

**This is a self-archived version of an original article. This version may differ from the original in pagination and typographic details.**

**Author(s):** Nieminen, Teemu; Mohanani, Rahul; Abrahamsson, Pekka

**Title:** Conducting B2B SaaS Business with a Freemium Model : A Case Study

**Year:** 2022

**Version:** Accepted version (Final draft)

**Copyright:** © 2022 The Author(s), under exclusive license to Springer Nature Switzerland AG

**Rights:** In Copyright

**Rights url:** <http://rightsstatements.org/page/InC/1.0/?language=en>

**Please cite the original version:**

Nieminen, T., Mohanani, R., & Abrahamsson, P. (2022). Conducting B2B SaaS Business with a Freemium Model : A Case Study. In N. Carroll, A. Nguyen-Duc, X. Wang, & V. Stray (Eds.), *Software Business : 13th International Conference, ICSOB 2022, Bolzano, Italy, November 8–11, 2022, Proceedings* (pp. 134-140). Springer. Lecture Notes in Business Information Processing, 463. [https://doi.org/10.1007/978-3-031-20706-8\\_9](https://doi.org/10.1007/978-3-031-20706-8_9)

# CONDUCTING B2B SAAS BUSINESS WITH A FREEMIUM MODEL: A CASE STUDY

Teemu Nieminen, Rahul Mohanani<sup>[0000-0001-7018-8836]</sup> and

Pekka Abrahamsson<sup>[0000-0002-4360-2226]</sup>

University of Jyväskylä, Seminaarinkatu 15, 40014 Finland  
teemu.mi.nieminen@gmail.com, rahul.p.mohanani@jyu.fi,  
pekka.abrahamsson@jyu.fi

**Abstract.** This article studies what are the characteristics of a B2B SaaS freemium firm. Freemium in a B2B setting is an under-explored phenomenon whereas B2C SaaS freemium has been studied extensively. On the consumer side freemium has played a big role but freemium has only recently started to enter the B2B environment. Traditional, sales-led B2B SaaS companies have increasingly begun to turn to freemium and hence, it is important to understand how do they go about it. The empirical qualitative research was conducted as a case study and the data was gathered by interviewing European B2B SaaS freemium businesses. The data was analysed using qualitative thematic analysis and the coding approach used for identifying the concepts was open coding and axial coding. From the data three main success factor themes emerged that were evident in the B2B environment: customer success, internal enablers and external enablers.

**Keywords:** SaaS, Software-as-a-Service, Freemium

## 1 Introduction

Software-as-a-service (SaaS) has become one of the go-to business models of the past decade (Bhardwaj, Jain, & Jain, 2010; Satyanarayana, 2012; Elsayed & Zulkernine, 2019) and given the surge of the SaaS model, academia has taken note of the factors driving their success (Walther, Plank, Eymann, Singh & Phadke, 2012). Naturally, SaaS has attracted attention from academics but thus far the B2C side of SaaS has received of the majority of the attention, especially in the freemium space (Shankar, Attri & Vigneswara Ilavarasan, 2021). A basic definition of a freemium service is that it describes a business model in which the service provider uses a combination of two products and services. One item is completely free of charge while a complementary item is sold at a profit (Pujol, 2010). In the freemium business model customers get a sort of restricted or a basic version of the application for free.

On top of studying the best practices, this paper will contribute to the Information Systems (IS) theory and fill the area that has been under-explored in the IS literature. To find answers and best practices in such an under-explored area academic-wise, one ought to interview B2B SaaS freemium firms. Knowing how B2B freemium companies conduct business, it is possible to form the main characteristics of the B2B freemium

business and answer the research question. **The research question** that this paper answers is: “*How to characterise a B2B freemium model?*”

## 2 Theoretical background

### 2.1 Freemium business model

A SaaS provider seeks to persuade the freemium version users to convert into paying ones by offering them more advanced versions of the application (Holm & Günzel-Jensen, 2017). This demand can be done through, for example, making the application a bit inconvenient to use without a payment (Hamari, Hanner & Koivisto 2020).

