

Are existing project management maturity models valid?

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In this final article, Søren evaluates the ability of the model developed in the earlier articles to predict organizational performance vis-à-vis the main organizational project management maturity models. It also addresses the top-down versus bottom-up view of ways of developing maturity, and the argument about whether 'continuous improvement' is the end state or the way to maturity.

To corroborate the research, a survey was carried out in the autumn of 2007. Some 180 organizations answered 75 questions that were equally distributed over the main concepts covering organizational project management success factors. These were:

- 1 Leadership
- 2 Vision and core ideology
- 3 Culture
- 4 HR systems & practices
- 5 Strategy
- 6 Structure
- 7 Portfolio management
- 8 Continuous improvement
- 9 Comprehensive and reliable metrics
- 10 Clear and attainable goals
- 11 Benefits processes
- 12 Stakeholder commitment
- 13 Project management

In addition, they were asked questions related to the output of the organization – the organizational performance. The questions were about:

- R1 – Key performance results – financial perspective
- R2 – Impact on society – customer perspective
- R3 – Customer satisfaction – customer perspective
- R4 – Employee commitment – learning and growth perspective
- R5 – Employee satisfaction – learning and growth perspective
- R6 – Right projects done – process perspective
- R7 – Projects done right – process perspective

Based on these questions we first performed an explorative factor analysis in an attempt to reduce the number of questions from the survey

to a smaller number of success factors that could explain most of the variance-observed organizations' performance.

Secondly we analysed if we could identify any relationship between the identified factors and the organizational performance. The purpose of this part of the study was to verify if any statistical support for the link between maturity and organizational performance could be found.

Thirdly we looked to see if the expected links identified in the earlier articles between the success factors and organizational performance could be confirmed.

The first step of the analysis showed that the success factors could be split into six latent success factors as shown in Figure 1.

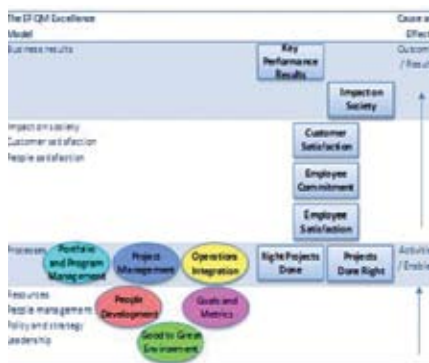


Figure 1: Variables and factors under investigation

A high-level interpretation of each of the domains in terms of our reference model from last month is outlined in Figure 2.



Figure 2: Latent success factors fit to the reference model

We then asked ourselves:

'What are the factors that lead to organizational success/performance if the goals of the organization are achieved through a web of projects?'

The variables under investigation in the analysis were the six latent factors found above and the seven organizational performance questions from our survey. To guide our analysis we used Figure 1 as it was clearly aligned to our existing knowledge about performance models (article 2).

We then tested whether any of the latent success factors significantly predicted:

- Projects done right
- Right projects done
- Employee satisfaction
- Employee commitment
- Customer satisfaction
- Impact on society
- Key performance results

From that analysis it appeared that the factors leading to organizational success, when the goals are achieved through a web of projects, are the six factors shown above. More specifically that:

1. The key to organizational success is a good-to-great environment.
2. Goals & metrics and people development also play a significant role in the achievement of success at nearly all levels.
3. Operations integration plays a significant, yet minor, role in the achievement of organizational success (only impacting projects done right).
4. Portfolio & programme management significantly contributes to delivering the right programmes, projects, and initiatives in the right sequence (R6). The strength of the relationship is as high as 27.2 per cent.
5. Project management (PM) significantly contributes when organizations want to be better, faster, and/or cheaper in planning, executing, and delivering products, services, and benefits (R7). Though significant, only 15.1 per cent of the variation in projects done right can be explained by PM!
6. Portfolio & programme management has an overall greater impact on the organizational success than project management. This seems to support the argument that low maturity in portfolio management might prevent project managers from doing a good job and consequently the risk of demotivation might increase.

'Although major organizations such as PMI and OGC argue that maturity in PM is the key to organizational success when the goals are achieved through a web of projects, this series of articles provides no support for this!'

The last of the major disagreements identified in the earlier articles was whether organizations have to implement success

factors following a pre-specified path to be able to achieve success, which could not easily be answered from the regression analyses. Hence, Confirmative Path Analysis was performed as the last step.

Confirming the path towards organizational performance

According to the Organizational Development paradigm, leadership that is part of the good-to-great environment, together with people development, are the starting points of organizational performance. The main impact should be on employee satisfaction & commitment, which again should affect the portfolio, programme, and project management processes.

From Figure 1 it seems likely that employee commitment affects customer satisfaction, which again seems likely to affect overall key performance results.

Dinsmore & Cooke-Davies, among others, claim that clear and attainable goals & metrics influence people's ability to contribute. In the path model below this is validated through the path from goals & metrics to employee commitment.

