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Is there a 'Stairway to Asset Management Heaven?'

Abstract

Is there a 'Stairway to Asset Management Heaven'? Since the late 1980s maintenance and asset management managers and consultants have used the DuPont Chemicals 'Stable Domain' asset management model to describe the steps to world-class operational performance. From its beginning companies and consultants made the incredible presumption that it is right and tried to use it to improve business performance. The model's veracity is scrutinised. It does not work for all situations and so is not a model to heartily follow but a theory to deeply question.

Keywords: asset management model, stable domain theory,

The Stable Domain Model of Figure 1 results from DuPont Chemicals mid-1980's research into the variable performances in their world-wide operations[1]. Responding to increased international competition DuPont investigated what to do to lower their production costs. They reviewed their 150-plus operations world-wide and found businesses making comparable products in comparable plants with results ranging from 'dogs' to 'stars'. Analysis of the reasons for the erratic results led to creation of the Stable Domain Model to explain the performance. It has since been misguidedly referred to as Enterprise Asset Management's 'Stairway to Heaven'[2].

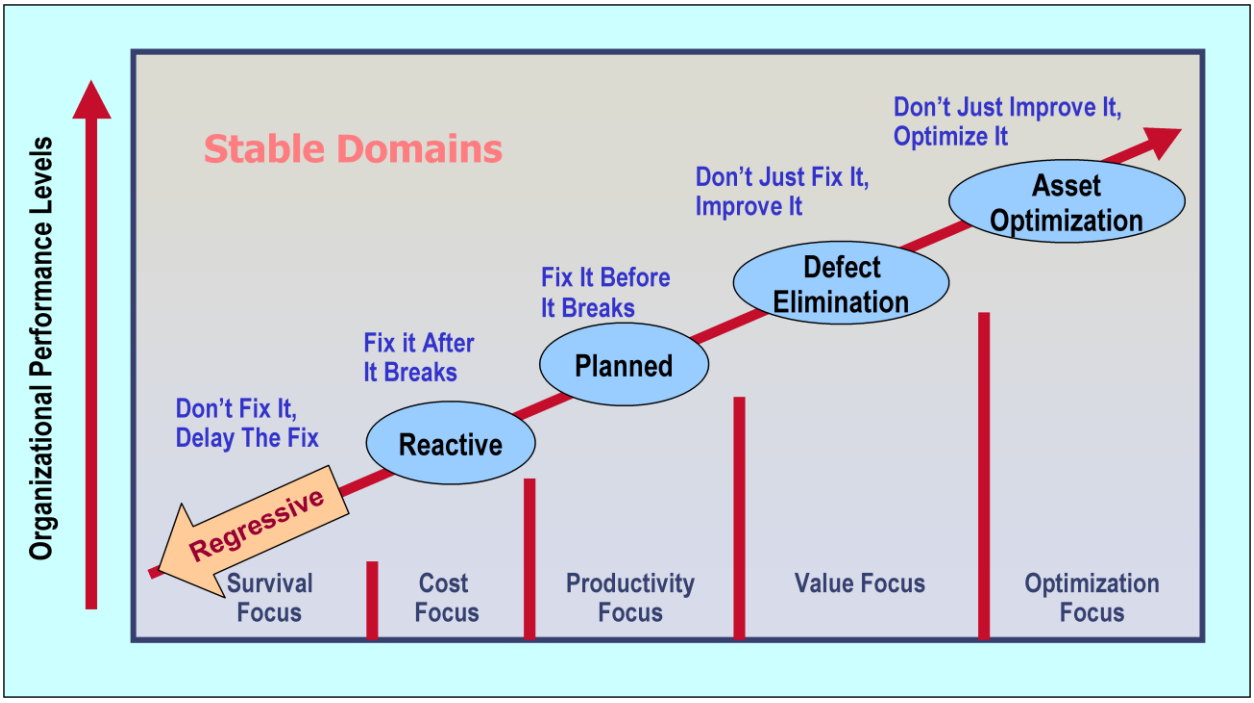

Figure 1 – The DuPont Stable Domain Model for Asset Management.

The model was imbued with the requirements listed in Figure 2 that were necessary for a stable domain. Naturally managers and consultants concluded that a company had only to adopt the 'necessary' practices and it would then morph to that level of performance[3]. The model was used in DuPont with great short-term success but improvement was not self-sustaining. The current

[1] Hutnich, Robert, '*Maximising Operational Efficiency Course', 2004, E.I. DuPont de Nemours Co*
[2] Page J., Plant R.,, 'Stairway to Heaven', Led Zeppelin IV album, 1971
[3] Ledet, Winston., *'Making the Move Toward a Learning Organization: A Classic Journey of Change'*, Ledet Enterprises, 2002

view is the domains are not naturally stable[4], requiring continued support of a devoted corporate leadership and on-going financial liability to sustain business processes, skills and knowledge.

