

The influence of users' dual role, as supply of contributions and demand of solutions, on business model innovation

An explorative case study of Threadless

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Abstract

Users are increasingly being acknowledged as more than just passive consumers of products and services, leading academics to suggest we are in the midst of a paradigm shift from producer to user-centered innovation processes. As companies leverage on their users in the innovation processes, the users are integrated into the supply side of the value chain, hence the users occupy a dual role as demand of solutions and supply of contributions. Prior research has emphasized advantages, limitations, challenges and methods for companies aiming to leverage on their self-selecting users. Through an explorative case study of Threadless, a community based design company with more than 2.5M registered users, this research joins the debate by exploring how the dual role of the users have influenced business model innovation at Threadless. The study suggests that business model innovation is likely to be influenced by the perceived benefit from the users and moderated by perceived partnership, sense of gratitude, and perceived identification with the firm. If the level of perceived partnership, the sense of gratitude, and the perceived identification with the firm are higher, then the user is more likely to positively perceive the changes to the business model and will continue to contribute to the firm. However, a high level of identification is found to constrain business model innovation, as certain options are perceived to conflict with the values of the current model. Furthermore, the study suggests that the actions of the independent users can lead to new business opportunities and engaging with the users can decrease cognitive barriers for business model innovation. Yet, due to users' individual, varied and changing motivations for contributing to Threadless, it is challenging to satisfy all the users when changing the business model and careful management of the company seems vital for firms aiming to continuously and systematically leverage on their users as both supply of contributions and demand of solutions.

Key words: user innovation; business model innovation; platforms; user communities

Table of contents

ABSTRACT	2
TABLE OF CONTENTS	3
1. INTRODUCTION	5
2. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK	11
2.1 LITERATURE REVIEW	11
2.1.1 USER INNOVATION: THE EMERGENCE OF USERS' DUAL ROLE	11
2.1.2 PLATFORMS: BECOMING A PLATFORM	15
2.1.3 BUSINESS MODELS: THE USER-CENTERED BUSINESS MODEL	18
2.2 CONCEPTUAL FRAMEWORK	22
2.2.1 MOTIVATIONAL DIMENSIONS	23
2.2.2 KNOWLEDGE SET DIMENSIONS	30
3. METHOD AND CASE DESCRIPTION	34
3.1 RESEARCH APPROACH AND RESEARCH STRATEGY	34
3.1.1 SELECTING THE CASE	35
3.1.2 DATA COLLECTION	37
3.1.3 DATA REDUCTION	39
3.1.4 GENERALIZABILITY AND VALIDITY	40
3.2 THREADLESS: CASE DESCRIPTION	41
3.2.1 THREADLESS: BACKGROUND	41
3.2.2 THE DUAL ROLE OF USERS IN THREADLESS	42
3.2.3 BUSINESS MODEL INNOVATION AT THREADLESS	43
4. FINDINGS AND ANALYSIS	47
4.1 PERCEIVED BENEFIT	47
4.2 PERCEIVED PARTNERSHIP	54
4.3 SENSE OF RESPONSIBILITY	56

4.4 PERCEIVED IDENTIFICATION	59
4.5 LARGE AND DIVERSE CROWD	61
5. DISCUSSION	68
5.1 SUMMARY OF THE MAIN FINDINGS	68
5.2 IMPLICATIONS	72
5.2.1 MANAGERIAL IMPLICATIONS	72
5.2.2 ACADEMIC IMPLICATIONS	74
5.3 LIMITATIONS	76
5.4 FURTHER RESEARCH	77
ACKNOWLEDGEMENTS	79
REFERENCES	80
ACADEMIC LITERATURE	80
EMPIRICAL DATA AND OTHER	87
APPENDIX	89
1. LIST OF RELEVANT FORUM AND BLOG POSTS	90
2. LIST OF THREADLESS RELATED ARTICLES IN MAGAZINES AND NEWSPAPERS	92
3. INTERVIEW GUIDELINE	93
4. BACKGROUND DESCRIPTIONS OF KEY EMPLOYEES AND USERS	96

1. Introduction

Today users are increasingly being acknowledged as more than just passive consumers of products and services (von Hippel, 2005). Academic literature within user innovation has shown how users are an important source of creative ideas for new products and services across a diverse set of industries (von Hippel, 2005). This has led academics to state that we are in the midst of a paradigm shift from producer-centered innovation processes to a user-centered innovation process (von Hippel, Ogawa, & Jong, 2012; Keinz, Hiennerth, & Lettl, 2012; Bogers & West, 2012; Baldwin & von Hippel, 2011). When companies leverage on competencies of their users in the innovation process, the users are actively being incorporated into the supply side of the value chain. Hence the users occupy a dual role as both demand of solutions and supply of contributions previously recognized to solely take place within the individual firm.

The nature of the contributions users are supplying companies with are numerous and include: solution-based information for new products or problems (Poetz & Schreier, 2012), need-based information that can be accessed through, for example, toolkits (Henkel & von Hippel, 2004), services such as online helplines where users help other users in their innovation process and with the diffusion of the innovation (Jeppesen & Frederiksen, 2006), funding and screening of new products through crowdfunding (Antorini, Muniz, & Askildsen, 2012; Ordanini et al., 2011), new product development through, for example, modifications of existing offerings (Jeppesen & Molin, 2003), evaluation of new product ideas (Hiennerth & Riar, 2013) and finally some companies have built a business model where users receive products or services without any monetary payment by supplying their attention that the firm can sell to, for example, advertising (Casadesus-Masanell & Zhu, 2012; McGrath, 2010).

Integrating the users into contributing to the supply of the company results in transforming the company, or a particular product, into a platform, where the platform owner mediates between the end customers and the external contributors (Boudreau & Lakhani, 2009).

There are basically three different ways of organizing the platform: the integrator model, the product model, and the two-sided market model (Boudreau & Lakhani, 2009). These three models differ in who sells to whom and the level of control the platform owner has on the external contributing users (Boudreau & Lakhani, 2009). Furthermore, the platform owner might decide to leverage on external contributions on some aspects of the platform, while relying on internal development of other aspects (Lakhani, Lifshitz-Assaf, & Tushman, 2012; Eisenmann, Parker, & Alstynne, 2008). Additionally, the nature of user contribution to the platform depends on the timeframe of the involvement of the users (from one-time to repetitive involvement), and the number of users involved in the contribution (from a few lead users to a large community) (Keinz et al., 2012). Keinz et al. (2012) uses the label cooperation to describe a repetitive involvement of a smaller number of (lead) users, while a repetitive involvement of a larger number of external stakeholders (including lead users and user communities) is labeled as ecosystem. The repetitive involvement of users is a new emerging phenomenon within user innovation, as prior studies mainly have regarded user involvement as a singular and temporary collaboration outside the core business processes (Hienerth, Keinz, & Lettl, 2011).

