Systems-Based Engineering Decision Example

Toyota's Decision to Slow Down Production for Employee Training

Toyota made a bold and surprising decision in 2015 to purposely slow production at its Kentucky plant, as it was dealing with problems with its accelerators being stuck. Toyota chose to improve the quality and level of craftsmanship in its company by accelerating to achieve a short-term delivery goal. In doing so, Toyota decided to focus on intensively enhancing quality standards and craftsmanship over a period of time. This indicates that they are very systems-thinking types and that they are committed to the long term rather than the short term. The amount manufactured in the short term decreases, and the product being manufactured is being produced correctly. The long-term benefits for the company of doing this are that its product will be more reliable, have lower warranty claims costs, and enjoy guaranteed repeat purchases from customers. Toyota understands that if you optimize one part of a system, but there are other bottlenecks in the system, or if the other items in the system are not optimized, then the potential for it to be even more expensive remains (Hino, 2024). This is also related to the fact that we discussed how systems-based engineering decisions are more appropriate than other engineering decisions. In Toyota’s case, they sacrifice short-term revenue to achieve sustainable value, better quality outcomes, and, most importantly, the trust of their employees.

Reference

Hino, S. (2024). *Inside the mind of Toyota: Management principles for enduring growth*. CRC Press. https://books.google.com/books?hl=en&lr=&id=xogoEQAAQBAJ&oi=fnd&pg=PR7&dq=In+2015,+Toyota+temporarily+slowed+its+production+at+a+key+plant+in+Japan+to+provide+intensive+retraining+for+its+workers+on+quality+standards+and+craftsmanship&ots=cYYoaahQun&sig=-i942R9sj13zakSd2ELMOIspGW8