

## Reconsidering Models Of Organizational Transformation Maturity

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### INTRODUCTION

Organizational culture encompasses a set of characteristics, including norms, routines, and unspoken rules that dictate how activities are conducted within an organization. The maturity of an organization's culture can be assessed using various maturity models (MMs), and aligning the organizational culture with an appropriate MM has the potential to accelerate project and business performance. A MM is a descriptive model outlining the stages through which organizations progress as they define, implement, evolve, and enhance their processes. Typically, these stages include the initial level, repeatable level, defined level, managed level, and optimizing level (Becker et al., 2009), illustrating the organization's capacity for continuous improvement.

Maturity models play a crucial role in helping companies understand their current maturity level and guide them in improving specific disciplines. By posing questions and developing action plans, MMs serve as a tool for organizations to assess and enhance their capabilities.

During an organizational transformation, there comes a moment when analysis is conducted, and improvement targets need to be established. A key component of this analysis often involves gathering insights from a broad spectrum of employees—a process known as tapping into the 'wisdom of the crowd.' This approach, documented by Giles (2005) and Surowiecki (2005), has proven to be a valuable contribution to the decision-making process.

Currently, there are numerous maturity models (MMs) available in the market, with Grant and Pennypacker (2006) estimating more than 30 such models. The majority of these models were developed in the early 2000s (Mullaly, 2006). It is widely believed that organizations with higher maturity levels are more likely to achieve success in terms of project effectiveness and efficiency (Cooke-Davies and Arzymanow, 2003). MMs find application in various business areas, ranging from petrochemical and defense industries to construction and engineering companies (Backlund et al., 2014).

Despite the expectation that organizations with more mature project management practices would exhibit better project performance, the literature presents somewhat paradoxical findings. There is no clear evidence supporting the contribution of MMs to organizational success as a competitive advantage (Yazici, 2009). Mullaly (2006) expressed concerns about the lack of evidence regarding the contribution of MMs to organizational success. A survey conducted by Grant and Pennypacker (2006) across 126 organizations from diverse industries indicated that the median MM level is 2 out of 5 for 36 out of the 42 components studied.

Understanding the role of MMs is crucial. One common mistake is using these models to generate improvement plans without effectively executing them. While a maturity model can identify weaknesses, it does not inherently address or repair them. Another pitfall is attempting to design and conduct assessments without securing the necessary level of executive commitment (Rosenstock et al., 2000). Jugdev and Thomas (2002) have highlighted some major criticisms of MMs in the literature as:

- Models have the comprehensive and complex frameworks;
- Maturity levels don't provide sufficiency of information to compute progress over time
- The models have some limitations and drawbacks as they lack a theoretical basis.
- The models mainly focus on the work processes, some ignoring organizational aspects.

The focus of this paper is to shed some light on the use of a maturity model to help guide the continued implementation practices. Therefore, its aim is to answer the following research questions:

- 1) How are maturity models structured?
- 2) To what extent do teams manage to achieve maturity levels?
- 3) To what extent do managers take into consideration the levels achieved by the teams?

### METHOD

#### Procedure and Participants

When an organization sets an improvement target, it aims to objectively measure its progress on the trajectory of strategic plans and organizational goals. However, using a Likert scale inquiring about the organization's trajectory can introduce biases that may influence overall scores. This study adopts an alternative technique, specifically designed to

objectively assess the trajectory by polling employees, as outlined in studies by Van de Poll (2018, 2021) and Van de Poll et al. (2022). The analysis encompasses 117 employee polls addressing various strategic issues (e.g., culture, innovation, adoption of new processes), all related to organizational transformation. These polls garnered responses from 30,395 participants in 782 teams, resulting in a total of 1,375,775 answers. The calculations for managing levels of organizational maturity were performed using PRAIORITIZE, an automated consultancy platform available at [www.praioritize.com](http://www.praioritize.com).

**Measures & Data Analysis**

An alternative survey format based on the Guttman scale was constructed. This alternative scale is an ordinal and multiple-choice scale: every following answer is better than the answer before. Uhlaner (2002) calls these ‘breaking points.’ For example (from a team effectiveness poll):

Q. How do you celebrate successes?

1. *We don't*
2. *When there is an apparent reason todo so, with whoever is involved*
3. *We make it a habit to celebratesuccesses with the entire team*

The respondents’ self-reporting bias was further reduced in the survey by adding "proof-words" like, e.g., 'periodically,' 'measurable,' 'described,' 'formally,' and 'documented' (Donaldson and Grans-Vallone, 2002). Those words often diminish the emotional or cognitive meaning given by employees to the answers (Frese & Zapf, 1988). And, additionally, adjectives and or adverbs that couldn't be checked (e.g., "good") were avoided. This survey format was considered as sufficiently verifiable (Ahrens & Chapman, 2006; Plewis & Mason, 2007) for application in maturity models.

Maturity levels were constructed by assigning individual answers to levels. It was postulated that the worst answer of the three was by default achieved: only answer 2 and answer 3 had to be assigned to a level. Figure 1 shows such an assignment.

	Level 1	Level 2	Level 3	Level 4	Level 5
Question 1	2	3	3	3	3
Question 2				2	3
Question 3		2	2	3	3
Question 4			2	2	3
Question 5				2	3

**Figure1.** Assigning answers to levels

The answers were structured in a way that each subsequent level required the same answers as the previous level, with the addition of at least one extra answer. Achievement of all assigned answers was necessary to reach a particular level. In Figure 1, for example, a respondent must have scored the best answer (out of three) on Question 1 and the middle answer (out of three) on Question 3 to attain Level 2, regardless of their responses to other questions. Missing a single required answer would result in the non-achievement of that level. The maturity scores were calculated for each respondent, and a team's maturity score is expressed as "X% of the respondents achieving Level 1, Y% achieving Level 2," and so on.

