

Flexible Systems Management as an Iterative Process

Sushil¹

Received: 3 November 2016 / Accepted: 8 November 2016 / Published online: 18 November 2016
© Global Institute of Flexible Systems Management 2016

Abstract Iteration is the essence of flexible systems management by repeating the same set of steps with improvement over each previous cycle. Flexible systems management imbibes and balances the hard systems thinking (focused on optimization) and soft systems thinking (focused on learning). The optimization process has two basic steps, i.e. define goals and engineer the system to achieve these goals. The management as an optimization process is also to be carried out using an iterative approach. The other paradigm of management (soft systems thinking) keeps focus on learning which by definition is an iterative process. It is an experimental approach, which caters to the multiple perspectives in a given context. Both learning and optimization, though having different approaches of management, are seen to be iterative in nature. Flexible systems management balances the learning and optimization paradigms in a mutually supportive way. This, thus, takes the iteration at a meta-level between the two inherently iterative processes.

Keywords Flexible systems management · Iterative process · Learning · Optimization

Iteration is the essence of flexible systems management and is a process by which the same set of steps is repeated with improvement over each previous cycle. Flexible systems management imbibes and balances both the hard systems thinking (focused on optimization) and soft systems thinking (focused on learning) (Checkland 1981). In the

LAP (Learning, Action, Performance) framework, it incorporates both learning and action linked with the performance (Sushil 2016). Feedback from performance can lead to both learning and action, thereby balancing both hard and soft systems thinking paradigms. It is interesting to observe that both these paradigms are inherently iterative in nature.

The traditional approach of management is rooted in the concept of optimization, which generally treats it as optimal utilization of resources for achievement of intended goals in the best possible manner. The optimization process fundamentally has two basic steps: first, to define goals and second, to engineer the system to achieve these goals in the most efficient manner under given constraints. This can be achieved by using an algorithm in which certain steps should be repeated in an iterative manner till the optimal solution is arrived. Similarly, management as an optimization process can also be carried out using an iterative approach. It might be accidental to get the optimal goal achievement in one stroke. Usually, we define the performance targets and start the optimization process with a basic feasible solution. The feedback from the performance achieved and its gap from the targeted performance leads to improvement of actions to reassess its impact on performance, thereby leading to optimal performance, iteratively. For example, if a company sets some turnover and growth targets and observes that it is not able to achieve them quarterly and/or annually, it may revisit its marketing strategy related to product, price, place and promotion. Honda used iterative approach on pricing- and product-related decisions to catch up its sales targets of cars in India. In one case, it reduced the price and improved market performance, whereas, on the other hand, it changed the product portfolio by introducing diesel vehicles and regained the declining market share.

✉ Sushil
sushil@dms.iitd.ac.in; profsushil@gmail.com

¹ Indian Institute of Technology Delhi, New Delhi, India



In a similar manner, an organization should have flexibility to optimize performance by following a dynamic and iterative managerial process. This applies to almost all areas of management. For example, it may be required to train and retrain employees till the desired levels of capabilities are achieved. In order to attain desired profitability targets, these have to be revisited every quarter and accordingly the actions such as cost cutting and readjusting margins need to be taken in a step-by-step and iterative manner exhibiting different types of managerial flexibility. According to flexible systems management, flexibility is realized by dynamically balancing and synthesizing multiple options on the continuum from the thesis to the antithesis.

The other paradigm of management (soft systems thinking) keeps focus on learning which by definition is an iterative process. The learning centric management approach is desirable when either or both the basic steps of the optimization process may not be feasible. For example, if the managerial situation is highly ambiguous, uncertain and dynamic, it may not be feasible to define the goals in a precise manner. Even if we are able to define the goals in a broad manner, it may not always be possible to derive the optimal performance by engineering the system. This provides a fertile ground for learning-based approach for flexible systems management. Learning by nature is an iterative and evolutionary process. It is an experimental approach, which caters to the multiple perspectives in a given context. Different stakeholders view the organization from their own perspective, which at times could be conflicting in nature. It requires a continuous and iterative process of interaction and experimentation of different solutions. Experimental learning is derived by the feedback of the previous process resulting into continuous improvement in a step-by-step manner.

In the domain of human resource development, employee training is giving way to learning. Learning has been realized as a more powerful way of flexible capability building, which not only is limited to individuals but is crucial at the organizational level as well. Organizational learning is fructified by questioning the existing mental model with every feedback and fine-tuning it accordingly. In the leadership of Jack Welch, GE developed a powerful organizational learning model. As the current business situation is highly turbulent and ambiguous, learning on a continuous basis develops a culture in which the organization iteratively evolves and attains higher levels of performance. There are notable failures in world business, where leading organizations miserably failed for not being able to capture the market feedback and thus did not learn about the changing customer needs. Nokia, in handset business, is a worth mentioning case, which could not

realize (in time) about the changing landscape with the evolution of smart phone, which led to its downfall from the leadership position to almost no where.

Both learning and optimization (though have different approaches of management) are implemented using iterative processes. Such a balance of intent and emergence is carefully blended in the framework of crafting strategy (Mintzberg 1987). Flexible systems management balances the learning and optimization paradigms in a mutually supportive way. We learn from the existing reality in a step-by-step manner, and as the clarity develops by systemic learning, the goals can be set more sharply and can also be attempted to obtain their optimal achievement. Once the system is optimized with set goals, it gives further insights to reach higher-level goals so as to achieve higher level of optimality. This, thus, takes the iteration at a meta-level between the two inherently iterative processes. Such meta-iteration between learning and optimization makes the organization flexible at different levels. Learning lays the foundation for flexibility and innovation enhancing vitality of the organization. Learning, innovation, flexibility and entrepreneurship (LIFE) are the meta-processes for organizational vitalization. In order to realize higher potential for the organization, it should learn about the expectations of major stakeholders to achieve multi-objective optimization through various iterations. It is important to learn about expectations of both internal and external stakeholders as well as direct and indirect stakeholders (Freeman 1984). Aligning the stakeholders' expectations with organization's strategic objectives would bring out higher level of fulfillment for both the stakeholders and the organization. Such an alignment would take place iteratively by incorporating strategic flexibility to dynamically balance the stakeholders' as well as organizational needs. The stakeholders as well as organizational flexibility would form a basis of a holistic and dynamic performance management system that is operationalized by using an iterative approach.

References

- Checkland, P. (1981). *Systems thinking, systems practice*. New York: Wiley.
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Boston: Pitman Publishing Inc.
- Mintzberg, H. (1987). Crafting strategy. *Harvard Business Review*, 65(4), 66–75.
- Sushil. (2016). Theory of flexible systems management. In Sushil, J. Connel & J. Burgess (Eds.), *Flexible work organizations: The challenges of capacity building in Asia, Flexible systems management* (pp. 3–20). Springer: New Delhi.