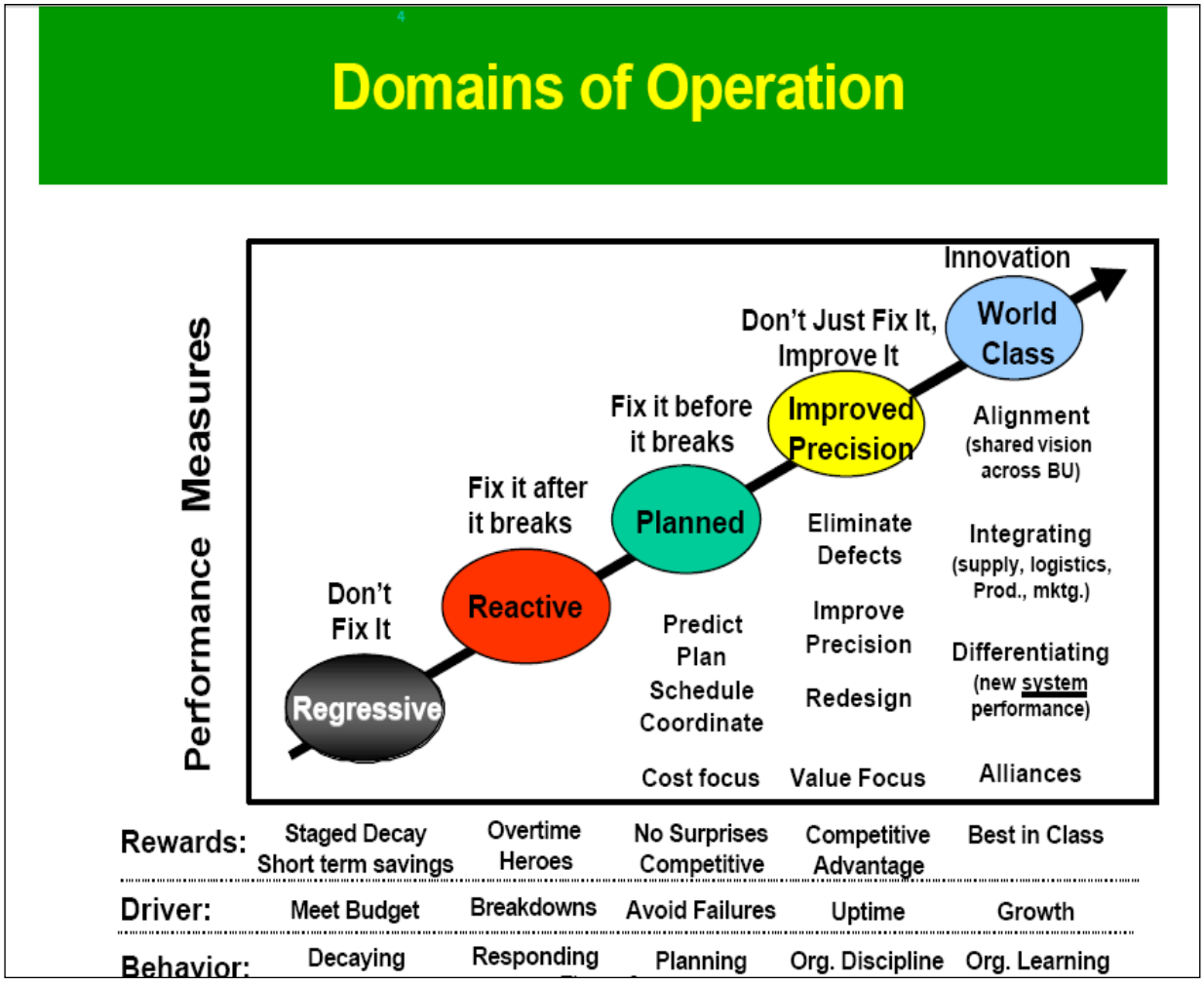

Figure 2 – Stable Domain Model with Business System Requirements.

Without independent proof opportunity-driven consultants and industrial companies saw DuPont's early success and quickly adopted the model as being good asset management strategy; wrongly assuming it represented a sure path to world-class results and a solution to industry's' operational performance problems. Presentations of idealistic strategy showing the necessary attributes and methodologies to become world-class, like Figure 3, were shown to trusting corporate management. Irrationally, because there was no scientific proof, organisations assumed the 'Stairway to Heaven' was a matter of adopting learnable practices and using the appropriate systems, tools and software.

