

Strategic Planning by use of Total Systems Intervention Towards the Strategic Alignment

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Abstract—Strategic planning is one of the most important activities associated with the almost all of the organizations and firms. In the other hand, the lack of alignment of organization elements towards the organizational strategy leads to poor execution. When the different departments of the organization have different strategies that are different directions and implementations, the whole organizational purposes and visions rarely could archive. The main purpose of this paper is to present a new framework for align organizational strategies by using the Total Systems Intervention (TSI) approach for decision makers and all the managers and beneficiaries the associated with the process of strategic planning in the organizations. Total Systems Intervention (TSI) is a meta-methodology that brings together a range of systems metaphors, a framework of systems methodologies, and various systems approaches to enable creative problem solving. In this paper after detail literature review of the field, the Analytical Framework for strategic alignment will present. In the final paper both theoretical and applied recommendation will provided.

Index Terms—strategic planning, Total Systems Intervention (TSI), strategic alignment.

I. INTRODUCTION

No organization exists without a purpose. They are free to pursue their chosen course so long as they also fulfill certain expectations of their environment. Purpose provides the framework for strategy formation, which is the basis for strategy implementation. It is expected that people direct their efforts and activities towards implementing projects or initiatives aimed at accomplishing their purpose; however, many organizations suffer from a lack of adequate coordination and focused execution. Studies have shown that, in most organizations, strategy management is a dismal art. A high percentage of strategic plans do not get implemented. Many employees have a short-term perspective regarding the future of the organization making it very difficult for them to align their priorities and activities. Strategic planning efforts are frequently not designed, deployed, and controlled in such a way as to align employee's efforts towards organizational goals [1]. So strategic alignment is extraordinary important for organizations that intend to gain sustainable advantage in the today turbulent markets. In the other hand, for all of the decision makers and managers in the process of strategic planning it are very vital that we have the total viewpoints for see the all of the associated problems and essentials for achievement and meet the organizational goals and objectives. Total Systems Intervention enables managers for achieve a useful methodology for acting in the turbulent environment of the current business. And set the best

appropriate plans for doing well that means high effectiveness and efficiency.

II. TOTAL SYSTEMS INTERVENTION (TSI)

Total Systems Intervention (TSI), developed by Flood and Jackson [3], is a meta-methodology that brings together a range of systems metaphors, a framework of systems methodologies, and various systems approaches to enable creative problem solving. In a process of TSI, systems metaphors are used to encourage creative thinking about organisations and the issues confronting managers. These issues are then linked through a framework so that an appropriate systems intervention, or set of systems interventions, could be deployed. Total Systems Intervention (TSI) is an organisational intervention process that “proposes a ‘system of system methodologies’ intended to facilitate the complementary selection of different system approaches”, according to Lane [4]. Hame [5] claims that TSI “allows for the examination of every dimension of strategy, the surfacing of all significant issues and the design of appropriate interventions” and Attwater [6] refers to TSI “as a critical basis for considering the assumptions underlying the range of systems methodologies”. Flood [7] believes that TSI is “an approach to problem solving in any organisation that stands firm with the original holistic intent of systems thinking”.

The driver for Flood and Jackson's [3] creation of TSI was the understanding that any manager wishing to use a systems methodology is faced by a plethora of systems approaches, with a difficulty of choosing an approach that was relevant to the problem context that the manager faced. One reason for the difficulty in choosing an approach is that “systems approaches are based upon different metaphorical understandings and different views of reality” [3], which “conditions the way each advises seeking to intervene in and change organisations”. Flood [7] explains that TSI: is in its essence a process that enables the problem solver to employ a range of different methods, by first thinking creatively about the kind of issue an organisation faces and then choosing a method or methods most likely to tackle those issues effectively.

There are three phases in the TSI process: creativity; choice; and implementation. In the first phase, different metaphors “focus attention on different aspects of an organisation's functioning” [3], and “a dominant metaphor which highlights the main interests and concerns” emerges. The task of the second phase is to choose one or a set of methodologies “to suit particular characteristics of the organisation's situation” as revealed in the first phase. The final phase is involved in employing the methodology into generating “specific proposals for change” [2].