User innovation research has associated many advantages for companies who apply a platform model where the users are regularly involved in the innovation process. First of all, users have use-knowledge of products and are thereby able to recognize strengths and weaknesses of the existing product (Keinz et al., 2012; von Hippel, 2005). Secondly, leveraging on an external crowd of users has scale and diversity advantages companies cannot match internally (Boudreau & Lakhani, 2013; Baldwin & von Hippel, 2011). Finally, users' incentives for contributing to companies are often non-pecuniary, making them more cost effective compared to the employees of a company who operate mainly through pecuniary motivations (Boudreau & Lakhani, 2013). Interestingly, there are an increasing number of examples of companies where the users, in various ways, have influenced the company to apply a radically new business model with high success. Among the notable examples is how the jailbreaker community around the first iPhone let Apple to open up for

third party contributors through the creation of the App Store (Miric, 2013). Another example is how LEGO has benefited in many ways from its ongoing collaboration with users (Antorini et al, 2012). This indicates that users' contributions might not only be relevant for product innovation, but also for business model innovation.

The advantages of incorporating user contributions do not come without challenges. The users function as non-paid, autonomous individuals (Boudreau & Lakhani, 2009; 2013) requiring the platform owner to attract the self-interest of the users rather than picking the supplier through monetary transfer. To leverage on user innovation, the platform owner must act as a facilitator of collaborative innovation processes rather than enforcing certain outcomes (Keinz et al., 2012). This requires a fundamentally different organizational design compared to the producer-centered innovation process (Keinz et al., 2012). The management of a platform is further complicated by same-side and cross-side network effects among and between the different sides of the platform (Eisenmann et al., 2006; Boudreau, 2012). Literature has shown how companies need to carefully manage the ecosystem surrounding their platform through not only applying price-setting, but by utilizing a wide range of strategic instruments such as investments, technology rules, information dissemination, and contracting choices (Boudreau & Hagiu, 2008; Boudreau, 2010). Finally, recent literature within user and open innovation has investigated how the motivation of unpaid complementors is influenced by the growth/decline of platform usage (Boudreau & Jeppesen, 2012; Miric, 2013; Boudreau, 2010; 2012; Zhang & Zhu, 2011).

Despite of the growing number of literature within this field, the dual role of users, as suppliers of various contributions and demand of solutions, has only been systematically investigated within the specific context of open source software, as a potential new type of value creation without the traditional logic of a profit-seeking firm (Weber, 2004). This research addresses the phenomenon of users' dual role in the context of commercial firms, who have an ongoing collaboration with a large group of users, by specifically investigating how the dual role influences business model innovation. Hereby, this research is

distinguished from the wider research stream on open innovation, which also underlines the importance for companies to develop a platform business model, but mainly seems to be highlighting external contributions such as licensing, spin-offs, and joint ventures, among other means (Chesbrough, 2007; 2011). Contrary to these types of external firm collaboration, users are unique in the sense that they benefit directly from contributions, whereas producers expect to benefit from selling a solution to the users (von Hippel, 2005). Similarly this research distinguish itself to the line of research arguing that users are increasingly becoming a fixed institution available on demand through various online crowdsourcing platforms (Boudreau & Lakhani, 2013). Note that a contributing user (or user community) does not necessarily have to be the demand of her (or their) own contribution, but might supply the firm with a contribution for other users to consume (e.g. when updating your Facebook status). Where prior research has explored how firms can transform from a producer-centered business model to a user-centered business model (Hienerth et al., 2011), this research explores how business model innovation is influenced by the successful adoption of a user-centered business model. Following this, the research question has been developed:

- How does the dual role of users, as supply of contributions and demand of solutions, influence business model innovation?

From a practical point of view this question is relevant to answer because an increasing number of companies (both incumbents and startups) apply some type of platform business model where they leverage on the users as suppliers of contributions. Furthermore, many of the startups that leverage on user supplied activities do not initially have any working mechanisms for capturing value. Boudreau and Hagiu (2008) provide two examples of how Facebook attempted to optimize its business model: the unsuccessful introduction of a new platform function Beacon, and the successful decision to open its platform beyond the education segment. Their argumentation is that it was ambiguous whether these moves would have a positive or negative net impact on economic value

creation a priori to the decision of imposing them. Hence more research is needed in order to better understand the processes of user-centered business models. Furthermore, the examples from Facebook hint that managing platforms is not just about profit seeking behaviour for the platform owner, but a more complex task of maximizing value created for the entire ecosystem and subsequently capture as much of the created value as possible (Boudreau & Hagiu, 2008).

From a theoretical perspective this question is interesting to answer as it contributes to the relatively new field of research on user-centered innovation processes (von Hippel, 2005). Within the stream of research on user-centered innovation processes, this research contributes particularly to the emerging subfield of management of ecosystems (Keinz et al., 2012; Boudreau & Hagiu, 2008), user-centered business models (Hienerth et al., 2011) and platforms with network effects (Boudreau & Jeppesen, 2012; Boudreau, 2010; 2012; Zhu & Iansiti, 2012; Miric, 2013). However, the findings hold valid for other research fields affected by the increasingly widespread use of users as both supply and demand, such as marketing, intellectual property rights management, and new product development. Lastly, this research contributes to the research stream of business model innovation (Zott, Amit, & Massa, 2011).

To fill the research gap, this research used a theory-building approach following Huberman and Miles (2002) allowing for an understanding of the dynamics of business model innovation in user-centered business models. The explorative case study approach was chosen, as it is applicable to the nature of the research question and when there is a lack of specific theory and empirical evidence in the research field (Yin, 2009). Threadless was picked as the case as the company is systematically and continuously leveraging on their users and have recently experimented with business model innovation, thereby allowing for an understanding of contemporary events (Yin, 2009). Prior to conducting engaging with Threadless, related research was investigated and the author developed a conceptual framework. The conceptual framework was deduced in order to direct the exploration,

allowing to measure the dimensions more accurately, and potentially triangulate the dimensions when support between empirical data and prior research (Huberman & Miles, 2002).

The study suggests that business model innovation is likely to be influenced by the perceived benefit from the users and moderated by perceived partnership, sense of gratitude, and perceived identification with the firm. If the level of perceived partnership, the sense of gratitude, and the perceived identification with the firm are higher, then the user is more likely to positively perceive the changes to the business model and will continue to contribute to the firm. However, a high level of identification is found to constrain business model innovation, as certain options are perceived to conflict with the values of the current model. Furthermore, the study suggests that the actions of the independent users can lead to new business opportunities and engaging with the users can decrease cognitive barriers for business model innovation. Yet, due to users' individual, varied and changing motivations for contributing to Threadless, it is challenging to satisfy all the users when changing the business model and careful management of the company seems vital for firms aiming to continuously and systematically leverage on their users as both supply of contributions and demand of solutions.

The paper is structured as follows. In the next section a literature review is provided and a conceptual framework of how users' dual role influences business model innovation is developed. In the third section the method of the study is outlined and the case is presented. The findings of the empirical study are presented in section four. Section five provides a summary of the main findings and a discussion of the implications, limitations and suggestions for further research.