The model unfortunately showed a direct pathway from one level to the next, culminating in the 'commercial heaven' of world-class performance. An implied direct pathway between domains that can be traversed from lower to higher was assumption. More assumption was that attaining the stated requirements for each level would make an organisation into such a performer.

With the model listing the 'necessary' requirements for achieving excellence, consultants world-wide also began using it to audit companies' maintenance and asset management performance. They constructed audit questionnaires in total confidence that the Stable Domain Model held the

[4] Ledet, Winston et al, 'Modeling Sustainable Organizational Change *Why did change at BP Lima sustain while the change at DuPont faded away?' Ledet Enterprises, 2005*

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right answers. From the audit responses they plotted company positions on the model, like that shown in Figure 4, and absurdly stated that "this is where your business is today and here is how you get to the next level of performance tomorrow".

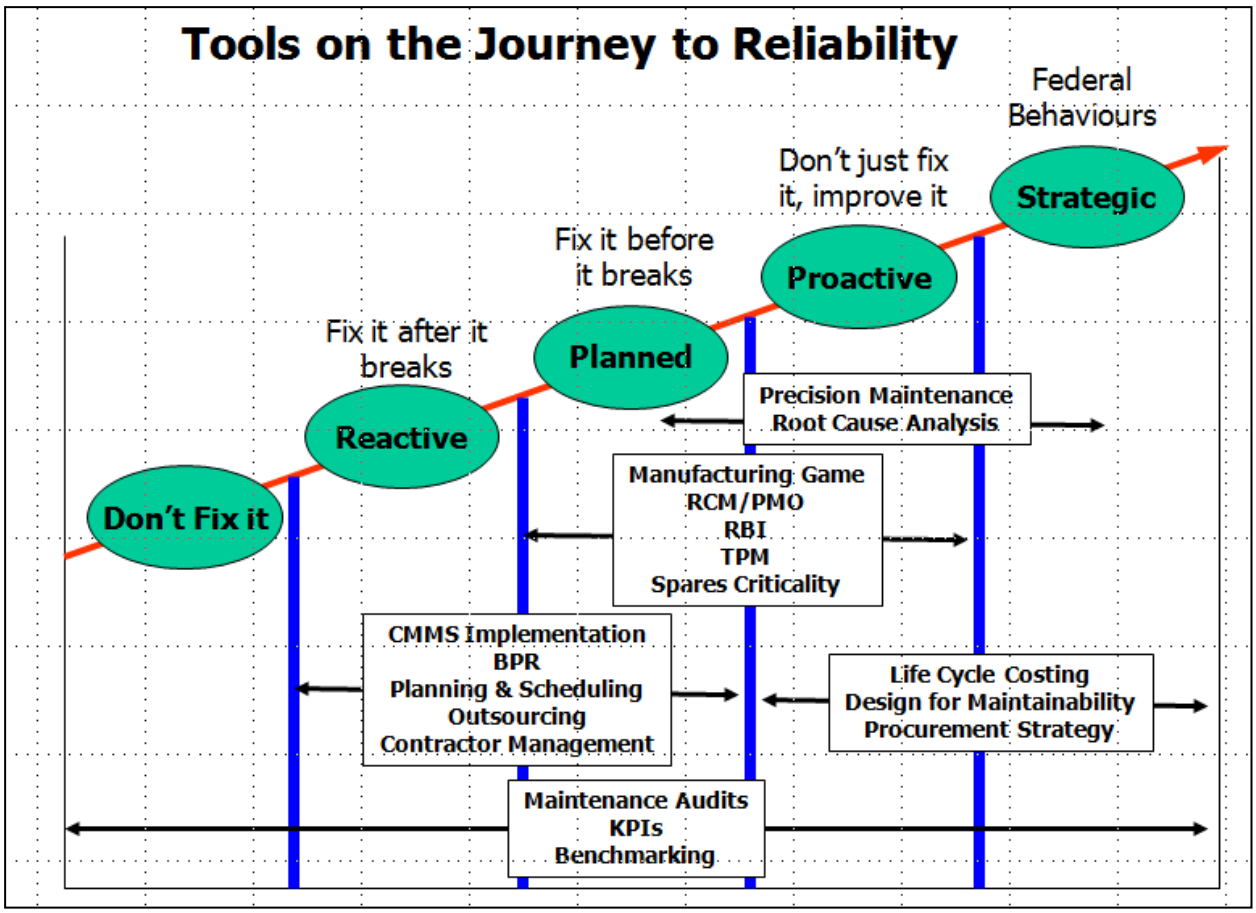

Figure 3 – Stable Domain Model with Assumed Required Competencies and Methodologies