To enable a manager to make an informed decision, Flood and Jackson [3] put forward a grouping of problem context situations in a matrix as shown in Figure 1. The matrix consists of two dimensions; one related to the level of complexity of the problematic system, and the other relating to the relationships of the participants involved in the problem context. Jackson [7] explains the relationship dimension as follows:

Thus, people can be in a unitary relationship if they share values and interests; in a pluralist relationship if their values and interests diverge but they have enough in common to make it worthwhile for them to remain members of the coalition that constitutes the organization; and in a conflictual or coercive relationship if their interests diverge irreconcilably and power comes to bear so that one group gets its own way at the expense of others.

	Unitary	Pluralist	Coercive
Simple	Simple-Unitary	Simple-Pluralist	Simple-Coercive
Complex	Complex-Unitary	Complex-Pluralist	Complex-Coercive

Fig. 1. An “ideal type” grouping of problem contexts [3]

Flood and Jackson then put forward a recommendation as to which systems methodologies would be appropriate given the relevant problem contextual situation. They title this a ‘system of systems methodologies’, which was developed from earlier work by Jackson and Keys [8].

TABLE 1. A GROUPING OF SYSTEMS METHODOLOGIES BASED ON THE ASSUMPTIONS THEY MAKE ABOUT PROBLEM CONTEXTS [3]

	Unitary	Pluralist	Coercive
Simple	Operations research Systems analysis Systems engineering System dynamics	Social systems design Strategic assumption surfacing and testing	Critical systems heuristics
Complex	Viable system diagnosis General systems theory Socio-technical systems Contingency theory	Interactive planning Soft systems methodology	?

A. ISI Subsystems

For better use of TSI approach there are subsystems for applying in the each problematic situation in the organizational activities. Table 2 shows these subsystems.

III. STRATEGIC PLANNING AND MANAGEMENT

The global economic landscape and business world are changing rapidly. Strategic management in turbulent conditions needs to be pro-active. Just when managers think they have developed a strategy for future success, a new technology, process, competitor or customer behavioral pattern emerges. While a sharp focus and “sticking to the knitting” is sometimes the key to success in more stable conditions, the turbulent, knowledge-driven markets of today

require dynamic new strategic management approaches and tools.

TABLE 2. TOTAL SYSTEMS INTERVENTION SUBSYSTEMS

Systems methodology (examples)	Assumptions about Problem Contexts	Underlying metaphors
System dynamics	Simple-Unitary	Machine/Team
Viable systems diagnosis	Complex-Unitary	Organism/Brain/Team
Strategic Assumption Surfacing and Testing	Simple-Pluralistic	Machine/Coalition/Culture
Interactive planning	Complex-Pluralistic	Brain/Coalition/Culture
Soft systems methodology	Complex-Pluralistic	Organism/Coalition/Culture
Critical systems heuristics	Simple-Coercive	Machine/Organism/Prison

A. The process of Total Systems Intervention (TSI)

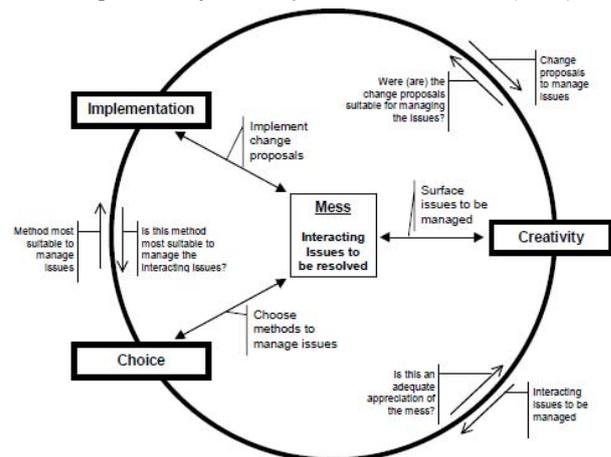


Fig. 2. The process of TSI

B. The Three Phase of TSI Meta-Methodology [3]

Creativity	
Task	To highlight aims, concerns and problems.
Tools	Systems metaphors.
Outcome	Dominant and dependent metaphors highlighting the major issues.
Choice	
Task	To choose appropriate systems -based intervention methodologies.
Tools	The “system of systems methodologies”; the relationship between metaphors and methodologies.
Outcome	Dominant and dependent methodologies chosen for use.
Implementation	
Task	To arrive at and implement specific change proposals.
Tools	Systems methodologies employed according to the logic of TSI.
Outcome	Highly relevant and co-ordinated intervention.