Seufert (2013) claims that even though the freemium business model does not have fixed rules or boundaries, it is composed of three design elements or trends that are fundamental for all freemium products. Firstly, the wider the applicability of the product, the broader the likely user base is. Kumar (2014) even goes as far as saying that the sole point of having a freemium service at place is to generate as much traffic towards your service as possible. Seufert (2013) asserts a SaaS must, just like any other service, sooth a pain of a customer and have a clear use case. In contrast with a regular SaaS, a freemium service should have a potential to be used for a wide range of purposes and this virtue is something all freemium service designers covet. The second element is that only a handful of all freemium users ever convert into paying customers. Of the total user base of a freemium product only about five percent are paying customers. It is extremely difficult to monetise the users of a freemium product and that is why it is so popular to make the service as widely applicable as possible. The third element is that a small number of users spend immense amounts of money within the product.

### 2.2 Freemium in B2B

The popularity of the freemium business model has been rising especially among the companies in the gaming industry for quite some time now (Evans, 2016; Hamari, Hanner & Koivisto, 2017; Montag, Lachmann, Herrlich & Zweig, 2019). The phenomenon has been widely researched in the games industry and some of these learnings can be utilised in other freemium markets.

There is not much to say about previous studies regarding freemium in the B2B environment. The study by Wagner, Benlian & Hess (2014) laments that there are simply too few studies focusing on the B2B side of freemium.

### 2.3 Success factors of freemium

For the purpose of this paper, it would be useful to bear in mind the nuance distinctions between the success factors of a regular SaaS and a freemium SaaS. Some research, for example Satyanarayana (2012), state that the success of a SaaS provider is heavily linked with the success of the customers of the provider. More than one research paper

argue (Maltz & Barney, 2012; Holm & Günzel-Jensen, 2017) that freemium only works for products that have a massive market because of the extremely low conversion rate (the five percent rule). The authors say a freemium service providers success is tied to attracting a massive amount of freemium users. Some related studies (such as Maltz & Barney, 2012) also argue that one of the keys to success in a freemium business model is to keep the marginal costs low and minimise marketing and sales expenses.

The literature (Hamari, Hanner & Koivisto 2020; Shankar, Attri & Vigneswara Ilavarasan, 2021) notes that customer satisfaction and good user experience are critical for the success of freemium providers. The research by Maltz & Barney (2012) support this sentiment: their research says a freemium vendor should steer its business through the heavy utilisation of data, more specifically cohort data. The research argues that freemium customers might use the service for free for years before they turn into paying customers. The only way to measure and determine that a freemium user is on the path towards conversion is through cohort data.

Holm & Günzel-Jensen (2017) have found there are also nine strategical choices for freemium vendors that are integral in their aspirations for success: 1) maintain high value in both the free and premium offerings, 2) strike a balance between free and premium offerings, 3) maximise the value from free users, 4) mine user behaviour data, 5) take advantage of social media, 6) exploit well-established market players, 7) mind the costs of free-user management, 8) internationalise, 9) acquire new technologies through mergers and acquisitions.

Seufert (2013) writes that freemium services must be able to accommodate massive scaling so that a desired level of adoption can be met to drive revenue. The characteristics of a product that facilitates massive scale are low marginal distribution and production costs. In addition, the study found that insight is just as important as scale. In the context of freemium SaaS, insight refers to the freemium product's entire data supply chain. From data, developers gain valuable knowledge on what works and what to change. Everything in freemium revolves around monetisation since a paying customer is essentially buying an enhanced experience compared to the free one. Finally, the study concludes that the faster a freemium service is optimised based on the prior points, the faster the vendor can harvest the fruits of the labour. Optimisation in the freemium context means the process of translating data of user behaviour into product improvements that have a positive effect on a certain performance metric.

### **3 Research approach**

The research was of qualitative nature as getting access to the data requires interviewing converted freemium users. Qualitative research methods in general enable researchers to examine complex phenomena in their social and cultural context (Myers, 1997).

Google and LinkedIn were used to search for B2B SaaS firms who have a freemium service. After identifying these firms, they will be contacted. From then on, interview questions and topics were crafted based on the literature's views on success factors for freemium business.

The aim of this study is to find regularities and generalisability in the answers of the interviewees. Thus, data will be analysed systematically in an iterative manner using open coding and axial coding. Axial coding is used to synthesise and organise data into structured categories and subcategories and discover their potential relationship to one another (Scott & Medaugh, 2017).

Four European B2B SaaS freemium service providers were interviewed for this study. The interviews were unstructured in nature and contained of open-ended questions. The interview topics were based on the findings from the theory part of the study.