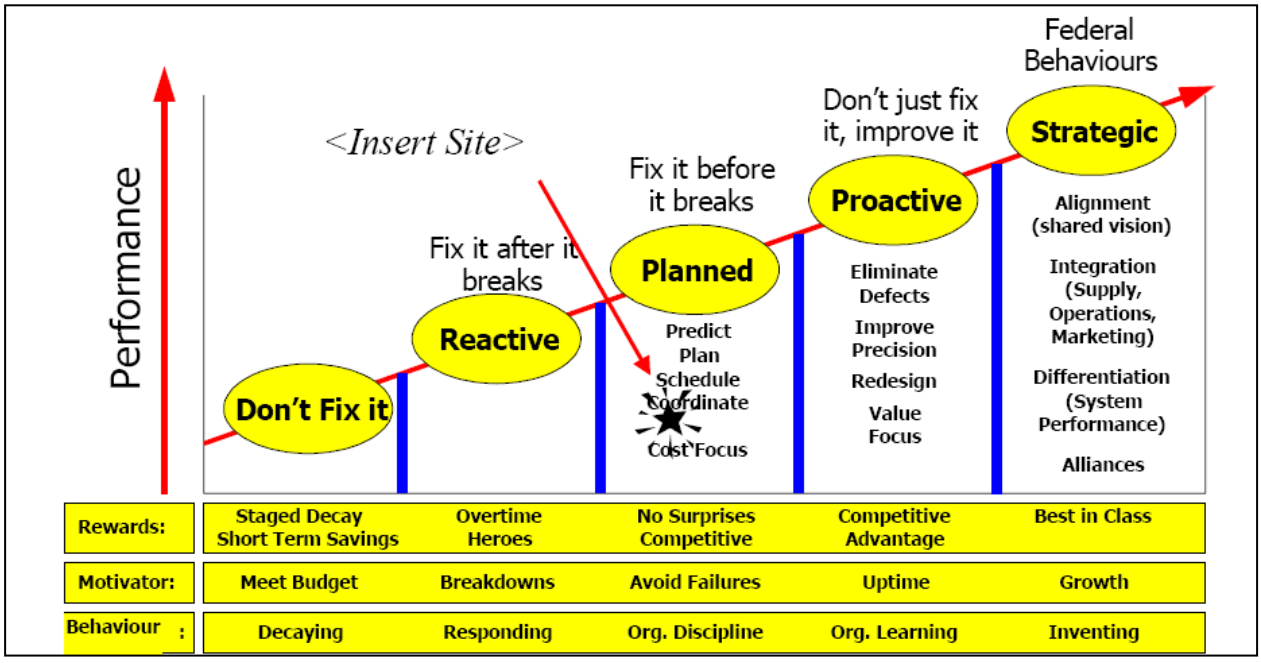

Figure 4 – Stable Domain Model was Assumed Suitable for Auditing Purposes

The Stable Domain Model is wobbly and shaky. There are companies that tried it and found it unworkable[5]. At best it is a theory to be tested and improved and not a model to be used with unquestioned acceptance and belief.

There is an alternate 'theory' of how to get to world-class reliability performance. It is based on achieving levels of reliability and quality excellence. The 'theory' helps clarify what is required at each level of excellence and what will happen when you get there. In this 'theory' each 'domain' is truly stable because companies already produce products, utilities and services at each level of excellence without requiring additional and continual inputs from management. Figure 5 shows the 'Process Reliability and Quality Excellence Asset Management Theory'.

Figure 5 – Process Reliability and Quality Excellence Asset Management 'Model'

The 'theory' proposes that to move from one level of reliability performance to the next you introduce the processes and practices needed to achieve that level of reliability. You change your life-cycle business processes to create better processes with fewer quality failures. In this 'theory' you can even 'jump' straight to world-class asset management by copying a world-class quality performer. This 'theory' guides companies to model those much better than themselves; by so doing they learn what to do, how to do it and how well it must be done to become the company they want to be. Making the skills, cultural and business process changes needed will be hard work and initially expensive, but the reliability that will result is clear to everyone. However this is just theory, and theories need to be tested and not believed until proven true, or their working limits are surely known.

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[5] Blom, Neil., *'Asset Management – Quo Vadis (Where to next)'*, Asset Management Council Seminar, September 2009, Perth, Australia