

Lock-in (Decision-Making)

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Lock-in can be seen as the escalating commitment of decision-makers to an ineffective course of action. It concerns institutional lock-in as compared to technical lock-in of which the QWERTY keyboard is a famous example. The decision-making process is characterised by various informal and formal decision-making moments and decision-makers can become committed to the project before the formal decision to build was taken. The formation of commitment is not necessarily bad, but when commitment turns into lock-in, it has by definition a negative influence on the project performance. Lock-in can occur at the decision-making level or at the project level. There are possibilities to avoid lock-in when decision-makers can be made aware of this phenomenon. However, lock-in can also be used intentionally, in which case, it is much more difficult to prevent and hence manage cost overruns.

Decision-making process

The decision-making process of large infrastructure projects is marked by the formal decision to build the project. However, there are several possible moments in the decision-making process before the formal decision is taken at which decision-makers are committed to the project.

The extent of which decision-makers are committed to the project is of importance here. Early commitment, commitment to the project before the formal decision to build has been taken, is in itself not necessarily negative. It could be advantageous to the decision-making process as it could enforce a decision. This eventually could limit delay and contribute to the projects' performance.

Early commitment can result in negative outcomes once the commitment turns into escalating commitment and lock-in. As lock-in is based on escalating commitment, it has, by definition, a negative influence on project performance. Lock-in has the potential to explain the large cost overruns in large scale transportation infrastructure projects.

Formation

Lock-in with respect to decision-making (on large infrastructure projects) is created when sub-optimal policies are used as a consequence of e.g. path dependency, even though a better alternative is present. The term refers to the escalating commitment of decision-makers to an ineffective course of action (institutional lock-in as compared to technical lock-in). Escalating commitment itself refers to the style of psychological coping associated with the inability to withdraw from obligations. The process of escalating commitment is also known as "entrapment" , the "sunk-cost effect" , the "knee-deep in the big muddy" effect , and the "too-much-invested-to-quit" effect.

Occurrence

Lock-in can occur both at the decision-making level (before the decision to build) and at the project level (after the decision to build) and can influence the extent of overruns in two ways:

The first involves the "methodology" of calculating cost overruns according to the "formal decision to build". Due to lock-in, however, the "real decision to build" is made much earlier in the decision-making process and the costs estimated at that stage are often much lower than those that are estimated at a later stage in the decision-making process, thus increasing cost overruns.

The second way that lock-in can affect cost overruns is through "practice". Although decisions about the project (design and implementation) need to be made, lock-in can lead to inefficient decisions that involve higher costs. Sunk costs in terms of both time and money, the need for justification, escalating commitment, and inflexibility and the closure of alternatives are indicators of lock-in.

Prevention

There are different types of lock-in; conscious/unconscious and intentional/unintentional lock-in. Some of these types of lock-in can be avoided. Decision-makers can be made conscious about their behaviour, for example by confronting them with the lack of sufficient alternatives. When these decision-makers are willing to change their behaviour and consider other alternatives, they are less likely to become committed to one project alternative and hence, the chance for lock-in can be partly avoided.

However, other types of lock-in are more difficult to control, especially intentional lock-in. Intentional lock-in is the result of specific behaviour of parties that act deliberately in the interest of their project.

Cost overruns may thus be partly unnecessary or avoidable if such deliberate creation of lock-in had not taken place, and be partly unavoidable due to the incapacity of decision-makers to make optimal decisions.