The data was analysed using qualitative thematic analysis. The aim of the theming was to identify central concepts from the data. Thematic analysis was used to find out how the B2B SaaS freemium businesses in the sample described their ways to conduct freemium business in a B2B environment. The coding approach used for identifying the concepts was open coding and axial coding. Khandkar (2009) illuminates this type of process as something that will make the concepts emerge from the raw data and then later grouped into conceptual categories. Khandkar (2009) continues by arguing that the validity of the analysis stands on a firm ground because it builds directly from the raw data. To form the list of common themes, the interviewees' answers were gone through to find what kind of commonalities they described in their practices when striving towards fulfilling these basic tenets of B2B freemium.

## 4 Findings

Altogether nine primary empirical conclusions were found when the empirical data was analysed. The complete framework of the success factor themes of B2B freemium is presented in Figure 1.

**Table 1.** Primary empirical conclusions from the data

IDENTIFIER	EMPIRICAL CONCLUSIONS
PEC1	B2B SaaS firms usually approach business from a sales-led perspective but invest in freemium services when they want to expand into bigger markets, achieve better scalability, differentiate from competitors and bring in SME customers. Turning profit is difficult and can lead to internal bickering.
PEC2	Sales-led B2B SaaS providers who created a freemium version of their product see freemium as a feature that enables them to pursue product-led growth strategy. Their decisions are not always based on data and the new service is often under-resourced.
PEC3	Freemium itself serves as a marketing tool but B2B freemium providers also create original content and, with clever targeting, use ads to lure in new users. Providers must excel at SEO and get satisfied customers into writing favourable reviews. A big market underpins the potential for success.
PEC4	B2B freemium providers do not give freemium users access to integrations but they play an important role in converting

	freemium users into premium ones. Integration projects are started only when premium customers express interest in them.
PEC5	M&A is difficult and a resource consuming way to acquire new features and customers and hence, it is not seen as an important way to expand one's B2B SaaS freemium business.
PEC6	All users go through a sign-up flow and receive limited premium time. Data is constantly gathered of users, of their actions, choices as well as their predilections. The teams running the data handle it delicately and they are given adequate resources.
PEC7	The most efficient way to boost conversion is to focus on the free trial period and tailor the content for a given user. Data should determine lead qualification and the development of the product. The product itself should be able to do sales in an automatised way.
PEC8	The content that is used for driving traffic to the website should be in English to reach as wide an audience as possible. English content helps expand internationally. Websites should be optimised for different ICPs and B2B freemium providers ought to have ICPs separately for users and companies.
PEC9	Executives should be held accountable for the costs their operations incur to the business and only engage in business acts when the return is manifold compared to the costs incurred by them.

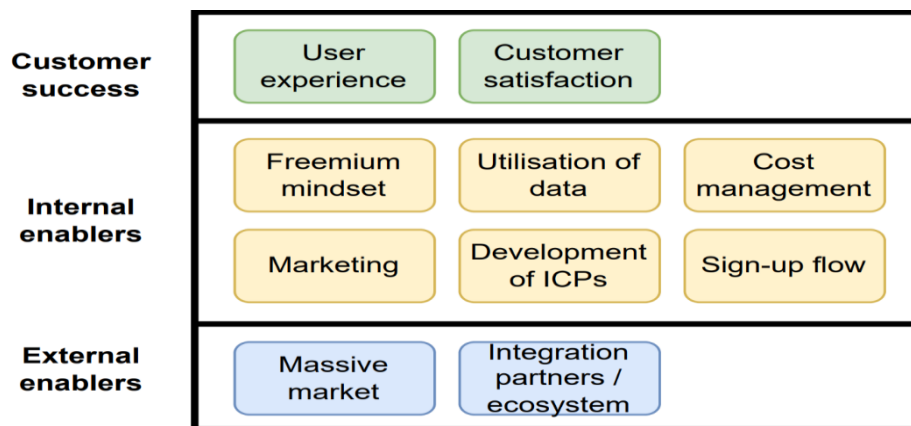


Fig. 1. Success factor themes of B2B freemium

## 5 Discussion

The goal of this study was to shed light on the under-explored area of IS literature that is B2B SaaS freemium business. The empirical evidence is testament to the fact that

there are differences between the explored B2C freemium business and B2B freemium business models. On the practical side, this study aimed to highlight the characteristics of a B2B SaaS freemium model and how it differs from the B2C one.

