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Conceptual Frameworks Underpinning Project Delivery and Implications for Optimizing Project Outcomes

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ABSTRACT

Optimizing project outcomes requires that current conceptual thinking and frameworks associated with project delivery are understood. This research proposes that delivery of projects can be best understood through three primary historic eras: Era 1 - Productivity, Era 2 - Predictability and Era 3 - Profitability. These eras, which directly correlate to the development of modern operations management thinking, have had significant influence on how projects are delivered today, and form the basis of current trends in thinking about how to improve performance.

Once executives and project professionals begin to understand the three-era construct, they become eager to quickly determine where their organizations stand, including opportunities for how they can optimize the delivery of capital projects to avoid schedule delays and cost overruns.

SUMMARY

Current thinking suggests there are two primary approaches for the development of a maturity model to determine where the project execution capabilities of an organization are positioned within the framework of the three-era project management construct. The first, and more traditional consulting approach, uses a grading system to compare one organization to another based on the adoption of specific elements from each era. The second, and perhaps more robust approach, is based on determining how an organization understands and configures each of the parameters of a project production system, namely, product design, process design, use of capacity (type), control of work-in-process (WIP) and management of variability. Preliminary thinking is based on the development of a decision tree model assessing the capabilities of an organization along the aforementioned dimensions of performance for a project production system.

Once this research is complete, PPI envisions making available a practical means for organizations to assess the current and future state of their project delivery capabilities. The tool we envision is analogous to the product-process matrix – a graphical method to illustrate the interaction between the characteristics of products being produced by a production system and the processes used to produce those products. This was first described in “Link Manufacturing Process and Product Lifecycles” by R. H. Hayes and S.

C. Wheelwright in the January 1979 *Harvard Business Review*. A comparable tool for assessing current and desired states for project delivery capabilities will be a fundamental tool for organizations to use in the course of developing their adoption plan for Project Production Management.