
- D4. Level of manipulation
- D5. A learning experience
- D6. Challenge assumptions
- D7. Client/customer focused
- D8. Earnest organisation
- D9. Willingness to use all tools
- D10. Aim achieved

## E. Tools

- E1. Level of acceptance generally
- E2. Ease of understanding criteria
- E3. Ease of using software
- E4. Understanding output
- E5. Contribution to personal understanding
- E6. Contribution to decision

#### F. Process (problem solving)

- F1. Quality of information provided
- F2. Awareness of participants of problem context
- F3. Problem defined
- F4. Problem discussed
- F5. Options generated
- F6. Clear decision made
- F7. Decision agreed
- F8. Decision supported
- F9. Decision implemented

Analysis of the Table III results was then carried out using the SPSS statistical software package. A number of significant correlations (five) were identified between different pairs of theory/practice scores, but no inferences could be clearly made from them. A larger number of significant correlations (16) were identified between theory/theory and practice/practice of attributes probably due to an overlap in the attribute(s). Also, a regression analysis that tried to predict theory scores on the basis of practice scores was made in order to test whether the workshop experience tended to alter respondents' attitudes about the theoretical importance levels of certain criteria. But results here were inconclusive.

The attributes were then ranked (one to 41), where attributes with the closest alignment between theory and practice scores (1.00 or lower) were ranked higher. The full list of rankings on this basis is given in Table III.

The ten most satisfied criteria (24 per cent of the total 41 criteria), placed in their categories, are shown in Table IV. The order of ranking on the theory/practice performance scale are shown in brackets in column two. The proportion of attributes in each category in this top ten listing are also shown in column three of the table. By classifying these attributes, a good impression is gained of the features of SNA that appear to be working effectively.

An interesting feature of this analysis is that none of the attributes in management commitment or group dynamics is included in these top-performing criteria.

In contrast, the eight most poorly performing attributes on the same theory/practice scale are shown in Table V. Similarly, their rank in the 41 attributes is shown in column two in brackets.

The major negative category in terms of better performance in SNA is concerned with "managerial commitment" (see Table IV). Whilst all the other categories have one attribute on the poorly performing list, the "managerial commitment" category fares the worst.

Accordingly, our conclusion is that there are some features of SNA that need reinforcing, or require more determined implementation, such as the "information seminar". The other feature that participants noted as making a positive contribution to "stakeholder participation" and "group dynamics" is the introduction of small group(s) options-development teams into workshop one and accepting that this change extends this workshop by an additional half or full day. The other feature that was

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Table III Scores for workshop-assessment criteria

	Practice	/forecast	Practice	Theory
Attributes (1-41)	Index Ranking		ranking	ranking
D2. The process defined must be followed	1.12	1	8	36
E6. Use of the tools must contribute to decision	1.13	2	32	40
F5. Options generated must be realistic	1.13	2	4	22
F4. Problem must be discussed adequately	1.14	4	16	7
F2. Participants must be aware of problem context	1.19	5	9	7
D5. It should be a positive learning experience	1.20	6	11	30
B2. Involvement by all external representatives	1.21	7	35	40
E5. Activities/process contribute to understanding	1.23	8	15	31
D8. Competent organisation of workshops essential	1.25	9	1	7
D3. Broad participation should be encouraged	1.26	10	5	19
D4. There must be low levels of manipulation	1.28	11	31	37
F3. Problem must be properly defined	1.28	11	7	1
D10. Basic aim must be achieved by process	1.30	13	13	26
F7. Important decision is agreed by participants	1.31	14	27	33
C3. Agreement on a shared vision is essential	1.33	15	31	36
E3. Tools (software) must be easy to use	1.34	16	15	12
C5. The group should generate new ideas	1.37	17	2	5
D9. Participants must be willing to use all tools	1.41	18	21	27
E4. Understanding of output is essential	1.41	18	10	16
F6. Clear decision on final direction must be made	1.41	18	27	28
E2. Easy understanding of criteria for assessment	1.43	21	19	25
C4. Reaching a high level of consensus important	1.46	22	27	28
D6. Participants must challenge some assumptions	1.49	23	13	14
C6. Participants should work effectively as a team	1.50	24	21	24
D7. There must be clear client/customer focus	1.51	25	21	19
A5. Involvement by senior management	1.52	26	21	19
C1. Honesty (not role playing) is important	1.53	26	38	32
C2. Participants should suspend political agendas	1.53	28	40	38
B1. Involvement by all internal representatives	1.56	29	12	9
A4 Support by capital works division	1.61	30	30	19
B4. The opportunity for significant contributions	1.61	30	15	9
F9. Decision must be implemented	1.63	32	41	38
F1. Information provided must be appropriate	1.65	33	3	5
D1. Aim should be clearly defined	1.70	34	5	3
F8. Decision must be supported by participants	1.75	35	33	17
B3. Stakeholder commitment to process	1.77	36	25	9
C7. Extent of participation should be broad	1.77	36	25	9
A3. Ongoing commitment to workshop decisions	2.02	38	39	17
A1. Searching for highest quality decision	2.03	39	20	1
A2. Support for the process by senior management	2.27	40	35	4
E1. High level of acceptance of tools in process	2.32	41	35	33