In today's highly competitive business environment, budget-oriented planning or forecast-based planning methods are insufficient for a large corporation to survive and prosper. The firm must engage in strategic planning that clearly defines objectives and assesses both the internal and

external situation to formulate strategy, implement the strategy, evaluate the progress, and make adjustments as necessary to stay on track [9].

C. Mission and Objectives

The mission statement describes the company's business vision, including the unchanging values and purpose of the firm and forward-looking visionary goals that guide the pursuit of future opportunities.

Guided by the business vision, the firm's leaders can define measurable financial and strategic objectives. Financial objectives involve measures such as sales targets and earnings growth. Strategic objectives are related to the firm's business position, and may include measures such as market share and reputation [10].

D. Environmental Scanning

The environmental scan includes the following components:

- 1) Internal analysis of the firm
- 2) Analysis of the firm's industry (task environment)
- 3) External macroenvironment

The internal analysis can identify the firm's strengths and weaknesses and the external analysis reveals opportunities and threats. A profile of the strengths, weaknesses, opportunities, and threats is generated by means of a SWOT analysis

An industry analysis can be performed using a framework developed by Michael Porter known as Porter's five forces. This framework evaluates entry barriers, suppliers, customers, substitute products, and industry rivalry.

E. Strategy Formulation

Given the information from the environmental scan, the firm should match its strengths to the opportunities that it has identified, while addressing its weaknesses and external threats.

To attain superior profitability, the firm seeks to develop a competitive advantage over its rivals. A competitive advantage can be based on cost or differentiation. Michael Porter identified three industry-independent generic strategies from which the firm can choose.

F. Strategy Implementation

The selected strategy is implemented by means of programs, budgets, and procedures. Implementation involves organization of the firm's resources and motivation of the staff to achieve objectives.

The way in which the strategy is implemented can have a significant impact on whether it will be successful. In a large company, those who implement the strategy likely will be different people from those who formulated it. For this reason, care must be taken to communicate the strategy and the reasoning behind it. Otherwise, the implementation might not succeed if the strategy is misunderstood or if lower-level managers resist its implementation because they do not understand why the particular strategy was selected [11].

A. Evaluation & Control

The implementation of the strategy must be monitored and adjustments made as needed.

Evaluation and control consists of the following steps:

- 1) Define parameters to be measured
- 2) Define target values for those parameters
- 3) Perform measurements
- 4) Compare measured results to the pre-defined standard
- 5) Make necessary changes

IV. STRATEGIC ALIGNMENT

The word alignment is widely used without an accepted operational definition. The word itself may be used in slightly different ways. Alignment is defined in dictionaries as "the act of adjusting to a line; a formation in a straight line" [12]. Or the process of adjusting parts so that they are in proper relative position [13]. In another perspective alignment is defined as an organization of people involved in a pact or treaty [14]. Fonvielle and Cart [15] suggest that alignment is not only a matter of individuals agreeing on goals and means; it also refers to the need for business processes and functions to rally their actions around the flagpole of the organization's strategy. Strategic alignment has many pseudonyms. It is also termed fit [16], integration [17], bridge [18], harmony [19], fusion [20] and linkage [21]. However, in all cases, it concerns the integration of strategies relating to the business and its IT/IS. There are those who argue that IS alignment is not an issue in its own right. Some researchers, for example, Smaczny [21], assert that as IS is pervasive in business, it should not be regarded as separable from business strategy, and therefore the need for alignment does not arise. Smaczny uses the term fusion to describe this integration. Yet, strategy in its broadest sense is all about alignment or matching organizational resources (including IS) with environmental threats and opportunities [22]. Indeed, IT management can be conceptualized as a problem of aligning the relationships between the business and IT infrastructure domain [23] in order to take advantage of IT opportunities and capabilities [24]. So, in the next section steps of strategic management and planning will describe and on this basis strategic alignment will be presented.

V. RESEARCH ANALYTICAL FRAMEWORK

By using the detailed literature review and recognition the position of strategic alignment in the organizations and also many studies about the Total Systems Intervention (TSI) and its importance in the selection process of methodologies in the field of organizational studies, in this section the innovative research analytical framework will be presented to address the main components of strategic planning in the organizations and TSI approach for achieving the appropriate strategic alignment across the organizations.