2. Literature review and conceptual framework

This section firstly establishes the theoretical background for understanding the context of the research question by drawing on three distinct research streams: user innovation research, platform literature, and business model innovation literature. Broadly explained the user innovation literature investigates the involvement of users in firms' activities, the platform literature investigates how the contributions from third parties transform the business into a platform, and business model innovation literature investigates the logic behind how a firm can change the way it creates, delivers and captures value. Note that although these three research streams are distinct from each other, they are also sharing common elements, as seen with the research question of this study.

Secondly this section presents a conceptual framework explaining various dimensions of users' dual role expected to influence business model innovation. This framework is mainly developed through literature within user innovation. The framework focus on the characteristics of the users and two main categories of dimensions are identified: motivational and knowledge set dimensions. Each category of dimensions consists of a range of dimensions that, based on previous research, are expected to influence business model innovation in various ways. The framework serves as an analysis grid in the findings section, and was furthermore used to structure the interviews.

It is important to emphasize that no prior research (to the awareness of the author) has explored how users' dual role influence business model innovation, thus the literature in this section derives from different, but related, research agendas.

2.1 Literature review

2.1.1 User innovation: The emergence of users' dual role

Today users are increasingly being acknowledged as more than just passive consumers of products and services (von Hippel, 2005). Academic literature within user innovation has shown how users are an important source of creative ideas for new products and services across a diverse set of industries (von Hippel, 2005). This has led academics to state we are in the midst of a paradigm shift from producer-centered innovation processes to a user-

centered innovation process (von Hippel, Ogawa, & Jong, 2012; Keinz et al., 2012; Bogers & West, 2012; Baldwin & von Hippel, 2011). What makes users such an attractive source for companies to access is first of all their use-knowledge of products, whereby they are able to recognize strengths and weaknesses of the existing product (Keinz et al., 2012; von Hippel, 2005). Furthermore, leveraging on an external crowd of users has scale and diversity advantages companies cannot match internally (Boudreau & Lakhani, 2013; Baldwin & von Hippel, 2011). Finally, users' incentives for contributing to companies are often non-pecuniary, making them more cost effective compared to the employees of a company who operate mainly through pecuniary motivations (Boudreau & Lakhani, 2013).

The user innovation literature has devoted a great deal of attention into describing different user innovation methods companies can apply to systematically integrate users into the companies' core business processes. These approaches can be divided into three (Keinz et al., 2012): a) the lead user method, b) crowdsourcing and user communities, and c) tool-kits and mass customization. The lead user method is a systematic approach to search for and, subsequently, involve a certain group of progressive users into the firms' innovation processes. These progressive users have two characteristics that make them commercially attractive for companies: they are ahead of the majority of users with regard to an important market trend, and they have a high benefit from innovation (von Hippel, 2005; Lilien, Morrison, Searls, Sonnack, & von Hippel, 2002). Where the lead user approach is company directed in the sense that the company is directing the search for the lead users, crowdsourcing is different. In crowdsourcing the company outsources an innovation-related task to a broad crowd of external self-selecting users (Keinz et al., 2012). This method has also been called broadcast search (Jeppesen & Lakhani, 2010) and often takes the shape of contests where the crowd compete for prizes (Jeppesen & Lakhani, 2010; Bullinger, Neyer, Rass, & Moeslein, 2010). The proposition for crowdsourcing is that a large quantity of users with heterogeneous backgrounds and skills are able to draw on solutions from a wider range of areas compared to when companies are solving a problem internally (Keinz et al., 2012). This makes the method especially useful when the company does not

know where to look for solutions (Pisano & Verganti, 2008). A method related to crowdsourcing is the collaboration between a company and a user community (Keinz et al., 2012). User communities are informal, self-organized networks of users who regularly and voluntarily exchange knowledge and innovative ideas and artefacts about a common interest or topic (Hienerth & Lettl, 2011). Significant collaboration is found within these communities making them an attractive innovation source and partner for companies (Franke & Shah, 2003). Finally, the toolkit method aims at shifting innovation-related product design from the producer to the end user by providing the user with integrated sets of product-design, prototyping, and design-testing tools (von Hippel, 2005). These, preferably user-friendly, tools enable and encourage users to customize a product to their own individual needs and preferences (von Hippel, 2005; von Hippel & Katz, 2002). In practice the toolkit method differentiates itself from the two former, as it is often used for mass customization rather than for the generation of radical new solutions (Keinz et al., 2012).

As the three methods for leveraging users require different approaches and propose different value propositions, research has generally focused on them in separate streams (Hienerth & Lettl, 2011). However, Hienerth and Lettl (2011) find that the interaction between the lead users and their peer communities is essential for the development and diffusion of lead user innovations. The communities provide feedback on the potential of lead users' ideas, demand and contribute to the development process, act as testers, and increase diffusion of innovation inside and outside of the community (Hienerth & Lettl, 2011). Hence companies who want to systematically leverage on users in their innovation processes are likely to increase success by applying a more holistic approach allowing for dynamic interactions between lead users, communities and the company. Furthermore, the other approaches described above have generally been implemented as singular or temporary methods outside the core business processes rather than ongoing activities (Hienerth et al., 2011). However, today more firms have managed to establish long lasting relationship with users, as well as between the users themselves. For example, Hienerth et

al. (2011), explore how Lego, IBM, and Coloplast successfully have managed to build such long lasting relationships and integrated the users into the core business processes. Other examples covered in user innovation literature include Dell, Threadless, Local Motors and Topcoder (Bayus, 2013; Langner & Seidel, 2013; Lakhani, Garvin, & Lonstein, 2010). Integrating a large amount of users into the core business processes requires significant organizational changes and the company need to realize themselves only as a part of the innovation ecosystem, consisting of the company, lead users, and user communities (Keinz et al., 2012). Managing this ecosystem requires for the company to act as a facilitator of collaborative innovation processes, rather than acting as an orchestrator using hierarchical power to enforce certain outcomes (Keinz et al., 2012).

When companies leverage on competencies of these user ecosystems in the innovation process, the users are actively being incorporated into the supply side of the value chain. Hence users occupy a dual role as both demand of solutions and supply of contributions previously recognized to take place within the individual firm. This blurs the boundaries between the focal firm and the users. In their study of Threadless, O'Mahony and Lakhani (2011), even contemplates whether the firm has outsourced its design or the community has outsourced its production: It is not clear who is a producer and who is a consumer.