recognised particularly in the final case study (council) was the structuring of the options by the introduction of the purpose-designed software for situation structuring.

When these features are added to our basic model illustrated in Figure 1, the SNA process now takes on a structure represented in Figure 2. The formal addition of the "information seminar" is made to the structure; the small group options

development is introduced into workshop one, as is the discretionary use of the situation structuring software (Dickey, 1995) to assist in the activity of options identification.

# 3. Implications for improved practice

One of the major lessons of this paper is that neither SNA nor any other approach can

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Table IV The top ten practice/forecast criteria in categories

Category	Attribute	No. out of total in category	
A. Managerial commitment	None	None of five (0 per cent)	
B. Stakeholder participation	B2. Involvement by all external representatives (seven)	One of four (25 per cent)	
C. Group dynamics	None	None of seven (0 per cent)	
D. Workshop organisation	D2. The process defined must be followed (one) D5. It should be a positive learning experience (six) D8. Competent organization of workshops essential (nine) D3. Broad participation should be encouraged (ten)	Four of ten (40 per cent)	
E. Tools	E6. Use of the tools must contribute to decision (two) E5. Activities/process contribute to understanding (eight)	Two of six (33 per cent)	
F. Process	F5. Options generated must be realistic (three) F4. Problem must be discussed adequately (four) F2. Participants must be aware of problem context (five)	Three of nine (33 per cent)	

Table V The bottom eight practice/forecast criteria in categories

Category	Attribute	No./total	
A. Managerial commitment	A3. Ongoing commitment to workshop decisions (38) A1. Searching for highest quality decision (39) A2. Support for the process by senior management (40)	Three of five (60 per cent)	
B. Stakeholder participation	B3. Stakeholder commitment to process (36)	One of four (25 per cent)	
C. Group dynamics	C7. Extent of participation should be broad (37)	One of seven (14 per cent)	
D. Workshop organisation	D1. Aim should be clearly defined (34)	One of ten (10 per cent)	
E. Tools	E1. High level of acceptance of tools in process (41)	One of six (17 per cent)	
F. Process	F8. Decision must be supported by participants (35)	One of nine (11 per cent)	

properly succeed unless it is sustained by a climate within the organisation that supports a strategic culture and environment that continually demand better ways of running its core business and related activities. If the organisation is not prepared to adopt a strategic management approach linked with corporate strategy where it aims to improve its performance continually, then this process is not likely to succeed.

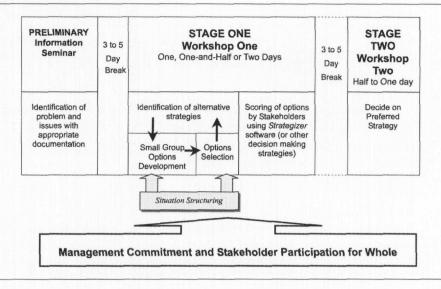
A characteristic of the ideal situation is that the organisation creatively questions and justifies its own activities at the most fundamental level. The organisation must not complacently accept that the historical way of providing services should necessarily be projected indefinitely into the future. As a consequence, a problem-solving approach, combined with a demanding strategic management environment encompassing a greater number of stakeholders in the decision-making process, will generate the reward of alternative solutions and methods of problem solving that are more effective.

For over two decades clients and design teams have recognised that it is during the early stages in the life of a project where most of the critical decisions are made. However, progress towards greater involvement in this stage by the various built environment disciplines has been substantial. Lack of a client may be one of the major reasons why this has not occurred, but another reason may be the absence of suitable tools, techniques and approaches to assist the client team during these strategic stages of decision making.

This research proposed one methodology to enable clients, stakeholders and their design team advisers to work together. Clients need to be made aware of such approaches and it is only through use and practice that these approaches will become accepted as standard procedure. So, clients, project managers and design team members should work more closely to ensure that good advice is available at the project inception stages.

