



KNOWLEDGE IN ACTION

ASSET MANAGEMENT IN AN UNCERTAIN WORLD

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THIS IS THE THIRD IN A SERIES OF ARTICLES BY CAMBRICA DETAILING HOW ARTIFICIAL INTELLIGENCE CAN PLAY A PIVOTAL ROLE IN PLANT OPERATIONS.

When most of us think about Asset Management usually physical assets come to mind. We think of those in terms of capacity (500 msqf/hr), availability (16 hours x 5 d/w), and reliability (100% safe operation; Quality > 4 sigma; MTBF > 250 hr). We know that to maintain these attributes we need to apply basic principles, at the very least Tighten, Lubricate, and

Clean. Additionally, OEM-specified periodic maintenance needs to be considered, asset condition, reliability engineering and work execution management. But, as the events this year have taught us, the most critical asset is the human being. Without any of us most operations would, and many did, come to a standstill quickly.

Just as physical assets, our workforce also needs TLC to keep it

running smoothly. In economic challenging times, when companies try to produce more with less, it is paramount that our job performance is at its most efficient. If you consider reducing your workforce, the remaining staff will likely have less time to perform specific tasks, employees may face additional tasks, and you may lose some competence. Yet, we expect to maintain reliable output while keeping our sanity during the new normal.

Research, as performed for example by the Harvard Business Review, shows that knowledge workers on average spent more than 40% of their working hours on discretionary activities. These are activities that add little or no value. These activities could be performed by less skilled workers, or even could be completely automated. It seems reasonable that we can improve our efficiency by 20% - gaining one workday per week per employee.

Let us examine how to approach this challenge. Start with the following strategic steps:

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Improve Knowledge

Every knowledge worker should have immediate access to the knowledge base required to perform his or her job. Invest in technology that captures knowledge at its source as it is created. Once captured it can be categorized, indexed, and made searchable. This forms the Knowledge Base. It formalizes and socializes tribal knowledge. Each worker has access to that knowledge base thus increasing efficiency, job quality, and customer satisfaction.

Evaluate your hierarchical structure. If you find that it negatively impacts the business process causing delays, missed opportunities and additional waste, then you should identify Who knows What and if your employees have direct access to the Who and to the What. Evaluate the information flow and consider implementing a competence-based collaborative team structure with access to the latest technology. Each knowledge worker will have direct access to anybody within the team to request, share and pass on information required to perform the work without undue delay. The required technology is likely already part of your Office application subscription with the user interface being readily available hand-held communication devices.

Define Business Processes

Business processes are extremely important. They improve efficiency, they guarantee compliance, safety, and make our services predictable and repeatable. Invest in a detailed process analysis. It will quickly reveal which tasks are absolutely necessary, which ones

can be abandoned, which ones can be automated, which can be off-loaded or outsourced, and which ones will require redesign. Business process automation can eliminate many repetitive processes, which typically can be found in customer service, estimating, supply chain management and accounting. Many of these processes also will lead to self-help functionality for your customers. This convenience not only eliminates cost and error on your end but also drives customer loyalty.

Defect Elimination

Identify and eliminate repetitive failures in business processes interfering with the daily task. Typical sources are poorly configured software, malfunctioning hardware, cumbersome access to information, lack of technology, dependency on unreliable resources, task duplication, just to name a few. A detailed analysis, or to borrow a term from the maintenance world, a root cause analysis, will quickly reveal what needs to be changed to avoid failure. Avoiding failure leads to avoiding additional cost, it improves employee satisfaction and standardizes work processes.

Just as your productive assets on the shop floor, we humans perform our jobs in a delicate balance between capacity, availability, and reliability. And just as on the shop floor, we need to intelligently apply Knowledge of the Business Process. To do more with less requires a workforce that consistently uses up-to-date information to be nimble enough to anticipate and adapt to changes, one that is using technology and IoT solutions to assure consistency and quality based on

business rules, and one that operates in a collaborative environment which supports virtual attendance, to perform the job at hand. Generating a 20% efficiency gain should be your objective. Embrace the change!

Cambrica Corp. specializes in:

- Business Processes mapping and redesign
- Task Automation
- Enterprise search and semantic AI
- SME network setup
- Field service assistance
- Technical knowledge administration
- Asset Management business solutions



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