Among the 782 teams, maturity models varied, with some having the standard five maturity levels, while others had four, three, or two levels. For teams with a two-level maturity model, the achievement of Level 1 and Level 2 was averaged. Similarly, for teams with three-level maturity models, the average achievement for levels one to three was calculated. This process was repeated for four-level and five-level maturity models. Ultimately, the target level chosen by management was tallied for each team.

**RESULTS**

**Table 1** displays the composition of the database: 117 organizational transformation projects covering 782 teams with 30,395 respondents supplying 1,375,775 answers, where it is also given how many teams scored which kind of maturity models.

Table 1  
*Achieved levels versus target levels chosen*

	N	Share	Min.	Max.	Avg.	St.Dev.	L1	L2	L3	L4	L5
<i>Database</i>											
#. questionnaires	117										
#. teams	782										
#. questions per questionnaire			7	151	40	16					
#. respondents	30,395										
#. respondents per teams			4	992	40	92					
Answers given	1,375,775										
<i>Two levels</i>											
Achieved by respondents	8	1%			1,2		86%	14%			
Set as target by managers					2,0		0%	100%			
<i>Three levels</i>											
Achieved by respondents	89	11%			1,1		96%	2%	2%		
Set as target by managers					1,7		46%	38%	16%		
<i>Four levels</i>											
Achieved by respondents	93	12%			1,3		76%	21%	3%	1%	
Set as target by managers					1,8		40%	37%	24%	0%	
<i>Five levels</i>											
Achieved by respondents	592	76%			1,4		81%	11%	2%	1%	6%
Set as target by managers					2,7		7%	20%	67%	3%	2%
<i>All levels combined</i>											
Achieved by respondents	782	100%			1,3		82%	11%	2%	1%	4%
Set as target by managers					2,5		16%	24%	55%	3%	2%

L1, L2, etc.: The percentages achieved or chosen for maturity level 1, level 2, etc.

It's important to highlight that the most prevalent maturity model was the five-level model, utilized by 592 teams, constituting 76% of all teams in the database. Table 1 breaks down, for each type of maturity model, the levels achieved by respondents and the levels set as improvement targets by management for the next 6 months. A significant disparity is evident between management targets and respondents' achievements. For instance, in the "Five levels" section, 81% of respondents reached no more than Level 1, while management set a target of Level 3 or higher for 72% of the teams. When considering the weighted averages for the entire "Five levels" section, the achieved average level is 1.4, whereas management aspired to improve to a weighted average of 2.7 within the next 6 months. This discrepancy raises concerns, especially considering that teams may have taken considerable time, perhaps even years, to achieve the average 1.4 score. An average improvement target of 2.7 within the next six months may seem impractical. Notably, the number of teams targeting Level 3 outweighs all other team targets combined, with 67% of teams in the "Five levels" section aiming for Level 3. While Level 3 may appear visually attractive and seemingly reasonable to management, it becomes evident that over 80% of respondents do not surpass Level 1.

**DISCUSSION**

The disconnect between management perception and the reality on the work floor can have severe implications for organizational transformation. The maturity models in our database were consistently provided externally, either by consultants or by the management itself, and were not part of an official norm or standard. The assumption was that the structure of these maturity models theoretically made perfect sense, and choosing the middle of the five levels was considered realistic by management. However, the evident gap between the target and the work floor prompts a reevaluation of the structure of maturity models.

Recent research suggests that if respondents' answer profiles are clustered, for example, through k-means clustering, the resulting clusters can form a maturity model (Van de Poll et al., 2022). These "organic" maturity models reflect the organizational DNA and provide an inside-out perspective compared to the outside-in maturity models in our database. Exploring these organic maturity models in new research could likely lead to much more realistic—and therefore more usable—target setting. This shift in perspective may offer valuable insights for a more effective and aligned approach to organizational transformation.

**Limitations and Future Research**

The research presented in this paper comes with several cautionary remarks. The organizational transformations in our database covered diverse topics, and the teams ranged from 4 respondents to over 900 respondents, often representing divisions rather than actual teams. Despite this diversity, the paper draws conclusions based on a database of over 30,000 respondents, making the findings indicative.

It's important to note that the study solely focuses on the achievement of maturity levels without delving into the contents of these levels. The gap between actual achievements and chosen targets widens even further when considering the percentage of respondents who did not reach Level 1. Unfortunately, access to these specific percentages was not available, potentially amplifying the gap between achieved and targeted levels.

Certain aspects of the research have been left for future exploration due to time constraints. This includes a deeper analysis of (1) the motives behind target setting by teams' management and (2) the deciding factors, or any other factors, influencing managers when establishing targets. These areas remain open for future research endeavors.

## CONCLUSIONS

Establishing a specific, measurable, achievable, relevant, and time-bound improvement target is crucial for any organizational transformation. This study, conducted through a survey-based research approach, aimed to gain deeper insights into the maturity of business issues requiring organizational transformation. The survey encompassed 117 organizational transformations involving over 30,000 employees, and the findings indicate a substantial gap between management perception and the reality on the work floor.

The study highlights that despite over 80% of teams scoring at Level 1, 70% of their managers set improvement targets at Level 3 or higher for the next six months. This dissonance between the current state and management targets serves as a red flag for any manager leading such a transformation. The conclusion drawn emphasizes the need for management targets to incorporate additional tools that facilitate the creation of smarter maturity models and enhance strategic decision-making in the context of organizational transformation.

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