From Figure 1 (article 1) we know that businesses are able to survive if they are effective (doing the right things) and will face decline if they are ineffective. This is supported by our analysis above, as only *doing the right projects* and not *doing them right* seems to influence key performance results. For that reason, we expected that projects done right would not influence key performance results unless they were mediated by a proper project selection and prioritisation process – ie, right projects done.

Based on these findings the confirmative path model shown in Figure 3 was drawn¹.

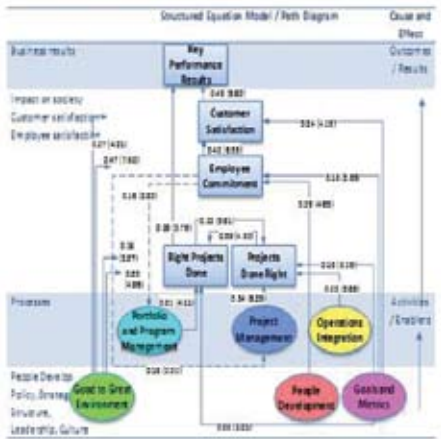


Figure 3: Path diagram without right projects done as mediator

Figure 3 shows the path analysis with good-to-great environment, people development, and goals & metrics as driving factors without right

projects done in a mediating role between key performance results and projects done right. (Path coefficients and t-values in brackets are provided for each path with |t-statistic| > 2 as significant).

The two mediating results variables, Impact on society (R2) and Employee satisfaction (R5), were taken out as the stepwise regression analyses showed R2 to have no impact on key performance results and only 9.8 per cent of R5 could be explained by the latent factors.

As the path from projects done right to key performance results turned out to be insignificant, the path was moderated, placing right projects done in the mediating role between projects done right and key performance results (see Figure 4).

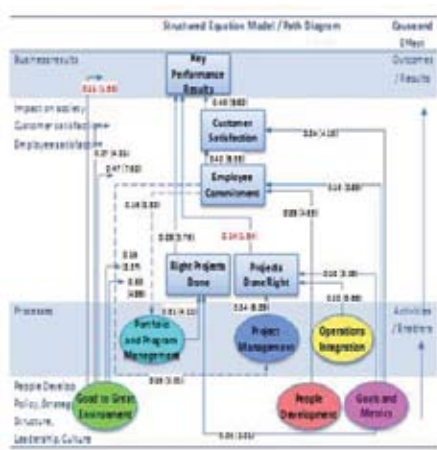


Figure 4: Path diagram with right projects done as mediator

Our concluding interpretations of the findings from this confirmatory path analysis are that:

- Good-to-great environment and goals & metrics can be seen as drivers of organizational success in project-based environments.
- People development influences PPM through the mediator employee commitment.
- Portfolio & programme management is needed for project management to have any effect on organizational success, as the right projects done mediates projects done right.

These findings support authors arguing that a specified path must be followed in order to be successful. However, the path is not, as PMI argue with their organizational project management maturity model (OPM3), a bottom-up path. Rather,

¹ The Mediating results variables, Employee satisfaction and Impact on Society are disregarded in this analysis as it was found in the first regression analysis that the latent factors could only account for less than 30 per cent of total variation in these two variables.

it is top-down – from good-to-great environment, which includes leadership and vision, to drive the right goal-driven culture and the successive implementation of proper portfolio & programme management processes before focusing on project management and operations integration.

Our analysis also revealed that, although the path is top-down, portfolio & project management maturity must increase incrementally as shown in Figure 5.

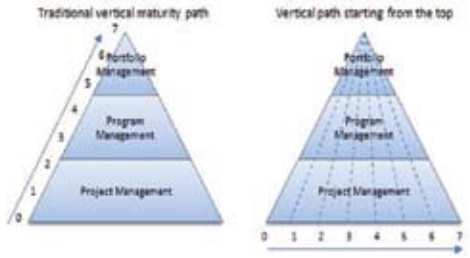


Figure 5: Traditional versus confirmed maturity path

This vertical top-driven path principle, together with the performance factors, outlined below, is based on the combined findings from the earlier articles, the six latent success factors identified above together with the path model above, and the interpretation of each of the latent factors (LF1-LF6) as shown in Figure 6.

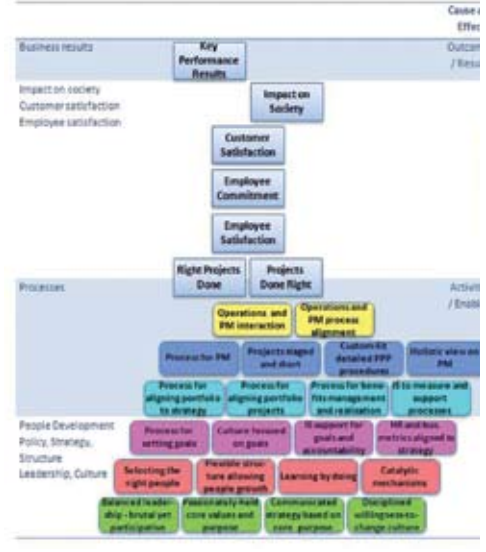


Figure 6: The path to superior performance in project-based organizations

The interpretation of each of the levels of the factors that lead to organizational success, if the goals of the organization are achieved through a web of projects, are, in the following order:

