



**HAL**  
open science

# Open-Source Software Entrepreneurial Business Modelling

Jose Teixeira, Joni Salminen

► **To cite this version:**

Jose Teixeira, Joni Salminen. Open-Source Software Entrepreneurial Business Modelling. 10th IFIP International Conference on Open Source Systems (OSS), May 2014, San José, Costa Rica. pp.80-82, 10.1007/978-3-642-55128-4\_10 . hal-01373059

**HAL Id: hal-01373059**

**<https://inria.hal.science/hal-01373059v1>**

Submitted on 28 Sep 2016

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution 4.0 International License

# Open-Source Software Entrepreneurial Business Modelling

Jose Teixeira  
University of Turku (UTU), Finland  
Turku Centre for Computer Science (TUCS) , Finland  
jose.teixeira@utu.fi  
WWW home page: <http://www.jteixeira.eu>

Joni Salminen  
Turku School of Economics (TSE), Finland  
joni.salminen@tse.fi

**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.