



Does project management matter? The relationship between project management effort, complexity, and profitability

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Article highlight

This article reveals that, based on a large dataset provided by a single international, industrial Engineer to Order (ETO) project-based company, an increase in project management effort and commitment leads to increased profitability. It is important to note the words 'leads to' (i.e., a causal relationship) as this paper then makes the case for why those who support and advocate the involvement of specialist project management resources and abilities should push for such expertise to be involved.

The article makes two further useful contributions. The first is that there is a diminishing marginal benefit of increasing project management effort to profitability, which seems both logical and reasonable. What is useful to note about this finding is that project management expertise is most potent when used strategically – i.e., when making initial assessments, evaluations and decisions on the project. The second is that as projects are identified and recognised as being more 'complex' so the need for project management increases. Again, a reasonable finding, but, and very interestingly, the research reveals that if this project management is deployed appropriately on these complex projects, these projects tend to be more profitable than less complex projects.

What is the scope of the paper?

The paper draws on data from a single large industrial company that produces 'Engineered to Order' (ETO) products. Each product is manufactured as a project allowing for various levels of customisation. The average value of each product/project is circa €50m (€46.76m). Just under a thousand project files were analysed (917) that span a twelve-year period (2006-2017). Such a large and comprehensive dataset allows very good confidence that the data considered is both robust and reliable although, as the authors note, it is still only the insight derived from a single company and so it may not be true for other companies. This caution noted, the size and scale of the company studied, and the approach taken, would suggest that findings from this research would be reasonably applicable to other similar project organisation contexts.

Methodology

The research approach and methods used are drawn from the statistical analysis playbook. After a solid review of the relevant literature, the authors set out three hypotheses that look at the link between project management effort and profitability, how this relationship between project management effort and profitability changes when you increase the former, and what role increasing complexity of the project plays to both the levels of deployed project management and the resulting profitability.

To generate answers, the authors have taken considerable care to ensure that their results factor in various potential corrupting problems, such as the fact that in the company studied, all projects

had some degree of project management applied, making it impossible for the authors to ask the 'what if' question of a hypothetical case where a project was delivered by the company without any formally applied project management being used? In reality, the applied project management effort was not randomly assigned to projects, as would be the case in a randomised experiment. A particular strength of the paper is that rather than relying on correlational evidence, the authors seek to establish a causal effect using objective data over the whole project duration and various robust statistical techniques to ensure that the results are accurate.

Research findings

The results of the statistical analysis are compelling. The findings relate to the hypotheses posed and the first is that projects that deploy increased levels of project management effort are more profitable. The authors also confirm the second hypothesis that the relationship between project management effort and shows diminishing returns. For example, an increase in project management effort from 10% to 11% would increase the project's profit by 0.39 percentage points, whereas an increase in project management effort from 20% to 21% would result in an increase in profitability of 0.29 percentage point. The third question asked by the research team relates to the project's complexity. In this context, one can imagine that this might mean a more highly complex product/project would be one that has very high levels of customisation and that the product/project is in play during times where there may be economic or other forms of external uncertainty. What is significant is that the form of complexity

considered is registered before the project starts. These more complex projects were then provided with more project management effort from the outset – as would seem perfectly sensible. What is then very interesting is that these *a priori* complex projects tended to be even more profitable than those projects deemed to be less complex. Whilst the first two findings are potent and useful, this third finding is the most surprising.

Conclusions

This well-constructed paper contributes by extending our knowledge and providing greater insight. The paper extends our knowledge by statistically proving that there is a direct and causal relationship between project management effort and project profitability, i.e., increasing project management effort will, all other things equal, increase project profitability. The paper also shows that additional increases to such project management efforts will have a reducing positive impact on profitability. The paper then provides an intriguing insight that may surprise some. That is that if you recognise that you have a more complex project than your norm, and if you invest more (and presumably better) project management effort into this more complex project, that the complex project is likely to be more profitable than standard projects.

Implications for practicing project managers

For the practicing project manager, the key takeaway is to appreciate that developing and allocating project management expertise and effort should be seen as a sound investment if you want the project to have an increased likelihood of improved profitability. This project management effort needs to be deployed both strategically and judiciously, but where it is – the project's profitability is set to increase. In projects where it is recognised that the project concerned is more complex than the norm, the use of increased levels of suitable project management effort will likely increase the complex project's level of profitability when compared with its peer group of similar, but less complex, projects.

Implications for project scholars

For the scholars of project management, this paper paves the way for further research investigation and consideration that can be stated as a series of resultant questions: What would be found if other project-based companies were studied in a similar way? What is the impact of increased project management effort on other key project performance parameters and metrics? And the revelation that projects recognised for being more complex can, if the project is managed well, be more profitable opens many new and relevant research questions.

Significance of the research

This article is both revealing and tantalising. It reveals that organisations that understand their project portfolios have the opportunity to increase project success by ensuring that sufficient and appropriate project management expertise is allocated. For project-based organisations it is therefore important to ensure a suitable project management pool of expertise is developed and secured. As the authors' state:

“Overall, this study's results stress the value of project management and justify investments in project management, the professionalization of project management training, and the competence building of project management professionals”. (p.631)

The research is tantalising as it is a very significant quantitative dive into one company's experience. If other research takes a similar approach to other project organisational contexts, then we will gain both a wider and deeper understanding of just how important project management skills and expertise is to organisational success.

Comments from the author

We recommend this article to practitioners for its insights into the tangible impact of project management effort on profitability, especially in the face of complex projects. Our research takes a deep dive into data from 917 projects, allowing us to reveal a clear causal link between project management effort and financial success. Although project scholars and professionals are convinced of project management's value, previous research did not provide causal evidence with objective data.

For those in the field, the message is clear: investing in project management, particularly for complex initiatives, is not just good practice—it is economically beneficial. The study highlights that even a small increase in project management effort can have a notable effect on your project's bottom line. This is especially true as projects become more complex, underscoring the value of skilled project management in navigating these challenges.

We share these findings with the practitioner community because they underscore the critical role of project management in achieving project success. The evidence we have gathered offers a compelling reason to prioritise and invest in project management capabilities. It is a validation of the profession's impact and a guide for strategic decision-making in project management investment.

Complete article

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