The nature of the contributions, that users are being recognized for supplying companies, has vastly increased over the last years. In a recent study, Poetz and Schreier (2012), find that users are able to contribute with solution based knowledge for new products ideation for consumer goods that are evaluated to be significantly higher on novelty and customer benefits compared to ideas generated by a firm's professionals. This expands the role of users in new product development, where users traditionally have been recognized as passive consumers, whose only role is to have needs for the company to recognize and full-fill by creating new products (von Hippel, 2005). However, the nature of users' contributions is not limited to the contribution of need and solution knowledge. Users are increasingly being used for evaluation of ideas, concepts and problem solutions (Hienerth

& Riar, 2013). The evaluation of ideas can also be found in the process of crowdfunding, where users not only function as contributors of money, but also serve an important role of screening new ideas and selecting what ideas to support (Antorini et al., 2012; Ordanini et al., 2011). Furthermore, users have been found to be an important partner in diffusion of innovation through, for example, contributing help services to other users and thereby increasing adoption of the innovation (Jeppesen & Frederiksen, 2006; Nambisan & Baron, 2010). Users are also recognized for contributing new product development through modifying existing offerings (Jeppesen & Molin, 2003). Finally some companies have built a business model where users receive products or services without any monetary payment by supplying their attention that the firm can sell to, for example, advertising (Casadesus-Masanell & Zhu, 2012; McGrath, 2010).

2.1.2 Platforms: Becoming a platform

Integrating the users' contributions into the supply of the company results in transforming the company, or a particular product, into a platform, where the platform owner mediates between the different sides of the platform, often the end customer and the external contributors (Boudreau & Lakhani, 2009). Especially within technology platforms leveraging on external contributions of complements has been recognized as an important determinant of commercial success (Boudreau, 2010). Platform literature is useful in the context of this research, as it has devoted a great deal of attention to the network effects of such platforms, along with investigating different types of platforms, and how companies need to carefully manage the ecosystem of production and consumption (Boudreau & Hagiu, 2008; Boudreau & Lakhani, 2009; Gawer & Cusumano, 2012).

Firstly, platforms often exhibit network effects. Network effects describe the positive or negative attraction between the different sides of the platform (cross-side network effect) and among the members of one side (same-side network effect) (Eisenmann et al., 2006). Platform literature has mainly investigated platforms with one user side serving as market pull for a commercially motivated producer side, whose varied contributions are then in

turn appreciated by the user side¹. However, in a recent study, Boudreau and Jeppesen (2012), find similar network effects emerge on platforms where the contributor side had no monetary motivation for participating. This indicates that despite of the fundamentally different behaviour model, platforms with unpaid contributors follow similar dynamics as covered in prior literature (Boudreau & Jeppesen, 2012). Thereby, platforms with unpaid contributors are likely also to enjoy increasing returns to scale, differentiating them to most traditional businesses, where growth beyond a certain point tend to result in diminishing returns (Eisenmann et al., 2006).

Boudreau and Hagiu (2008) indicate that managing platforms is not just about profit seeking behaviour for the platform owner, but a more complex task of maximizing value created for the entire ecosystem and subsequently capture as much of the created value as possible. This task is complicated by the dynamics of the network effects and the limited control the platform provider has over the external contributors. For example, Gawer and Cusumano (2012) argue that the end use of the product or service is either unknown ex-ante, or incomplete in such platforms. Therefore, platform providers are required to carefully manage the ecosystem surrounding their platform through not only applying price-setting, but by utilizing a wide range of strategic instruments such as investments, technology rules, information dissemination, visions/roadmaps, and contracting choices (Boudreau & Hagiu, 2008; Boudreau, 2010; Gawer & Cusumano, 2012; Iansiti & Lakhani, 2009). For example, Boudreau (2010)'s study shows that granting access to the platform rather than giving up control was the most effective strategy in the context of handheld computing systems. It seems maintaining some degree of control provides the platform owner with more tools when building and sustaining the ecosystem.

There are basically three different ways of organizing the platform: the integrator model, the product model, and the two-sided market model (Boudreau & Lakhani, 2009). These

¹ Other factors than variety that are important in users selection of platform include quality and expected future relevance of platform (Zhu & Iansiti, 2012).

three models differ in who sells to whom and the level of control the platform owner has on the external contributing users (Boudreau & Lakhani, 2009). In the integrator business model the platform owner has the highest degree of control as the company incorporates outside contributions and sells the final product to the customers (Boudreau & Lakhani, 2009). In product platform, the platform owner has less control, as the external contributors build on top of a product platform and also sell the resulting product directly to the end customers (Boudreau & Lakhani, 2009). The least control is in the two-sided markets model. Here the two (often multiple) sides are allowed to interact with each other as long as they affiliate with the platform, and the task of the platform owner is to capture and sell these interactions between the different agents (Boudreau & Lakhani, 2009; Eisenmann et al., 2006). Note that all three models are viable, but they require different approaches to sustain the model.

It is important to distinguish these types of platform business models from what Gawer and Cusumano (2012) label internal platforms. The internal platform model, sometimes described as modular design, allow firms to save in fixed costs, and gain efficiency in product development through the reuse of common elements, but do not allow outsiders to contribute to the platform with complementary solutions, hence they do not have the potential of creating network effects (Gawer & Cusumano, 2012). Furthermore, where value in a traditional value chain (including the internal platform model) moves from left to right: with the costs to the left and revenue to the right (Eisenmann et al., 2006). Value moves fundamentally different in a platform model. Here the platform owner occur costs from each side of the platform, and might as well generate revenue from all the participating sides. Hence value does not move linear, but is created in the complex system constituting the ecosystem. And as became evident in previous part 2.1.1 User Innovation, the nature of the contributions undertaken by the users are numerous. In fact, in a platform business model where the company is continuously and systematically leveraging on contributions from the users, the users might interfere in activities at all stages of the value chain (Hienerth et al., 2011). Hienerth et al. (2011) refer to this as a user-centric business

model. The user-centered business model is elaborated subsequently along with barriers and opportunities for business model innovation.

2.1.3 Business models: The user-centered business model

Although little consensus on what exactly constitutes a business model appears to be found within the academic literature, research seems to agree that the business model construction represents a new and important subject of innovation (Zott, Amit, & Massa, 2011). Chesbrough (2010) even indicates its likely that a mediocre technology commercialized with a great business model will be more valuable than the reverse example of a great technology commercialized with a mediocre business model. This paper follows Teece (2010)'s definition of a business model as the logic of how a firm creates and delivers value to its customers, and is able to capture some of this value by converting it into profit. In line with this definition, Johnson, Christensen & Kagermann (2008) identify four interlocking elements of a business model: the customer value proposition, the profit formula, the key resources and the key processes. These elements have to be coherent to form a successful business model (Teece, 2010). This is a more abstract level of business model compared to business models as choices (Casadesus-Masanel & Ricart, 2010) or the activity system perspective (Zott & Amit, 2010), which both offers a higher descriptive accuracy (Massa & Tucci, forthcoming).