LF1 Good-to-Great Environment which focuses on vision, core ideology, leadership, and culture. The learning from this seems to be that to achieve great performance:

- The management and leadership of the organization must exemplify the purpose of the organization and clearly demonstrate their support and dedication to the strategy and long-term goals
- They must practise high-involvement, yet they must never enter into a compromise when it comes to the core values of the organization
- They must be consistent in their leadership and support decisions made in the portfolio process and provide committed, adequate resources and clear direction and sponsorship when needed
- The whole organization must adhere to, and constantly reinforce, its passionately-held core values and purpose and use these as a guide to develop the business processes
- It must have a clear understanding of what values it brings to the world now and in the future
- The strategy must be well communicated and in line with this understanding

In total, these capabilities are very similar to Collins' Good to Great concept. There seems to be no discrepancy between our confirmatory model and the arguments presented by authors focusing on the resource-based view of the organization.

LF5 People Development where the most important success factors found were:

- A flexible structure allowing personal growth followed by
- A team culture focused on learning by doing and people development
- Catalytic mechanisms enabling people to contribute instead of strict control and bureaucracy
- Selecting the right people

Again, these findings fully support the findings of Collins and organizational learning theorists like Pedler and Boydell.

LF4 Goals & Metrics where the most important factors to achieve organizational success were found to be that:

- A process for setting goals is put in place,
- The culture of discipline is goal-oriented,
- The systems in place provide information on goals, including who is accountable for meeting them (X-48) and
- The measurements of the business are consistent with the way people are measured and are clearly connected to the strategy (X-42)

LF2 Portfolio & Programme Management That this was found to be the key to harvesting the fruits of proper PM was not a surprise.

The most important factors here are alignment of strategy and portfolio and projects within the portfolio; furthermore, there needs to be processes

for benefit management & realisation together with information systems to measure and support the alignment processes.

LF3 Project Management Although major organizations such as PMI and OGC argue that maturity in PM is the key to organizational success when the goals are achieved through a web of projects, this series of articles provides no support for this. Only outdated models made by Ibbotson and Kwak seem to support this view. On the contrary, both the literature and the consecutive statistical path model show that, although PM is important, it is only so indirectly through portfolio management. The most important PM success factors found in this research were:

- The maturity of the PM process
- Short & staged projects to minimize risk
- That the PM processes are custom-fit and detailed and
- A holistic view encompassing PM processes as well as support processes

These four key factors are exactly the factors argued by Dinsmore & Cooke-Davies (2006).

LF6 Operations Integration proved to be of minor importance to the overall organizational success, with the two most important factors that:

- The operations segment plays an integral role in the selection, oversight and implementation of projects and
- The transition of project output and outcome to operations is executed in a predictable, repeatable and orderly process

The model outlined above underpins the importance of broadening the view of organizational project management models to encompass all aspects of organizational maturity if they are to add significantly to the performance of organizations (see Figure 7).

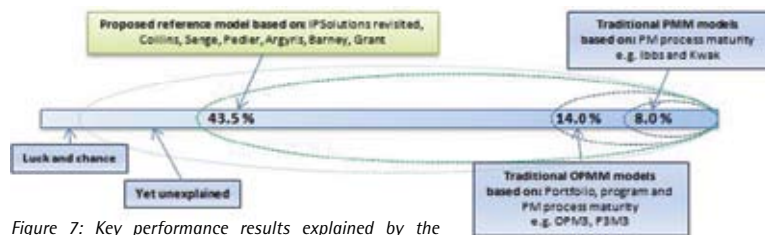


Figure 7: Key performance results explained by the different project management maturity views

In summary, the findings seem to stand in stark contrast to PMI's OPM3, as OPM3 ends in a state of continuous improvement whereas continuous improvement, according to our research here, seems to be the foundation of success.

In all of the six identified latent success factors, an element of alignment and maturity can be found. This underpins the alignment view of Tom Peters & Robert Waterman (1983), among others, as well as the capability view of authors like Barney and Grant.

Although the conclusion above supports the organizational development and the alignment paradigm, it does not disqualify the process maturity paradigm. On the contrary, the reference model and the research both support the mechanistic process paradigm. Both include project management maturity as a factor to achieve organizational performance.

So, which one of the three main paradigms identified is, then, the right one?

They all are! Only the organizational development paradigm is the foundation, together with the alignment paradigm. The soft factors seem to be more important than the hard ones; that is why the process paradigm, although important, must be tertiary.

This also means that the assumption made in article 2 in relation to Dinsmore & Cooke-Davies' framework was correct. They would be able to enhance their model by dividing the success factors into layers of first, second and third order as we saw in article 2.

The ultimate answer to the question of whether increasing organizational project management maturity contributes to the performance of the organization is 'Yes'. The only condition is that the true success factors and the path have been identified.

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