



Title: A Critical Review of "The Failure of SDT Diffusion: A Case for Mass Customization"

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Abstract: A paper titled "The Failure of SDT Diffusion: A Case for Mass Customization" is critically reviewed in this individual report.

**A Critical Review of
“The Failure of SDT Diffusion:
A Case for Mass Customization”**

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EMP-P98055

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and design their production process in such a way that the same process with only minor modifications could provide their clients with SDTs that have already undergone the first level of required technological adaptation. This would require an initial investment on the part of the technology provider but would pay off with low marginal costs of production and a much more successful market.

The paper concludes with a long list of possible areas of further research diving into the depths below this fairly shallow paper that really presents an idea but has very little substantial data to back it up.

What methodology has been used?

The authors use both a literature research and a interview driven field study. While the presentation of the literature research is not very broad, it looks as if the authors did a decent job of finding meaningful and practical information to provide background to their discussion. The literature presentation merely frames the picture. The picture itself is drawn by the field study and the analysis of its results. The field study was conducted using semistructured interviews with multiple managers at 13 different firms with experience deploying SDTs, all located in the southeastern and midwestern US. Due to the small sample size, non-formal rather than statistical analysis methods were used. This means that the authors simply reviewed the data and picked out commonalities and interesting points.

What are the contributions of the paper to the literature?

I really wasn't able to find much that directly parallels this investigation. There was literature covering each of the individual pieces of this paper, much of it listed in the paper's references,

but each was dealt with individually as a separate issue. Bearing this in mind, I feel that the primary contribution of this paper to the literature is a reframing of several different issues in a new light. By bringing the topics of mutual adaptation requirements of innovation diffusion together with the potential of mass customization and framing the combination in a concrete example this paper provides the reader with a much more palatable and encouraging introduction to these two fields.

What are the strengths and weaknesses of the paper in terms of concepts, methodology and results?

Objectively, this paper seems fairly strong in terms of the concepts it presents yet fairly weak in the depth of its methodology and in its results. Yet when you take into consideration that the purpose of the paper wasn't to delve deep into some technical topic but rather to provide a surface justification for further research into an interesting new application and justification for a new technology, it seems that the paper has done an adequate job. The concepts discussed are definitely meaningful. They are timely and practical and they are brought together in this paper in a way that the other literature has not done. No other paper has brought together the concepts of mutual adaptation requirements for innovation diffusion with the concept of mass customization as a solution and presented it in the concrete framework of an actual example. While each of these pieces is not new, by bringing them together the paper does a good job of making it easier to understand. The weakest element that I see is the methodology. Not in which research methods were chosen, a literature search and a field study seem like optimal methods, but rather in the lack of depth provided especially in the field study. Again, I understand that the paper is only meant to be a surface presentation but it would be nice to see a broader

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and statistically significant sample to see if the generalities seen here still hold as true.

What are the conclusions of the paper? Are they well stated? How are they supported by the research reported in the paper? Do they need strengthening? If so, how?

The paper concludes that by mating the concept of mass customization to more traditional innovation diffusion models, these models can be extended to deal with more complex technologies. It further concludes that using an adaptation framework based on nature, level, and amounts of post-adoption adaptation required to drive a mass customization effort can successfully move some of the technological adaptation out of the organization and into the provider. They are fairly well stated but a little confusing. When fully analyzed they are well supported by the research in the paper and would be further validated by the undertaking of some of the suggested future research. I don not feel they need strengthening. The paper aims to be a surface presentation of the idea and the conclusions well match this goal.

Are the references adequate, or have you identified other researchers in the same area that should be included? If so, give full citations and briefly explain their work.

I feel the references are more than adequate for the research presented in the paper.

After studying the paper and related literature, what research ideas have you identified for future work?

Actually the paper gives a fairly comprehensive list of future research possibilities. Personally the areas I would choose to look into are: 1) researching any real world applications of mass customization and analyzing their impact on the levels of mutual adaptation requirements in their products, 2) further investigation along the same lines only performing a much more in-depth field study including a larger sample, more types of SDTs, and possibly other non-SDT technologies, and 3) researching the effects on mutual adaptation requirements of mating reusable modular products with the reusable modular manufacturing process of mass customization.