In a traditional producer-centered business model, the company is exclusively being recognized as responsible for creating and delivering value to the customers (Hienerth et al., 2011). Furthermore, the company fully controls the management and design of the key elements of the model through internal integration (Hienerth et al., 2011). However, when companies continuously are leveraging on supply of contributions from their users, the companies are no longer exclusively responsible for creating and delivering value. By applying the four key elements of a business model mentioned above, Hienerth et al. (2011) show how leveraging on contributions from users vastly influences the business model: Firstly, the users become a key resource which must be managed differently from employees as the users do not have a formal contract but self-select what they want to

work on. Secondly, key processes must be changed to allow contributions from the users. Thirdly, the profit formula is influenced through, for example, changes in the cost structure. Finally, the value proposition is changed as the users not only derive value from the utility of a certain product, but also through the effects associated with the opportunity to engage with and contribute to the firm and/or the other users. These effects include firm and peer recognition, learning, and enjoyment. Companies are unlikely to continuously and systematically leverage on contributions from their users if they do not discharge the traditional producer oriented business model and implement a more user-oriented business model (Hienerth et al., 2011).

To change the business model does not come without challenges. First of all business model innovation is likely to require significant experimentation (McGrath, 2010). The successful business model is often an iterative trial and error process that hardly can be planned nor anticipated ex-ante (McGrath, 2010). This makes business model innovation² challenging for established firms as potential mistakes in the process might influence the existing business model negatively (Hienerth et al., 2011). Acknowledging the requirement for experimentation in the process of business model innovation, Chesbrough (2010), broadly identifies two related challenges for business model innovation. In the first type of challenges the company identifies the requirement for a new business model, but implementing the new business model proves challenging as it is likely to conflict with the structural configurations of the existing business model. These configurations include the rules, norms, and metrics of the existing model (Johnson et al., 2008). For example, the gross margin might be significant lower in the new model, the end customer might differ, and the new business model might require other distributions channels (Chesbrough, 2010). These types of challenges are inspired by Christensen (1997)'s concept of the innovator's dilemma. User innovation research has often indicated that a major challenge for firms to implement a more open and user-oriented business model is internal

² In line with Massa and Tucci (forthcoming), this paper refers to business model innovation as the activity of designing a new business model. This activity includes three steps: creating, implementing and validating the new business model.

resistance from employees who fear that leveraging on external contributions from users might make them obsolete and eventually result in them losing their job (Huston & Sakkab, 2006). The other broad type of challenge for business model innovation identified by Chesbrough (2010) relates to cognitive barriers of companies. As companies establish successful business models, these business models subsequently influence what information is perceived important and the companies will seek information confirming their logic and ignore conflicting information (Chesbrough, 2010; Chesbrough & Rosenbloom, 2002). This dominant logic aids companies guide decision making, but complying to the cognitive logic of the existing business model too strictly can lead the firm to preclude new business models that follow a different logic and not recognize the need for experimenting with existing model (Chesbrough, 2010). Another challenge mentioned by Massa and Tucci (forthcoming) is the lack of resources. This challenge, they argue, is especially significant for startups who do not have a working business model and therefore are in the process of business model design, as opposed to established companies who have a working business model but want to change it and therefore are in the process of business model reconfiguration.

Prior research has investigated how companies can change their business model from a producer-centered business model to a user-centered business model. For example, the work of Hienerth et al. (2011) cleverly explores the success factors for attracting and engaging users in the core business processes, as well as effective strategies to overcome internal resistance companies might experience when pursuing user-centered business models. Similarly, Keinz et al. (2012), identify main challenges for organizational design and offer various recommendations for companies who continuously leverages on a large group of users. Langner and Seidel (2013) empirically explore the practices companies can apply to sustain and increase the flow of external ideas through building a joint firm-community identity.

However, no study has systematically investigated how it influences business model innovation when a company successfully has built a user-centered business model where it continuously leverages on contributions from its users. This is a valuable research agenda as business model literature agrees on the importance for firms to be able to change their business model (Chesbrough, 2010; Teece, 2010; Johnson et al., 2008; Wirtz, Schilke, & Ullrich, 2010; McGrath, 2010). For example, Teece (2010) argues it is likely that even successful business models will at some point need to be changed or abandoned due to changes in the business environment, such as, changing markets, technologies and legal structures dictate. Johnson et al. (2008), identify five different circumstances in which firms need to reinvent their business model. Massa and Tucci (forthcoming) organize these circumstances into three opportunities that business model innovation can help companies exploit: a) enhancing or developing a new customer value proposition for existing customers, b) reaching new customer segments that have traditionally been overlooked by the current value proposition, or c) by entering new industries or terrains.

It is ambiguous how users' dual role, as supply of contributions and demand of solutions, influence business model innovation. On one hand, the users become an additional asset that might negatively influence business model innovation if they perceive the new business model to conflict with the existing business model. On the other hand, by deliberately leveraging on external contributions from users across all stages of the value chain, the company is likely to increase its knowledge base, thus potentially decreasing cognitive barriers associated with business model innovation. For example, the users might help the company with sensing environmental changes and new opportunities (such as new technology or new markets). Thus users are likely to influence both barriers (cognitive and structural) as well as opportunities (enhanced value proposition, new customer segments, or new terrains) for business model innovation. As mentioned in the introduction, there are an increasing number of examples of companies where the users, in various ways, have influenced the company to apply a radically new business model with high success. This indicates that users might not only influence company initiated business

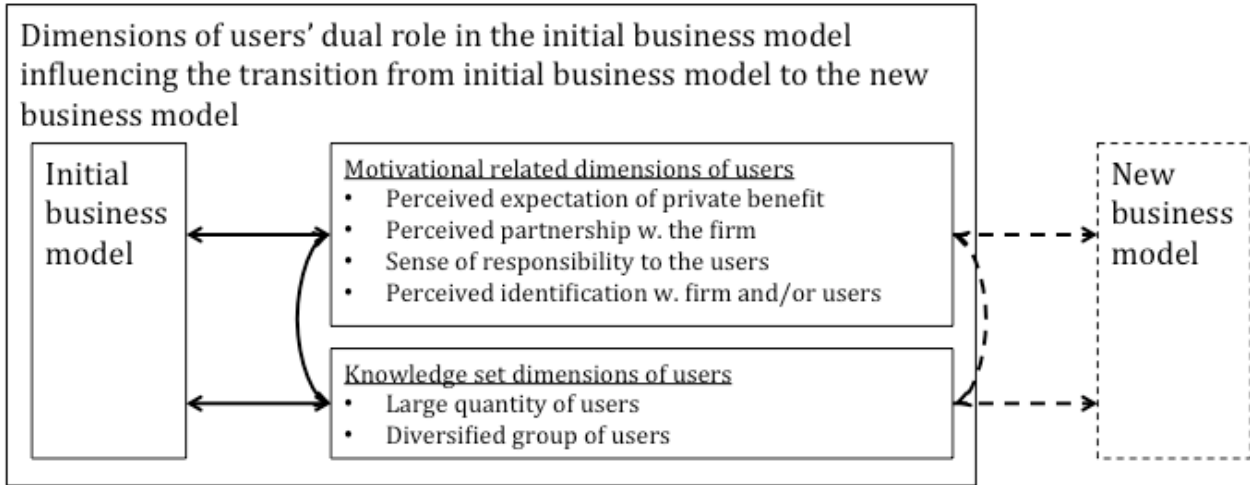
model innovation, but also might serve as some sort of push or pull for new business models.

