

6-7-2014

BUSINESS MODEL DESIGN FOR ENTREPRENEURIAL FIRMS AS SUSTAINABLE ENERGY PROVIDERS (INTERACTIVE PAPER)

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Recommended Citation

Gustafsson, Veronika and Holzmann, Patrick (2014) "BUSINESS MODEL DESIGN FOR ENTREPRENEURIAL FIRMS AS SUSTAINABLE ENERGY PROVIDERS (INTERACTIVE PAPER)," *Frontiers of Entrepreneurship Research*: Vol. 34 : Iss. 19 , Article 11.

Available at: <https://digitalknowledge.babson.edu/fer/vol34/iss19/11>

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≈ INTERACTIVE PAPER ≈

**BUSINESS MODEL DESIGN FOR ENTREPRENEURIAL FIRMS
AS SUSTAINABLE ENERGY PROVIDERS**

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Principal Topic

Business model design strongly affects performance of entrepreneurial firms, as has been demonstrated by Zott and Amit (2007; 2008), who investigated the relationship between novelty-centered vs. efficiency-centered business models and performance.

The present paper aims to study the effect produced by technology as a potentially important part of entrepreneurial firms' business models. We propose that following technology maturation novelty-centered business models become replaced by efficiency-centered business models. We further assume that firms whose business models are either novelty-centered or efficiency-centered outperform companies whose business model combine novelty and efficiency.

The context of our study is set within Austrian sustainable energy industry involving different sectors of clean technology, which, albeit still innovative, are no longer radical and are nearing maturity to different degree. Comparing the degree of maturity for different technologies makes it possible to investigate the proposed shift for business models of entrepreneurial firms from novelty-centered to efficiency-centered.

Method

Our study targets the population of sustainable energy providers in Austria. The initial operationalization of novelty- and efficiency-centered business model design follows Zott and Amit (2007; 2008). In order to increase reliability and validity of the study the final operationalization will be carried out based on Brettell's et al. (2012) study, where the survey was conducted in German.

Since the technology component includes only three items out of 13 in the novelty-based business model scale (Zott and Amit, 2007), we augment it basing on the Gatignon's et al. (2002) as well as Schwarz, Faullant and Matzler's (2009) innovativeness measure. The level of technology maturity is assessed basing on Schilling and Esmundo's (2009) evaluation for renewable energy alternatives.

Results and Implications

The results show that companies using mature technologies mostly have efficiency-centered business models, so our initial hypothesis of business model shift accompanying technology development is partially supported. In line with the findings by Zott and Amit (2007), novelty shows significant correlation with our performance measures; however, efficiency seems to have no effect on performance. Our second hypothesis is partially supported. Also complementarities and lock-in show significant positive correlation with performance, unlike the study by Zott and Amit (2007), where these design dimensions remained non-significant.

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