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Figure 2 The restructured SNA process



In parallel to these client-based activities and awareness programmes, the professional bodies in the built environment (architects, engineers, project managers, urban planners, facilities managers and property advisers) should identify and target project inception, as well as the decision to build, for greater definition than they presently have in their standard "plans of work". That is, decision point(s) and time lines and the potential participants should be identified, together with a recommendation about possible techniques and approaches. An initial awareness program may bring this stage to the attention of clients and peak industry bodies (such as the Property Council of Australia and the British Property Federation). The latter should be encouraged to make their members aware of this stage and the assistance that can be enlisted from various sources.

However, as this research has shown, the commitment of the client group through its senior management is the crucial factor in achieving a successful outcome. None of the many techniques or initiatives being developed can succeed without honest client support, commitment and interest.

#### References

Ackoff, R.L. (1978), The Art of Problem Solving, Wiley, New York, NY.

Barrett, P. and Stanley, C. (1999), *Better Construction Briefing*, Blackwell Science, Oxford.

Checkland, P.B. and Scholes, J. (1990), Soft Systems Methodology in Action, Wiley, Chichester. Coyle, R.G. (1972), *Decision Analysis*, Nelson, London. *Chartered Surveyor Monthly* (1998), London, Vol. 7 No. 9, p. 5.

David, F.R. (1997), *Strategic Management*, 6th ed., Prentice-Hall International, London.

Dickey, J.W. (1995), Cyberquest: Conceptual Background and Experiences, Ablex, Norwood, NJ.

Egan, J. (1998), Rethinking Construction, Construction Task Force Report, Department of the Environment, Transport and Regions, HMSO, London.

Gray, C., Hughes, W. and Bennett, J. (1994), The Successful Management of Design: A Handbook of Building Design Management, Centre for Strategic Studies, University of Reading, Reading.

Green, S.D. (1992), A SMART Methodology for Value Management, Occasional Paper No. 53, Chartered Institute of Building, Ascot.

Green, S.D. (1996), "Group decision support for value management", in Langford, D. (Ed.), Proceedings of CIB W-65 Symposium, Shaping Theory and Practice, Glasgow.

Karma, J.M. and Anumba, C.J. (2001), "A critical appraisal of the briefing process in construction", *Journal of Construction Research*, Vol. 2 No. 1, pp. 13-24.

Latham, M. (1994), Constructing the Team; Joint Review of Procurement and Contractual Arrangements in the United Kingdom Construction Industry, Final Report, HMSO, London.

Lichfield, N., Kettle, P. and Whitbread, M. (1975), *Evaluation in the Planning Process*, Pergamon Press, Oxford.

Popper, K.R. (1994), in Notturno, M.A. (Ed.), *The Myth of the Framework: In Defence of Science and Rationality*, Routledge, London, p. 101.

Raiffa, H. (1968), *Decision Analysis: Introductory Lectures* on Choices Under Uncertainty, Addison-Wesley, Reading, MA.

Rosenhead, J. (1989), Rational Analysis for a Problematic World, Wiley, Chichester.

Smith, J., Jackson, N. and Wyatt, R. (1998), "Strategic needs analysis: searching for viable solutions", Plenary Paper, Proceedings of the COBRA Construction and Building Research Conference 1998, 2-3 September 1998, Oxford Brookes

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- University, The Royal Institute of Chartered Surveyors, London, Vol. 1, pp. 60-6.
- Thompson, A.A. and Strickland, A.J. (1995), *Strategic Management: Concept and Cases*, 8th ed., Irwin, Chicago, IL.
- Viljoen, J. (1994), Strategic Management: Planning and Implementing Successful Corporate Strategies, 2nd ed., Addison Wesley Longman Australia Pty, Melbourne.
- Watson, S.R. and Buede, D.M. (1988), Decision Synthesis: The Principles and Practice of Decision Analysis, Cambridge University Press, Cambridge.
- Wyatt, R.G. (1995a), "Exploring the kernel of socially sensitive planning", paper presented at the International Workshop on Computers in Urban Planning, Kobe.
- Wyatt, R.G. (1995b), "Using neural networks for generic strategic planning", in Pearson, D.W., Steele, N.C. and Albrecht, R.F. (Eds), Artificial Neural Nets and Genetic Algorithms, Springer Verlag, Vienna.
- Wyatt, R. (1999), Computer-Aided Policy Making: Lessons from Strategic Planning Software, E&FN Spon, London.