2.2 Conceptual framework

To explore the influence of users' dual role on business model innovation a conceptual framework has been developed by the author. This conceptual framework draws on extant literature mainly within user innovation. Whereas extant literature provides a helpful backdrop for understanding how business model innovation might be influenced by users dual role, each stream only address some but not all aspects of the phenomenon. The conceptual framework is therefore developed to provide managerial guidance and directions for further research related to how users' dual role influence business model innovation, as well as to guide the researcher in collecting and analysing the empirical data.

The identified dimensions influencing business model innovation relates to the characteristics of the crowd and can be divided into two main categories: dimensions related to the motivation of the users and dimensions related to the knowledge set of the users. This categorization has been adopted in different ways by various user innovation studies (e.g. Chatterji & Fabrizio, 2012; Lett, 2007; Frey, Lüthje, & Haag, 2011; Afuah & Tucci, 2012). Each category of dimensions will be elaborated in detail subsequently and Figure 1 visualizes the framework. Note that the knowledge and motivational dimensions are likely to influence each other (Frey et al., 2011), but are discussed separately in order to highlight the significance of each dimension.

Figure 1: Conceptual framework



Source: developed by the author

2.2.1 Motivational dimensions

The first category of dimensions to be included in the framework is the motivational dimensions of the users. Literature within user innovation has often looked at the motivation of the users to explain why users innovate and subsequently contribute the innovation freely to the firm or to the community (e.g. von Hippel, 2005; Shah, 2006; von Krogh & von Hippel, 2006; Jeppesen & Frederiksen, 2006; Nambisan & Baron, 2010). This is an important research agenda, as systematically leveraging on contributions from users is distinctively different from an internal process. Unlike employees, users are not employed and often not paid by the platform owner, making the firms' room for managing the users limited, as the firm relies on the ability to continuously attract the self-interest of the contributing users³. Furthermore, as these users are not formally associated with the platform owner, they are allowed to contribute with whatever they perceive most interesting, and not necessarily with what the platform owner considers the most relevant for the firm (Hienerth et al., 2011). Where firms seek to improve their profitability, users

³ Note that recent literature within open and user innovation highlight that the crowd are increasingly becoming a fixed institution available on demand through various online crowdsourcing platforms (Boudreau & Lakhani, 2013). This role of the crowd is often driven through prize contests and although it might be done systematically, it rarely develops into continuous contributions. Therefore, this type of user role is related to this paper, but outside the core focus.

pursue the pleasure of using the solution and achieving benefits associated with contributing (Parmentier & Mangematin, 2013). The different, non-aligned goals of firms and users imply that if a platform owner were to successfully change its current business model, while maintaining the contribution from self-selecting users, the users would have to perceive the new business model as interesting for them to consume and/or contribute to. Hence the motivational dimensions of the users in a platform-based business model are expected to influence business model innovation, and are therefore also relevant to explore in the context of this study.

Research on motivation has shown how users are often motivated by intrinsic desires rather than extrinsically incentives (Shah, 2006; Lakhani & Wolf, 2003; Jeppesen & Frederiksen, 2006). Furthermore, research has shown how motivation seems to be changing over time (Shah, 2006; Bagozzi & Dholakia, 2006) and, related, how the motivation of unpaid contributors is influenced by growth of platform and adoption of commercially motivated contributors (Boudreau & Jeppesen, 2012; Miric, 2013; Zhang & Zhu, 2011). Also each user's decision to contribute is found to be a cause of multiple motivational drivers rather than one single reason (Leimeister et al., 2009; Nambisan & Baron, 2010). These motivations are found not to be independent, but relate to each other in complex ways (Roberts, Hann, & Slaughter, 2006) and are influenced by the behaviour of companies and the other users (Miric, 2013). Finally, different types of customer contributions are shown to be influenced by different motivations, depending on whether the contribution is for the community (e.g. help services) or firm (e.g. product ideation) (Nambisan & Baron, 2010.).

No prior research has systematically investigated how the motivational dimensions of the users might influence business model innovation, therefore this thesis applies a range of studies in order to deduce the potential influence of users' motivations on business model innovation. Following Nambisan and Baron (2010) four theoretical perspectives are relevant for explaining the willingness of users to contribute: social exchange theory (the

expectation of private benefits), social identity theory (perceived identification with firm and/or users), social capital theory (sense of responsibility to users), and involvement (sense of partnership with firm). All four dimensions are likely to influence business model innovation in various ways and will each be elaborated in-depth subsequently.

2.2.1.1 Perceived expectation of private benefits

This dimension leverage on social exchange theory and suggests that users employ cost-benefit analysis of their social relationships and contribute to a firm or a community of users when they perceive the benefits to exceed the costs (Nambisan & Baron, 2010). One obvious benefit for contributing is pecuniary rewards, which is a widely applied incentive in, for example, open innovation contests (Bullinger et al., 2010). However, there are many examples of users contributing to firms without the promise of pecuniary rewards (Shah, 2006; von Hippel, 2005). This has led researchers following the logic of the social exchange theory to highlight other perceived benefits that are available for contributors but not free-riders (c.f. von Hippel & von Krogh, 2003). These private benefits include: private learning, enjoyment, and peer and firm recognition (von Hippel & von Krogh, 2003; Lakhani & Wolf, 2003; Shah, 2006; Jeppesen & Frederiksen, 2006; Leimeister et al., 2009). These benefits can then in turn translate into, for example, career advancements (Boudreau, Lacetera, & Lakhani, 2011). Furthermore, von Hippel (2005) suggests that contributors might benefit from freely diffusing their inventions/innovations due to improvements made by others and positive network effects due to wider diffusion of contribution. Also relevant for this dimension is the emerging practice among platforms to invite certain users to offline events and share with them extensive information, these practices have been studied in more recent research (Hienerth et al., 2011; Langner & Seidel, 2013; Antorini et al., 2012). Finally, a recent study by Franke, Keinz and Klausberger (2012) shows that the participants of an ideation competition did not make their decision solely based on whether they perceived direct compensation (IPR, money, and reputation) to be good, but rather their decision to participate depended on whether they perceived the outcome to be fairly distributed.

Regarding the costs side of the decision to contribute, users might freely diffuse their innovations to firms or other users in order to avoid private costs such as: lack of capabilities for manufacturing their invention, the cost of pursuing the innovation (e.g. IP rights and time), and that it might be difficult to hide the innovation anyway (von Hippel, 2005; Baldwin & von Hippel, 2011). These costs all explain why users might diffuse inventions to the company or the community, rather than pursuing the invention themselves. Thus, these costs might explain some sort of community pull for new offerings, or potentially new business models. Another type of costs which is likely to influence business model innovation is perceived switching costs. Lettl (2007) argues that one potential barrier for involving users in the innovation process is the users' perceived switching costs and their fear of existing knowledge becoming obsolete. Thus, switching costs might indicate some sort of path dependency in business model innovation, restricting the potential new models a company can apply to those with low perceived switching costs for the users. However, it should be noted that especially lead user literature has shown that collaborating with users can be a commercially attractive way of generating new and radical products for companies (Lilien et al., 2002; Lettl, 2007).

