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# Open-Source Software Entrepreneurial Business Modelling

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**Abstract.** This poster aims to facilitate business planning of bootstrapping entrepreneurs who are developing a high-tech business by open-source approach. It draws on scholarly works on business modelling and open-source software to provide a practical tool for entrepreneurs establishing a business by open-source approach. Built on top of established business modelling frameworks, the Open-Source Software Entrepreneurial Business Modelling (OSS\_EBM) can be a useful strategic management and entrepreneurial tool. It enables strategists and entrepreneurs to describe, design, challenge, invent, brainstorm, pivot, analyze and improve upon open-source business models.

## 1 Introduction

The open-source software community has already established itself as a valuable source of innovation [1–3]. However, how to make money with open-source software remains an interesting question intriguing both researchers and practitioners [4–6]. This paper draws on research on business modelling [7–9] and open-source software [6], [10–14] to provide a practical tool for bootstrapping entrepreneurs developing a high-tech business by open-source approach. Built on top of other previously established business modelling frameworks [8], [9], the Open-Source Software Entrepreneurial Business Modelling (OSS\_EBM) is a conceptual tool that aims to be useful in entrepreneurial planning and strategic management of open source ventures. Specifically tailored for the high-tech software business, the OSS\_EBM framework enables high-tech strategists and entrepreneurs to describe,

design, challenge, invent, brainstorm, pivot, analyze and improve open-source business models. This poster targets mostly practitioners interested in setting up a business with the help of open-source technology. Our earlier work reveals there is a need for better tools of business planning among open source ventures [15].

## **2 Methods**

The method of OSS\_EBM is to turn earlier scholarly works to practice in the format of a visual canvas. Exploiting the success of the Business Model Canvas [8], the popular business modelling framework was customized for the specificities of the high-tech software business and complemented with “platform thinking” and ecosystem features from the VISOR framework [9]. Moreover, the fusion of the two previously mentioned business modelling frameworks was complemented with open-source research knowledge on software licensing [12–13] and business models [4–6]. The OSS\_EBM framework is thereby a simple multi-disciplinary combination of research in business models and open-source software, turned into a visual canvas in the purpose of guiding practitioners in setting up an open-source based business.

We are currently in this process of testing how the tool can best be applied by entrepreneurs. Earlier versions of the OSS\_EBM framework were introduced in an e-commerce university course targeting both master and doctoral students. Moreover, this framework was presented at two events of early-stage startup business incubators. Four workshops and free consultation were conducted with startup teams interested in developing a software business by open-source approach. Feedback was collected informally from bootstrap entrepreneurs, serial entrepreneurs and other personnel of the incubators; leading to some changes on the OSS\_EBM framework till date. Modifying the tool further is currently underway.

## **3 Finding, Implications and Future work**

So far, practitioners’ impressions on the relevance of the OSS\_EBM framework vary widely. Most recognized the value of this framework, for being specifically tailored for the high-tech software business; however, most users of the OSS\_EBM framework still report difficulties in understanding how their business ideas can generate monetary results with open-source software. Even if the framework does not help all its users in developing a business by open-source approach, all users claimed to have learned to a large extent about open-source software after using the framework. We wish then that the OSS\_EBM framework will continue developing while helping high-tech entrepreneurs develop, or at least consider developing, businesses by open-source approach. In particular, more thorough action research studies are on the way; guiding and observing focal startups in the use of this tool. Our ultimate goal is to offer technology-minded founders a useful tool for managing

the wide selection of business model components, including revenue models, and for crafting the right combination in their particular case.

## References

- [1] J. Henkel, "Selective revealing in open innovation processes: The case of embedded Linux," *Research Policy*, vol. 35, no. 7, pp. 953–969, 2006.
- [2] J. Lerner and J. Tirole, "The open source movement: Key research questions," *European Economic Review*, vol. 45, no. 4, pp. 819–826, 2001.
- [3] S. Weber, *The success of open source*, vol. 368. Cambridge University Press, 2004.
- [4] J. West and S. Gallagher, "Challenges of open innovation: the paradox of firm investment in open source software," *RD Management*, vol. 36, no. 3, pp. 319–331, 2006.
- [5] F. Hecker, "Setting up shop: the business of Open-Source software," *Software IEEE*, vol. 16, no. 1, pp. 45–51, 1999.
- [6] T. Wasserman, "Building a Business on Open Source Software," 2009. [Online]. Available: [http://works.bepress.com/tony\\_wasserman/3/](http://works.bepress.com/tony_wasserman/3/). [Accessed: 14-Nov-2013].
- [7] A. Osterwalder, Y. Pigneur, and C. L. Tucci, "Clarifying business models: Origins, present, and future of the concept," *Communications of Association for Information Systems*, vol. 16, no. 1, pp. 1–25, 2005.
- [8] A. Osterwalder and Y. Pigneur, *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. Wiley, 2010.
- [9] O. A. E. Sawy and F. Pereira, *Business Modelling in the Dynamic Digital Space: An Ecosystem Approach*. Springer, 2013.
- [10] A. Aksulu and M. Wade, "A comprehensive review and synthesis of open source research," *Journal of Association for Information Systems*, vol. 11, no. 11, pp. 576–656, 2010.
- [11] K. Crowston, K. Wei, J. Howison, and A. Wiggins, "Free/Libre open-source software development: What we know and what we do not know," *ACM Computing Surveys CSUR*, vol. 44, no. 2, p. 7, 2012.
- [12] J. Lindman, M. Rossi, and A. Paajanen, "Matching open source software licenses with corresponding business models," *IEEE Software*, vol. 28, no. 4, pp. 31–35, 2011.
- [13] J. Lindman, *Not Accidental Revolutionaries: Essays on Open Source Software Production and Organizational Change*. Aalto University, School of Economics, Department of Information and Service Economy, 2011.
- [14] J. Salminen and J. Teixeira, "Fool's Gold? Developer Dilemmas in a Closed Mobile Application Market Platform", in *Co-created Effective, Agile, and Trusted eServices*, Turku, 2013, pp. 121–132.
- [15] J. Teixeira and J. Salminen, "Open-Source as Enabler of Entrepreneurship Ambitions Among Engineering Students – A Study Involving 20 Finnish Startups", in: *International Conference on Engineering Education 2012 – Proceedings, Research reports 38*, pp. 623–629, Turku University of Applied Sciences, 2012.