



SST 40 – Flexibility



A sailing boat is crossing a large bay. At the start of the journey the wind is steady and conditions are favourable. The crew set the sails and begin making good progress.

As the day continues, however, conditions begin to change. The wind shifts direction, its strength increases and decreases, and occasional squalls pass through the area.

If the crew ignore these changes and continue sailing exactly as before, the boat will gradually drift off course. In more severe conditions, damage or even disaster may result.

Instead, the crew continually observe their environment and adjust their behaviour. They alter the sails, change course when necessary, and respond to changing conditions as they arise. By adapting, they remain effective despite an environment that is constantly changing.

The success of the voyage depends not only on the boat itself but also on the crew's ability to learn, respond, and adapt.

The same principle applies to organisations, businesses, governments, and societies. Conditions rarely remain constant. Technologies change, populations change, economies change, and new challenges continually emerge. Systems that cannot adapt eventually struggle, regardless of how successful they may once have been.

This capacity for adaptation is known as Flexibility.



Formal Description

Flexibility refers to the capacity of a system to adapt to changing circumstances. It reflects the ability of a system to modify its behaviour, structures, processes, or strategies in response to changing environmental conditions.

Flexible systems can accommodate change while maintaining coherence and functionality. Inflexible systems often become locked into patterns of behaviour that were once effective but are no longer suited to current circumstances.

Plain English Explanation

No system operates in a completely stable environment. Organisations, businesses, governments, and communities all exist within changing circumstances.

New technologies emerge. Economic conditions fluctuate. Population needs evolve. Competitors appear. Regulations change. Unexpected events occur.

Because of this, long-term success depends not only on current performance but also on the ability to respond when conditions change.

Flexibility is the capacity to make those adjustments.

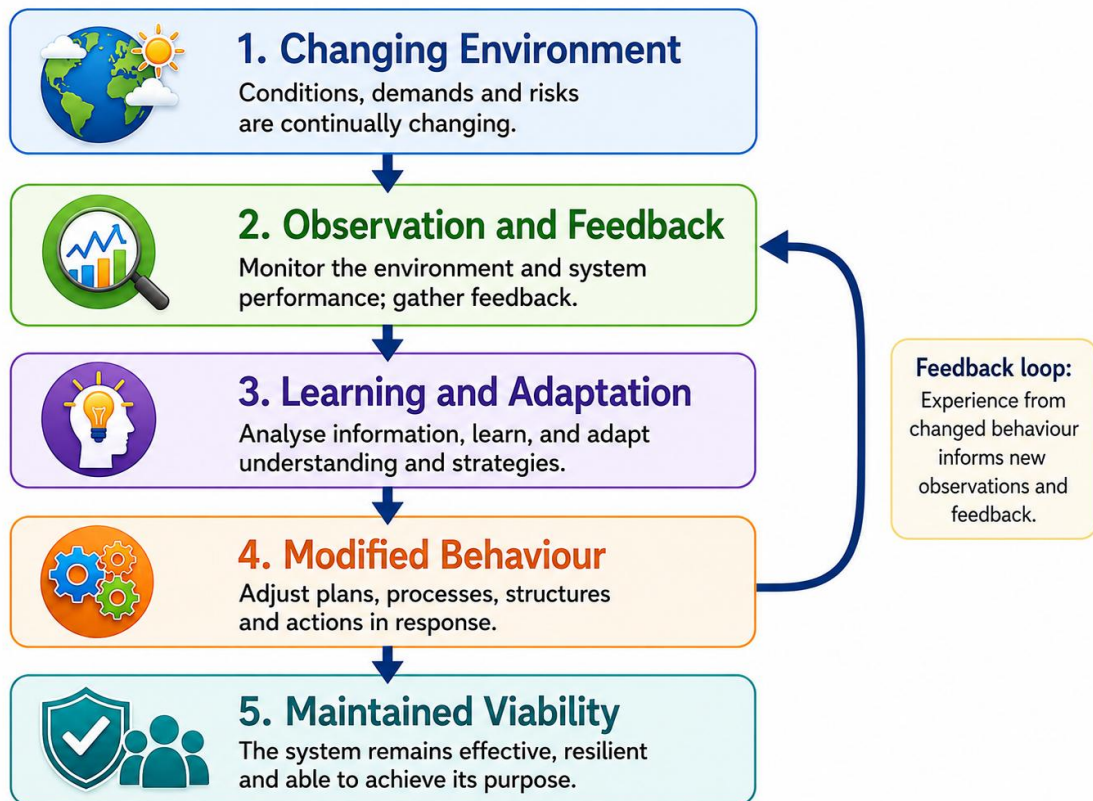
Learning occurs through cycles of observation, feedback, evaluation, and adjustment. A flexible organisation is willing to learn from experience. It notices when existing methods are no longer working and is prepared to experiment with alternatives. It can modify procedures, develop new capabilities, and adapt to changing circumstances.

An inflexible organisation may continue following familiar routines even when those routines are becoming ineffective. It may resist change, ignore feedback, or struggle to develop new ways of operating.

Flexibility is therefore closely connected to learning. Systems learn by observing the results of their actions, comparing those results with their goals, and making adjustments when necessary.

Flexibility does not mean changing constantly or abandoning all stability. In fact, highly flexible systems often possess strong core structures and purposes. What makes them flexible is their ability to adapt specific behaviours and processes while maintaining overall coherence.

For this reason, flexibility is often one of the most important contributors to long-term viability. A system that performs well today but cannot adapt may eventually decline. A system that learns and adapts can often overcome challenges and remain viable despite changing conditions.



Example 1 – A Business

A company recognises that customer preferences are changing. Rather than continuing to produce outdated products, it develops new offerings, retrain staff, and adopts new technologies. Its flexibility helps it remain competitive.

Example 2 – A Public Service

A healthcare service encounters a growing elderly population with different needs. New procedures, technologies, and service models are introduced to respond to these changes. Adaptation improves long-term effectiveness.

Example 3 – A Community

A coastal community experiences increasing flood risk due to changing weather patterns. Residents adapt by improving flood defences, revising emergency plans, and altering development practices.

Provenance and Links

The importance of adaptation is a central theme within cybernetics, systems theory, evolutionary theory, and organisational learning. W. Ross Ashby highlighted adaptation as a prerequisite for survival in changing environments. Stafford Beer incorporated adaptive capabilities into the Viable



System Model. Peter Senge explored organisational learning as a means of improving long-term effectiveness.

Within the Systemic Diagnostics framework, Flexibility represents one of the four primary viability dimensions. It focuses attention on the system's capacity to learn, adapt, and respond to changing circumstances. Together with Potential, Flow, and Capability, it provides a structured means of assessing overall system viability.

Practical Exercise

Choose an organisation, business, public service, or community that you know reasonably well.

1. Describe one significant change that the system has faced during the last few years.
2. How did the system respond to this change?
3. What evidence suggests that the system is flexible or inflexible?
4. What mechanisms exist for learning and adaptation?

What changes could improve the system's ability to adapt in the future?