Following the logic of this dimension, business model innovation is influenced by whether users perceive it to be beneficial for themselves if firms were to change their business model. Furthermore, it is likely that the benefits of the new business model should be perceived fairly distributed.

2.2.1.2 Perceived partnership with the firm

Various studies have shown that users are more likely to contribute to firms if they feel valued as a partner (Nambisan & Baron, 2010; Langner & Seidel, 2013; Hienert et al., 2011). The perceived partnership with the firm is articulated through the users understanding themselves as a part of the extended organization or as partial employees, and it is often cultivated through disclosure of information about goals, processes, and outcomes with the users (Nambisan & Baron, 2010). Langner and Seidel (2013) identify eight practices firms can employ to nurture an innovation partnership with communities

including: hiring from community, meet-ups, having employees to engage with community and in general being responsive to the community. Common for these practices are that they increase the blurring of boundaries between firm and community. Furthermore, within new product development, Fuchs and Schreier (2011) find that customer empowerment strategies lead to increased level of perceived customer orientation, more favourable corporate attitudes, and stronger behavioural intentions among the customers from the periphery (i.e. the non-participating mass). Following these findings it might be expected that practices for involving users not only influence the motivation of those users involved with the firm, but also the broader group of users⁴.

It is likely that users' perceived partnership with the firm influence business model innovation. For example, if users perceive a high level of partnership with the firm it is likely they also would expect to be included into the process of business model innovation, and would react negatively if the firm were to change its business model without consulting the contributing users. Langner and Seidel (2013) hint empirical support for these expectations through observing changes in two cases of user-centered business models: Threadless and Local Motors. Furthermore, if the users perceive they are involved in the process of business model innovation, it is more likely they will perceive the new business model more positively.

2.2.1.3 Sense of responsibility to users

Leveraging on social capital theories this dimension emphasizes that users' affective relationship with other users enhances their commitment to contribute to the community (Nambisan & Baron, 2010). This dimension is mainly important for user contributions directed at the other users, such as helplines (Nambisan & Baron, 2010). In their study of open source software participants, Lakhani and Wolf (2003), find that 28% of the respondents in their web-based survey indicate obligation to the community as one of the

⁴ Fuchs, Schreier, Prandelli, and Dahl (2013) find a conceptual boundary to the positive effects of customer empowerment in the luxury fashion industry. In their experiment, customers perceived user-designed luxury products to be lower quality, and fail to signal high status.

top three reasons for contributing. Also within the context of open source software, Shah (2006) finds similar reasons for a majority of the contributions. However, she also finds that the participants whose contributions were motivated by reciprocity, obligation or desire to conform to the norms of the community generally occurred over a short time span and rarely developed to outside the area of the initial contribution. This indicates that the sense of responsibility to users might be an important motivational dimension driving initial contributions to the community, but it is not sufficient for a firm who pursue to sustain the contributions over a longer time period.

Where it is likely that users' sense of responsibility to the other users might be influenced by changes in the community, it is less obvious how this motivational dimension should influence business model innovation, unless the changes of the business model were to significantly influence the norms and relationships of the community.

2.2.1.4 Perceived identification with firm and/or users

Perceived identification with the firm and/or users is based on social identity theories emphasizing how social behaviour is shaped by the individual's perception of belonging to some human aggregate (Nambisan & Baron, 2010). The identification with the firm and/or the other users is shaped over time (Bagozzi & Dholakia, 2006). Often initial participation is driven by a specific need (Shah, 2006), but as the contributors interact with the firm and the other users, identification is likely to get stronger (Bagozzi & Dholakia, 2006). Parmentier and Mangematin (2013) argue that firm and community identity are two separate entities, as they have different goals. Firms aim at appropriating rents, while users seek to increase use benefit (including the motivational effects related to using/contributing). To manage these two identity entities, firms attempt at sharing identifying elements, building common values, and sharing values (Parmentier & Mangematin, 2013).

Building a joint firm-community through shared identity is found to be a successful way for companies with user-centered business models to sustain activity over time (Langner &

Seidel, 2013). This can be supported through prior research, which has found that perceived identification with firm and/or users moderate the effect of other motivational dimensions (Nambisan & Baron, 2010). This implies that the higher level of identification, the more positively will the individual perceive the expectations of private benefits, the sense of responsibility to the users, and the perceived partnership with the firm (Nambisan & Baron, 2010). Franke et al. (2012) find similar support for the moderating effect of identification in their experimental study of an ideation contest: where participants in such ideation contests in general want a fair deal, the participants perception of fairness is influenced by ex-ante identification with the crowdsourcing organizer. The higher level of initial identification, the more fair the participants perceive the crowdsourcing system, thus the more likely the participant is to contribute to the ideation contest. Furthermore, Franke et al. (2012) find that the future identification with the firm is shaped by the perceived fairness of the crowdsourcing system.

Following this logic, perceived identification with firm is likely to positively influence business model innovation, as the users are likely to perceive the changes more favourable. Furthermore, if the users perceive the business model change as fair, they are in turn likely to enhance their identification with the firm.

However, there are also potential downsides to having a shared firm-community identity. Fosfuri, Giarratana, and Roca (2011) argue that when a company aims to build a shared identity with their users, they must exclude a range of strategic tools that conflict with the values and symbols of the shared identity. For example, (significant) increases in prices are likely to contradict the shared identity. Furthermore, the shared identity is likely to limit potential partners and joint ventures with other firms, if these firms do not share the same values. Parmentier and Mangematin (2013) highlight another potential downside to having a strong shared identity: it might result in homogeneity of the offering, thus potentially reducing creativity and the community's pull effect for new offerings.

Thus social identification of the users with the firm and/or users might influence business model innovation both positively and negatively in various ways: by moderating the effect of other motivational dimensions and by influencing the solution space for business model innovation.

2.2.2 Knowledge set dimensions

The second category of dimensions to be included explores how the knowledge characteristics of the users influence business model innovation. No literature has previously investigated this, but literature within user innovation has both empirical and conceptual identified collaboration with external solvers, such as users, as one way to gain valuable solutions to problems from outside the agent's dominant field of expertise (von Hippel, 2005; Afuah & Tucci, 2012; Poetz & Schreier, 2012; Franke, Poetz, & Schreier, forthcoming; Jeppesen & Lakhani, 2010). The literature often leverage on the argumentation that when a boundedly rational agent is searching for a solution to a problem, the agent is only able to make intelligent searches where its routines, cognitive frame, and absorptive capacity can guide the assessment of alternatives and their consequences, and thus the agent focus on alternatives within or in close proximity to their dominant field of expertise (Cohen & Levinthal, 1990; Cyert & March, 1963). This phenomenon is called local search bias (at organizational level) or functional fixedness (at individual level) and becomes a significant problem when the optimal solution requires distant search, that is when the optimal solution is not located within or in close proximity to the agent's dominant field of expertise (Cyert & March, 1963; Afuah & Tucci, 2012). Afuah and Tucci (2012), argue that under certain conditions crowdsourcing transforms distant search into local search, as some of the solvers might provide solutions that are distant to the agent, but local to the solvers. The focal company is then likely to benefit from crowdsourcing if at least one of the self-selecting solvers is located within close proximity to the optimal solution, that is, if the solver has solution know-how (Afuah & Tucci, 2012).

