

Instructions and request for help re TCO Estimator

I am seeking your help in developing a TCO (Total Cost of Ownership) Calculator. My goal is to develop a tool that would be used by "all" manufacturing associations and as many companies as possible and promoted to OEMs for their use. By having a well documented, specific, flexible calculator, I would hope for more acceptance by the OEMs. Ideally, Purchasing Agents would be faced with the Calculator so often that they would give it a try. I have reviewed previous and existing worksheets and articles by many of you and tried to incorporate the best ideas into the attached file.

Explanation of the TCO Calculator:

- 1 Current TCO comparison
 - a 18 cost factors (some expressed as a % of the shipment value, e.g. duty, others as an absolute \$ value, e.g. shipping fees), all user modifiable, sorted into 3 categories, as to whether they occur:
 - 1) on each order
 - 2) annually
 - 3) 1X in the life of the part or tool
 - b Able to handle parts and tools
 - c In this draft, comparing China to U.S.
 - d Most of the factors are costed using sourceable data. Example freight or duty. Some of the costs are developed in the Explanations column
 - e In a few cases guesses are inserted and noted as such.
 - f Where I have not been able to quantify the cost, in some cases I inserted relevant qualitative benefit arguments from credible sources. Example: IP risk and Impact on innovation. Several professors are seeking quantification of the impact on innovation for us.
 - g Some assumptions are on the Assumptions tab page
 - h Except for FOB price, all costs in the calculator are the excess of Chinese cost vs. U.S. cost.
2. Forecast TCO comparison
 - a. The TCO is extended for 5 years using forecast relative wage increase rates of the U.S. and China and an estimate of the annual appreciation rate of the Chinese Yuan vs. the \$.
3. Line Charts
 - a. Display the current and forecast TCO comparison.

Future refinement planned:

- 1 Add missing cost factors
- 2 Apply to more countries
- 3 Professionalize
- 4 Distribute to vendors and customers. Provide training for both. Realistically, the vendors will accept the training and then will "train" the customers by talking/calculating TCO with them.
- 5 Make available online

- 6 Promote
- 7 Make the Calculator an important tool of a broad, ongoing effort to promote more manufacturing in the U.S.

My requests of you:

- 1 Suggest changes and additions.
- 2 Help me quantify factors that are guesses.
- 3 Indicate whether you would utilize the final product for your company or association to support the effort to bring a unified standard TCO calculation to the OEMs.

I look forward to your timely input and response. I take constructive feedback well, so be completely direct.

Thanks,

NOTE: **My email address has changed.** Please update your records accordingly.

Harry C. Moser
Chairman Emeritus

Agie Charmilles LLC
560 Bond Street, Lincolnshire, IL, 60069, USA
Phone +01 847 726 2975, Mobile +01 847 867 1144, Fax +01 847 913 5342
harry.moser@comcast.net www.gfac.com/us

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