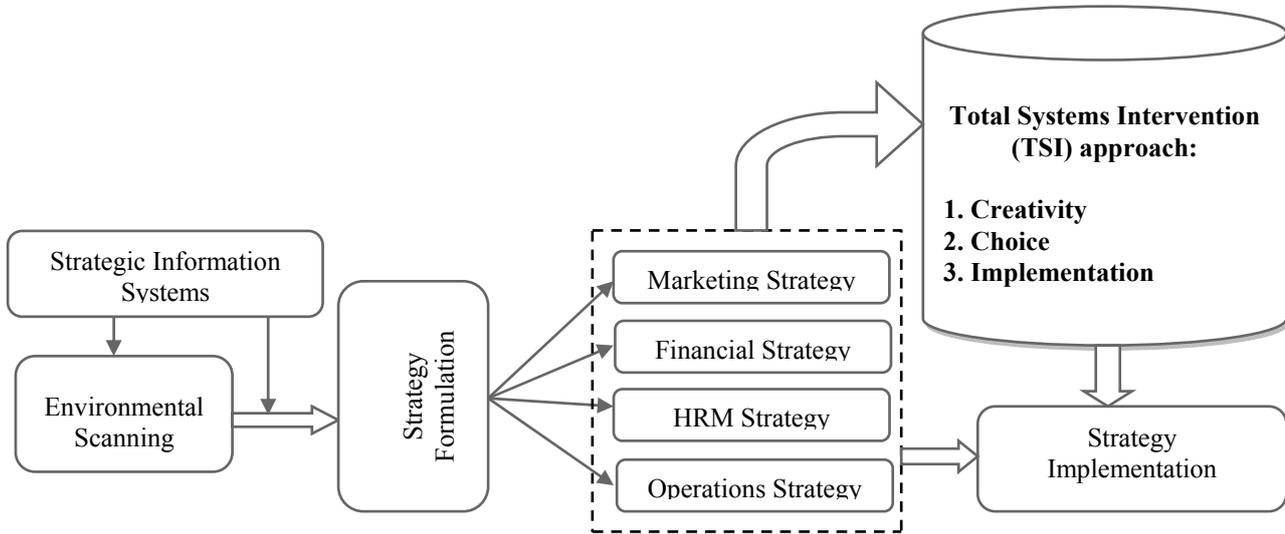


Fig. 3. The research analytical framework

VI. CONCLUDING REMARKS

This innovative research endeavor to propose a unique model for strategic alignment by using the Total Systems Intervention (TSI) as system of systems methodologies for organizational activities in the each market of industry.

For achieve the appropriate strategic planning by use of all the managers and decision makers associated with the process, TSI with the three phases help these decision makers as follow:

In the Creativity Phase: a) Interviews leading to a ‘metaphor picture’; b) Choice Phase leads to Selection of systems based intervention; and c) Implementation Phase leads to Establish and implement specific change proposals.

There metaphors that are very useful for systems thinking and enables decision makers for capturing the best viewpoints of the organization. Such as:

- 1) The organization as a machine
- 2) The organization as an organism
- 3) The organization as a brain
- 4) The organisation as a culture
- 5) The organisation as a coercive system

By using the metaphor pictures, managers can captures the most important priorities of the organizational departments and help them in the process of strategic planning.

As mentioned in the figure 2, TSI integrated the viewpoints of all of the decision makers and mangers in the process of planning and enable the department that cooperating in the strategic planning process.

This approach can apply as follow:

- 1) Enter situation considered problematic
- 2) Express the problem situation
- 3) Formulate root definitions of the relevant systems of purposeful activity
- 4) Build conceptual models of the systems named in the root definitions
- 5) Compare models with real world actions
- 6) Define possible changes which are both desirable and feasible
- 7) Take action to improve the situation

Also, in choosing an appropriate systems methodology or technique, cultural appropriateness should also be considered. Some methodologies will be more acceptable than others due to cultural and experiential reasons. Experience with the methodology is an important consideration. If a methodology has proved successful in an organization, it has already gained some credibility and may be more acceptable. The culture of an organization should also be considered.

