

# Concepts...

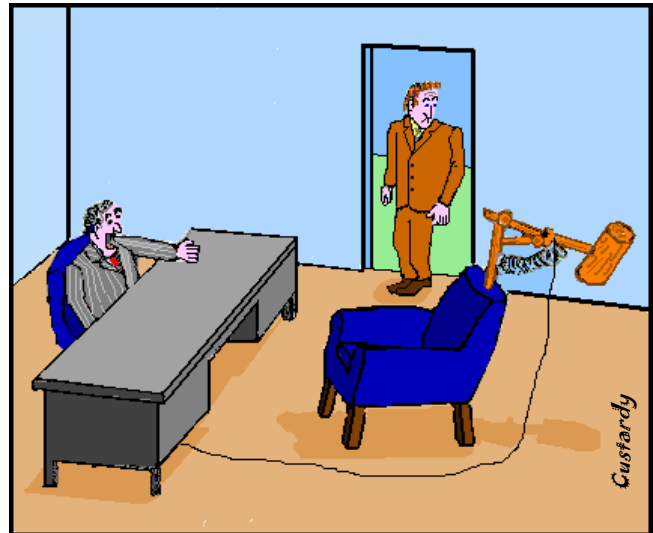


"Concepts" is published by Parvidya Design Partners to raise as many questions as it answers. It is driven by the belief that the industry, its products and its services are ever evolving. The ideas reflect the challenges faced in the continuous journey of innovation and improvement.

## Automatic Control:

Soon after electric guitarists started experimenting with distorted amplification, Jimi Hendrix could famously generate a series of previously unheard but controlled sounds and squeals from his guitar in the midst of a performance. He was effectively managing the feedback of his amplification system, which unfortunately for us mere mortals, usually manifests itself as a high pitched microphone scream at our most important presentations. The feedback occurred as the sound from his guitar came out the speakers to re-enter the guitar's pick-up to be re-amplified to the speakers and back to the guitar again, and again and again. Uncontrolled it would be a horrible squeal but with controlling his position to the speaker, the strings vibrating and the volume of the guitar a host of new 'tolerable' sounds could be produced.

**Automatic Control** in engineering is the study, analysis and management of feedback in process systems. All processes include the series: input, process, and output. However, if the output is to be varied or "controlled", a feedback loop has to be introduced into the system so that the input or process can be varied to suit. Feedback may already be present in the system, some may be ignored and some may have to be artificially created. Within the financial services there are many examples of these feedback loops. The Market changes dynamically with a host of information and data fed to a trader whether it is wanted or not. Client surveys voluntarily provide data on service performance, MIS may provide information related to quality or productivity and errors and losses may be reviewed for underlying causes to help improve processes and controls. Process controls are passive feedback loops that are invoked upon certain conditions being met.



*"I appreciate the concerns that you raised in the annual meeting, Dobson. Let's discuss your ideas in what I call the 'chair of understanding'!"*

The critical drivers with automatic control are the amount of feedback and the ability to vary it. Too much and Jimi deafens us with a scream, too little and he is left playing a few unimpressive notes.

In utilizing automatic control within the financial services, the process is not 'automatic'. The key processes and their feedback loops have to be identified. Then, the associated variables that can be controlled or managed have to be quantified.

An example would be measuring market risk with the market and underlying portfolio data being the managed variable and the risk policies being the controlled variable.

In conclusion, a desired outcome has to be defined and the feedback and the reaction to it have to be decided. From that position the process output and the feedback can be measured and monitored.

*Parvidya Design Partners would be pleased to discuss the realization of these concepts with you further. We thank you for your consideration.*

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