**Table 2.** Practical implications of primary conclusions

IDENTIFIER	IMPLICATION FOR PRACTICE
PEC1	Executives of a sales-led B2B SaaS vendor should examine their reasoning and commitment to freemium if they switch from sales-led growth model to product-led growth model.
PEC2	B2B SaaS firms making the switch should allocate adequate resources to the development of their freemium service.
PEC3	B2B freemium providers should make sure their potential market is vast and invest heavily in marketing from making sure the word of the service travels to create content to targeted advertisement.
PEC4	Developing integrations is necessary but B2B freemium providers should ask the premium customers what integrations should be developed.
PEC5	B2B freemium vendors have better things to do with their resources than pursuing ostentatious M&A projects.
PEC6	A limited time free trial with all premium perks should be provided for new users. Data of all users should be gathered at all times and the data should steer the development of the freemium service.
PEC7	B2B freemium service providers should target user and website visitors with tailored content. The product should perform sales in an automatised way if it spots an opportunity for expansion sales.
PEC8	B2B freemium companies should create content first in English as it helps reaching international markets. They should create and constantly hone ICPs for both company and user profiles to aid in targeting them more precisely.
PEC9	B2B freemium firms should not commit themselves to business decisions without a proper due diligence of the costs and probable returns.

## 6 Threats to validity

The first thing to keep in mind about this paper's validity is the lack of prior literature. There were few articles of the topic to draw inspiration and direction from and it massively affected on the focus of the paper. There might be considerations that have not come up to mind when, for example, crafting the research question or interview themes. The most striking limitation of this study is the size of the data sample. The ability to make wide conclusions for the whole the sphere of business on the topic requires more data. There might be quite a few companies around the world who conduct their B2B SaaS freemium operations in a very different manner than the ones interviewed for this study and thus, hampers the generalisability of the findings of this paper.

## References

1. Bhardwaj, S., Jain, L., & Jain, S.: An approach for investigating perspective of cloud Software-as-a-Service (SaaS). *International Journal of Computer Applications*, 10(2), 40-43. (2010)
2. Elsayed, M., & Zulkernine, M.: Offering security diagnosis as a service for cloud SaaS applications. *Journal of information security and applications*, 44, 32-48. (2019)
3. Evans, E.: The economics of free: Freemium games, branding and the impatience economy. *Convergence*, 22(6), 563-580. (2016)
4. Hamari, J., Hanner, N., & Koivisto, J.: Service quality explains why people use freemium services but not if they go premium: An empirical study in free-to-play games. *International Journal of Information Management*, 37(1), 1449-1459. (2017).
5. Hamari, J., Hanner, N., & Koivisto, J.: "Why pay premium in freemium services?" A study on perceived value, continued use and purchase intentions in free-to-play games. *International Journal of Information Management*, 51, 102040. (2020)
6. Holm, A. B., & Günzel-Jensen, F.: Succeeding with freemium: strategies for implementation. *Journal of Business Strategy*. (2017)
7. Khandkar, S. H.: Open coding. University of Calgary, 23, 2009. (2009)
8. Kumar, V.: Making" freemium" work. *Harvard Business Review*, 92(5), 27-29. (2014)
9. Maltz, J., & Barney, D.: *Freemium Software: A Guide for Startups*. Institutional Venture Partners. (2012)
10. Montag, C., Lachmann, B., Herrlich, M., & Zweig, K.: Addictive features of social media/messenger platforms and freemium games against the background of psychological and economic theories. *International journal of environmental research and public health*, 16(14), 2612. (2019)
11. Myers, M. D.: Qualitative research in information systems. *Management Information Systems Quarterly*, 21(2), 241-242. (1997)
12. Satyanarayana, S.: Cloud computing: SAAS. *Computer Sciences and Telecommunications*, (4), 76-79. (2012)
13. Scott, C., & Medaugh, M.: Axial coding. *The international encyclopedia of communication research methods*, 10, 9781118901731. (2017)
14. Seufert, E. B.: *Freemium economics: Leveraging analytics and user segmentation to drive revenue*. Elsevier. (2013)
15. Shankar, S., Attri, S., & Vigneswara Ilavarasan, P.: What Makes MNC's B2B Freemium Model for Start-Ups Work in the Emerging Markets?: Insights From India. In *2021 7th International Conference on E-Business and Applications* (pp. 6-11). (2021)
16. Wagner, T. M., Benlian, A., & Hess, T.: Converting freemium customers from free to premium—the role of the perceived premium fit in the case of music as a service. *Electronic Markets*, 24(4), 259-268. (2014)
17. Walther, S., Plank, A., Eymann, T., Singh, N., & Phadke, G.: Success factors and value propositions of software as a service providers—a literature review and classification. (2012)