Inclusion of the latter recommendation should enable selection of methodologies to be more successful, as the TSI approach would then align methodology selection more closely to the organization’s contextual situation and culture.

By integration all of the organizational resources and in the context of competitive intelligence and dynamic capabilities, it’s more easy to gain sustainable Competitive Advantage in the today’s turbulent market.

Future researchers may develop this model and also investigate the degree of confirmation of this model for other industries.

REFERENCES

- [1] Olascoaga, Ernesto. (2006). Dynamic Strategic Alignment: an integrated method. A dissertation for PhD Certification.
- [2] Molineux, John & Haslett, Tim. The use of Total Systems Intervention in an action research project: Results and implications arising from practice. Department of Management Monash University.
- [3] Flood, R.L. and Jackson, M.C. 1991. Creative Problem Solving: Total Systems Intervention. John Wiley & Sons, Chichester.
- [4] Lane, D.C. 1994. With a little help from our friends: how system dynamics and soft OR can learn from each other. System Dynamics Review, 10 (2-3): 101-134.
- [5] Hames, R.D. 1994. The Management Myth. Professional & Business Publishing, Sydney, NSW.
- [6] Attwater, R. 1999. Pragmatist Philosophy and Soft Systems in an Upland Thai Catchment. Systems Research and Behavioral Science, 16 (4): 299-309.
- [7] Flood, R.L. 1994. I keep six honest serving men: they taught me all I knew. System Dynamics Review, 10 (2-3): 231-243.
- [8] Jackson, M.C. and Keys, P. 1984. Towards a system of systems methodologies. Journal of the Operations Research Society, 35 (6): 473-486.
- [9] Wheelen, T.L., Hunger, J.D. Strategic Management and Business Policy, Addison-Wesley, Reading, MA, 1995.
- [10] Yuksel, I., Dagdeviren, M. Using the analytic network process (ANP) in a SWOT analysis – a case study for a textile firm. Information Science, 2007, 177 (16), 3364–3382.

- [11] Kangas, J., Kurttila, M., Kajanus, M., Kangas, A. Evaluating the management strategies of a forestland estate-the S-O-S approach, *Journal of Environmental Management*, 2003, 69, 349–358.
- [12] Webster. Webster's revised unabridged dictionary. From <http://dictionary.reference.com>, 1998.
- [13] Heritage, A. The American Heritage dictionary of the English language, from <http://dictionary.reference.com>, 2000.
- [14] WordNet 1.6, from <http://dictionary.reference.com>.
- [15] Fonvielle, W. & Carr, L. P. Gaining strategic alignment: Making scorecards work. Part 1, from, 2002.<http://www.bettermanagement.com/library/library.aspx?libraryID=4241>.
- [16] Porter, M.E., What is Strategy? *Harvard Business Review* Nov-Dec, 1996, 61–78.
- [17] Weill, P., Broadbent, M., *Leveraging the New Infrastructure*. Harvard Business School Press, 1998.
- [18] Ciborra, C., De Profundis? Deconstructing the concept of strategic alignment. IRIS conference (<http://iris.informatik.gu.se/conference/iris20/60.htm>), 1997.
- [19] Luftman, J., Papp, R., Brier, T., Business and IT in Harmony: Enablers and Inhibitors to Alignment, <Http://Hsb.Baylor.Edu/Ramsower/AIS.Ac.96/Papers/PAPP.Htm>, Oct 2000.
- [20] Smaczny, T., IS an Alignment between Business and IT the Appropriate Paradigm to Manage IT in Today's Organization? *Management Decision*, 2001, 39 (10), 797–802.
- [21] Henderson, J., Venkatramen, N., Strategic Alignment: A Model for Organisational Transformation, in: Kochan, T., Unseem, M. (Eds.), 1992. *Transforming Organizations*. OUP, New York, 1998.
- [22] Andrews, K., the Concept of Corporate Strategy. Dow Jones-Irwin, Homewood, IL, 1980.
- [23] Reich, B., Benbasat, I., Measuring the Linkage between Business and IT Objectives. *MIS Quarterly*, 1996, 20 (1), 767–783.
- [24] Sambamurthy, V., Zmud, R., *Managing IT for Success*, Financial Executives Research Foundation. Morristown, NJ, 1992.

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