

# PM World Journal

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LETTER TO THE EDITOR

## **On the Subject of Walt Lipke's article in the October PMWJ on The To Complete Performance Index**

9 October 2015

Dear Editor,

I would like to comment on Walt Lipke's article: "The To Complete Performance Index ...an expanded view".

Although I have no issue with the algebraic calculations, I do have reservations about the conclusion that setting a "universal" value of 1.10 for the TCPI threshold is a valid approach. My reasoning is that there is a better way of deciding whether a given value of TCPI is achievable, and this does not require calculus:

- First, evaluate how much you expect to be able to improve on your current efficiency (for time or for cost). Call this "potential percentage improvement" (PPI).
- Then calculate the required improvement from TCPI and CPI (or SPI in case of time): the "to complete performance *improvement* index" (TCPII) is  $TCPI/CPI$  (in the case of cost – or  $TCPI/SPI$  for time).
- Finally, compare TCPII with PPI to see if you are asking too much (i.e.  $TCPII > PPI$ ).

In the case given in the article, CPI is given as .85. When TCPI reaches the stated threshold value of 1.1, TCPII would be  $1.1/.85 = 130\%$ . The goal is only unachievable if you will be unable to become 30% more effective in controlling costs. You may not yet have reached the point of no return or you may already have passed it.

In addition, the actual estimate for an achievable EAC (AEAC) can be calculated by assuming that the CPI from the current point is enhanced by applying the PPI ( $ECPI = PPI * CPI$ ). With a bit of algebra, this gives  $AEAC = \{EV * (PPI-1) + EAC\} / ECPI$ . The variance that this predicts can be used as a valid input to well-informed management decisions.

It is nice to find that Earned Value can still give rise to interesting insights.

Best regards

Crispin ("Kik") Piney, PfMP, PgMP  
France

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October 9, 2015

Walt Lipke Responds:

Kik & David ...I have recently performed a study of 25 real projects which confirms my theoretical assertion (that when TCPI exceeds 1.10 recovering the project is unlikely) from the re-published article on TCPI. The new article is to be first published in CPM's *The Measurable News*, scheduled for the Winter 2016 issue. Subsequent to MN publication I will submit it to *PM World Journal* for 2<sup>nd</sup> Editions publication. In the study a new finding emerged which I believe you will find very intriguing and compelling.

One more thing I would like to pass on to Kik is in his computation method he must take note that the EVM schedule indicators (SPI & SV) fail for late performing projects and thus using SPI in computations cause results to be unreliable. I recommend the Earned Schedule approach to using EVM data. ES indicators have been proven over and over through both application and academic research to provide reliable management information.

Best wishes ....walt

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October 11, 2015

Kik Piney responds:

Walt,

To be clear: I do agree with your statement that "TCPI has application in evaluating the realism of [...] EAC". I also think that the criticism of SPI and SV in the Earned Value method (EVM) has some ... value, but do not believe that it is relevant to my reservations on the setting of a unique threshold for TCPI. The point I was raising was that, unless you know what flexibility you have for improving your CPI, for example by extending the schedule and thereby reducing overtime costs, imposing a predetermined TCPI threshold can be seriously misleading.

In addition, the criticism of SPI in favour of "earned schedule" mainly serves to underline the importance of understanding the domain of applicability of standard EVM. As you say, the schedule performance index (SPI) means nothing once the objective has been missed. But then, SPI was only designed to measure progress *towards* the objective – making that criticism inapplicable to the situation covered by the article. My argument

against a predetermined value of TSPI is therefore also valid in the case where “actual time” (AT) is less than “planned duration” (PD).

Best regards

Kik