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Industrial Operations / Information Processing Convergence

Control Chain Management Body Of Knowledge

MI – Cases studies

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Introduction

- **As any organism, enterprises age and die - The life expectancy of enterprises barely reaches 40 years**
- **However, compared to biological organisms, nothing prevents an enterprise to last longer**
 - Every entity is replaceable
 - Its purpose, organisation, location can be changed at will
- **Intelligence is a main factor of survivability**
 - The death of an enterprise is often caused by lack of it: actions or non actions do not result of appropriate consciousness of the environment and creativity for addressing it
- **Intelligence raises easier in systemically consistent enterprises**
 - VSM is a neat model to assess how an enterprise can leverage its components' capabilities

Introduction

- **The following example illustrate some notorious situations where systemic intelligence seems responsible for the fate of the quoted companies**
- **In no cases the situations result of single human decision, though the system intelligence often speaks through human voices, decisions, actions.**
 - The same individuals in other conditions would have make better or worse decision
- **The following discussion relates to a lifetime observation of big companies which exhibit higher and lower intellectual abilities, with potential impact (not always) on their survival)**

Agenda

- **Case 1: Resist innovation**
- **Case 2: Break the toys**
- **Case 3: Dig the grave with revenue**
- **Case 4: Dominant, but not arrogant**
- **Case 5: Autopoiesis**
- **Case 6: Out of sync**
- **Case 7: Out of Sync**
- **Case 8: Micromanagement**

Case 1: Broken loop, inappropriate negative feedback

- **The company was a leader for building power boilers**
- **Commissioning responsible**
 - “Better making 100 times the same mistake than making 100 different mistakes”
 - => Unable to scale up a revolutionary process - India made it
- **Financial Management**
 - “Whatever happens, maintain profit”
- **It has disappeared, swallowed by a “modest” escalator company**

Case 2: Ineffective system 4, death of system 1

- **Automation engineering**
 - Every machine has its own specific control
 - Poor diagnostics
 - Needs 6 months to teach a maintainer
- **Development / industrialization**
 - Pilot with Siemens, Production with Schneider: here is the code!
- **The big boss**
 - “Our company will not have factories anymore – better contracting, keep R&D and sales” - a motto for some time years ago...
 - It basically corresponds to erasing the only “raison d’être” of the system...
- **Once the absolute leader in Optical Fibre**
 - The company is not anymore acting in this business

Case 3: dig the grave

- **A big non for profit organization observed its membership declining by 50% in 20 years**
- **It had significant savings that began to melt**
- **Intense discussions without practical decision**
- **Considered to cut costs wherever is possible**
- **Only the membership department (collecting membership fees) was making money...**
 - So membership benefits keep decreasing,
 - Then membership applications...

Case 4: Dominant, not arrogant

- **The World leader in gases for industry**
- **Some systemic features**
 - Maintaining a culture and mutual understanding: Frequent move of people between department and positions
 - Competitors relationship: Though very creative and successful, They respect and study closely competitors' achievements,
 - Flexible, relatively autonomous entities
 - Limited number of hierarchy levels

Case 5: Autopoiesis

- **The R&I department of a world leader in cosmetics**
- **Specifics**
 - No stated organization! – keeps changing without prescriptive process: creativity first
 - Leadership (system 5/3) thinks and speaks, does not impose decisions
 - Operations (system 2/1) act on their own based on their perception of their fit in the enterprise and local constraints
- **Drawbacks**
 - R&I system 4 hardly handles technical/cultural changes
 - Extremely difficult for contractors to help them in transformation (system 4)
 - But R&I being system 4 of the enterprise is itself efficient as is!

Case 6: Out of Sync (timing)

- **A world leader in Tires manufacturing**
- **IT is handles by any departments,**
 - A complex and hard to managed IT asset
- **Every 4 years, they launch a big IT transformation project**
 - Involving a major, expensive consulting company
- **Nothing happens actually**
 - Business requirements and technologies have evolved faster than the study background

Case 7: Out of sync (addressing wrong issues)

- **A major agro-chemical company**
- **Launched an MES pilot project**
- **Tried to address every possible “requirements”**
 - Expressed by “business representatives” who where “creative” often mixing up requirements and database design
 - End up with a smart, complex solutions
 - Ineffective, not deployable after 4 years of efforts
- **The strategic objectives have changed**
 - Back to square one

Case 8: Micromanagement

- **A world leader in food industry**
- **They successfully deployed a global interoperability framework for production planning and monitoring**
- **However, they insisted to handled machinery performance in the multi-plants, multinational reporting**
 - Clogging interfaces with the report of machines breakdown and efficiency