

SODDISFARE IL CLIENTE ATTRAVERSO L'INNOVAZIONE: LA CATENA DEL VALORE NELL'ERA POST DIGITALE

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CIÒ CHE NON SI POTEVA FARE QUALCHE ANNO FA, ORA SI PUÒ FARE AD UN COSTO SOSTENIBILE



Examples of recent innovations in the value chain





operations (picking, ...)

A flash deep dive in quality management: the power of AI and
vision systems to optimize process quality and contribution margin



There is a huge number of cases where Total Cost of Quality can be reduced by 30-40% by introducing new technologies for process control and quality inspection



- What is the best progression strategy?
- What are the key dimensions?
- Are Lean, TPM and Six Sigma the levers or just pre-requirements?
- Is Digital the main way to make the difference ?



- Process
- Human Dynamics
- Digital
- ... to be used simultaneously: CONCURRENT DIGITALIZED VALUE CHAIN







A PHD PROGRESSION EXAMPLE THE SUPER MACHINES CASE STUDY





- SUPER MACHINES Spa design, make and sell machines worldwide
- They also ensure after-sales services for maintenance and support for machine setting and process optimization
 - > the starting point was far from excellence:
 - Good machine performances (but not differentiating)
 - Poor customer services for repairs (high time to serve, low reliability)
 - High internal cost (high cost to serve and huge working capital)
- The case shows the VALUE CHAIN transformation according to the PHD axes



		KPI Liv.1	AS - IS	TO – BE (target setting)	Gap (Losses)
	OTTICA CLIENTE: SERVE	Reliability (OTIF)	xx1 [%]	xx2 [%]	Δ 1
		Responsiveness (TTS Lead Time)	yy1 [giorni]	yy2 [giorni]	Δ2
	OTTICA INTERNA: COST	Cost To Serve (CtS)	zz1 [€]	zz2 [€]	Δ3
		Working Capital	qq1 [stock coverage]	qq2 [stock coverage]	Δ 4



The scope is "after sales services in Scandinavian market"







Local DC

transportation





Part supplier



Two main steps in the transformation



First transformation step: from AS IS to RESPONSIVE

LEVEL 5

Real Time Network

Sales growth and value creation in interconnected network

LEVEL 4

E2E Integrated & Synchronized VC

End to End Integration based on Customer Demand Pull

LEVEL 3

Responsive Flexibility and Speed Agile, Simplified, Effective

LEVEL 2

In-Control

Standards Adherence Performing to Standard



Restored Standards Defined, Foundations ensured Segmentation of value chain, identification of current performances and target setting by type of intervention





Some of the elements needed for transformation from AS IS to RESPONSIVE



Removing any of these three legs would result in weaker or not sustainable progression

Second transformation step: from Responsive to Real Time Network



- SUPER MACHINES want to create a commercial offer to generate additional margin from enriched after-sales services being perceived by customers as a partner in improving the value of their operating systems through OEE and Yield improvement
 - > measure and diagnose line performances in real time
 - > give assistance for line improvement
 - > give guidelines for line stabilization
- The ultimate ambition is to be a partner capable to provide solutions (hardware, software and consultancy) for an ideal asset management strategy
 - > E.g. enabling a reduction in Life Cycle Cost of customers lines and an increase of their profitability by exploiting in the best way SUPER MACHINES 's superior machines

Customers perceive real value from this kind of service enrichment Cost mapping with the areas of value creation and cost reduction

Efeso Example



The improvement process elements



- Introduce an effective measurement system to collect realiable data on all machines
- Understand potential for improvement
- Prioritize improvement actions on the most relevant losses



- Identify control parameters responsible of the performance (root causes)
- Set parameters control limits above which losses occurs (e.g., liquid temperature vs. bad material quality)
- Define the set solutions that could eliminate the root cause



- Analyze alternative solutions and select those that maximize return for the client
- Offer a tailored service to support clients in implementing corrective actions
- Support the client in monitoring the results an in holding the gains

Example of superior value proposition achieved through sensorization, root cause analysis and AI



Some of the elements needed for transformation from RESPONSIVE to REAL TIME NETWORK



- Identification of CTQ parameters
- Machine modeling with physical and chemical principles
- Design for reliability and serviceability
- Design for Quality
- Learn from Experience

- Listening to users
- Adoption of new criteria in design
- Smart collaboration with suppliers
- Change of design methods
- Will to use the digital problem solving
- Organization for real time service ...

- Add Sensors to machines
- Output measurement
- Connectivity of machines
- Al algorithms to correlate process settings to output
- Predictive algorithms to optimize maintenance
- Digital problem solving and knowledge capitalization
- **...**

Key lessons for post-digital era



- Digital is not an option, it is essential for progression
 - > But is not enough to preserve the competitive advantage in the post-digital era
- There is a relevant value in new Processes
 - > connected and smart inside and outside;
 - collaborating effectively with the customers and suppliers helps maintain or even increase the competitive advantage
 - > The transformation has different steps and unpredictable evolution, so uncertainty must be managed with agile principles
- Human side is super important
 - > Create a learning culture, which is more than training.
 - > Engagement is needed (Adoption, Leadership and Anchoring)
 - You need only some kind of people (those who can manage uncertainty, those who leverage digital systems, those open to the external world and striving for knowledge)





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