Systems Thinking Reflection: Project Delays vs. Resource Allocation

Emphasizing two feedback loops, the graphic illustrates a complex interplay between project delays and resource allocation in a system. Reallocating resources to the delayed project helps balance the loop, specifically the Problem Solving Loop (B1), which lowers delays. On the other hand, the Resource Shifting Loop (R1) is a reinforcing loop that generates systemic instability: reallocating resources from other projects results in delays for those projects, therefore raising the whole portfolio risk and extending delays. Reallocating resources fixes a temporary issue but causes fresh delays elsewhere, hence fostering a cycle of increasing project instability (Senge, 2006).

Here, a systems thinking approach is essential, as conventional linear thinking would overlook the cascading impacts and focus solely on addressing the immediate project delay. Systems thinking helps leaders understand how actions are interconnected and how feedback loops operate especially how one problem can exacerbate another (Sterman, 2000). It offers a whole view that inhibits compartmentalized decision-making and advances long-term, sustainable solutions (Meadows, 2008).

Especially in project and portfolio management, systems thinking helps prevent the "firefighting" trap in real-world leadership when resources are constantly shifted reactively. Instead, it promotes creating structural answers to boost adaptability, including reframing project scopes, enhancing resource capacity, or funding cross-functional training. Systems thinkers help leaders navigate complexity, mitigate unexpected consequences, and foster organizational resilience.

Project Delays vs Resource Allocation - Causal Loop Diagram Pressure to Reallocate Reallocation to Project Instability (Understaffed) Other Project Delays Increase Leaend: R1: Resource Shifting Loop = Positive relationship (same direction) - = Negative relationship (opposite direction) (Reinforcing - creates instability) Balancing loop Reinforcing loop **B1: Problem Solving Loop** (Balancing - short-term fix)

Figure 1

Note. This image is from my ELR web portfolio.

References

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