Whether at least one user persists the problem-solving know-how relevant for the company depends on the characteristics of the problem, the characteristics of knowledge required for the solution, and on the characteristics of the crowd (Afuah & Tucci, 2012). In this paper the characteristics of the problem relates to business model innovation. Business model literature has emphasized that it is unlikely that a successful business model can be anticipated ex-ante, but rather requires experimentation and testing (McGrath, 2010; Chesbrough, 2010). This indicates that “the problem of business model innovation” is complex and that it is uncertain what characteristics of knowledge is required “to solve the problem”. Thus it is likely that the integration of self-selecting users might positively influence business model innovation as the company can gain access to a wider range of solutions. In this way users might influence business model innovation by decreasing the cognitive barriers for business model innovation identified by Chesbrough (2010).

The wider range of solutions is likely to depend on two dimensions: the quantity and diversity of the users. The larger scale of users with more diverse skills, the more distant and diverse knowledge will be integrated into the company in a user-centered business model. However, the knowledge set dimensions might also influence business model innovation negatively. For example, it requires an effort and investment to leverage on external users, and furthermore coherence might be lost when multiple actors with diverse skills and motivations try to innovate simultaneously (Boudreau, 2010).

The two dimensions of quantity and diversity are closely related, but are shortly emphasized separately subsequently through prior research.

2.2.2.1 Large quantity of users

This dimension relates to the quantity of the users. In a study analysing 9,661 software contests from Topcoder, Boudreau et al. (2011) find that increasing the number of participants increases the chance of at least one participant submitting an extreme value

solution in high uncertainty problems⁵. In an experimental study of idea generation of new smartphone applications through crowdsourcing, Franke, Lettl, Roiser, and Tuertscher (2013), find that randomness exceed 22 deterministic factors by over 500% in explaining what causes the best solution. Their study has one major consequence: rather than designing the crowdsourcing competition to attract certain types of participants, firms should design the competition to attract as large a number of participants as possible due to the law of large numbers. Boudreau (2012) also find a positive effect of a large quantity of users, as adding contributors to a software platform is found to increase the variety of offered software titles. This effect he suggests is related to the increase in heterogeneity of the contributors.

2.2.2.2 Diversified group of users

The second knowledge dimension included in the framework relates to the heterogeneity of the users. In their study of the winners in broadcast-based science problem solving, Jeppesen and Lakhani (2010), find that increased distance between the problem-solvers' field of expertise and the domain of the problem was positively related to problem-solving success. Specifically they investigate two types of distance, social and technical marginality, and they find that both types of marginality increase the likelihood that a (self-selecting) solver will submit a winning solution. Thus companies are likely to benefit from allowing and engaging non-obvious solvers, at least in this specific context. In a real world comparison of ideas generated internally and ideas generated through crowdsourcing, Poetz and Schreier (2012), find that the top ideas were generated through the crowd of users. The ideas provided by the users scored significantly higher on novelty and customer benefit than the internally generated ideas (Poetz & Schreier, 2012). This supports the suggestion that companies who continuously leverage on the contributions from their users can benefit from having a diversified crowd of users with various fields of expertise and needs. Although Franke et al., (2013), find randomness to significantly exceed deterministic factors in explaining the successful submission of problem solution, other

⁵ It is worth mentioning that for less uncertain problems adding more participants was found to reduce the incentives of all participants (Boudreau et al., 2011).

literature within user innovation has empirically found that companies can benefit from integrating lead users (Lilien et al., 2002) and problem solvers from analogous markets (Franke et al., forthcoming). It is thus expected that companies can benefit from both leveraging on ideas from non-obvious participants and by collaborating with users most likely to possess optimal knowledge.

The following section presents the method and case description.

3. Method and case description

In the previous section it is indicated that users' dual role is likely to influence both barriers and opportunities of business model innovation in various ways. However, how the users influence business model innovation in these user-centered business models has not systematically been addressed in prior research. To fill the research gap, this research used a theory-building approach following Huberman and Miles (2002), allowing for an understanding of the dynamics of business model innovation in user-centered business models. Similar to Miles and Huberman (1994) the author subscribes to transcendental realism research philosophy: where a reality exists with certain rules, but it is not given that the reality and these rules are observable for humans. However, in accordance with Miles and Huberman (1994) and Saunders et al. (2006) the author does not solely transcribe to one research philosophy in answering the research question. Saunders et al. (2006) call this the pragmatic position and it allows the author to take a combination of positions in the research, including what Saunders et al. (2006) label critical realism and interpretivism. The methodological choices made during the research are elaborated in detail in this part. First, the decision behind the case study design is outlined. Following this, the selection of the case company Threadless is reasoned. Then the data collection method is presented. Before describing the generalizability and validity of the research, the data reduction method is described. Finally this section ends with a presentation of the case company, Threadless, including a description of users' dual role at the company, and an overview of their experimentation with business model innovation. The methodological limitations are discussed in detail in part 5.3. Limitations.

3.1 Research approach and research strategy

The explorative case study approach was chosen as it is applicable to the nature of the research question and in cases where there is a lack of specific theory and empirical evidence in the research field (Yin, 2009; Huberman & Miles, 2002). The case study design is especially appropriate when investigating contemporary and complex phenomena (Yin, 2009) such as how users' dual role influences business model innovation. The theory

building case study approach is flexible and allows the research the freedom to make adjustments during the data collection process (Huberman & Miles, 2002). Thus, it is a suitable approach to gain the required in-depth understanding of the phenomenon studied in this research. According to Huberman and Miles (2002, p29) the case study approach is good for theory building as the possibility of “constant juxtaposition of conflicting realities tends to “unfreeze” thinking, and so the process has the potential to generate theory with less researcher bias than theory built from incremental studies or armchair, axiomatic deduction.”

Due to limited resources the researcher decided to conduct a single case study as it is a timely process to gain in-depth understanding of the case. This decision obviously influence the generalizability and validity of the findings because the study can not contrast multiple cases, but the researcher decided that the limited resources were better utilized by gaining a sufficient and deep understanding of at least one case, including gaining an understanding of the different stakeholders viewpoints. The choice of the single explorative case study approach determines the other methodological choices made in this research, where the researcher has been aware of allowing for inductive findings to emerge from the exploration of the case. Furthermore, the choice of the explorative case study determines the generalizability and validity of the study as will be elaborated later.

It should be noted that the research process was not linear, but rather was an iterative process with feedback between data collection and data analysis. Thus, the structure presented here is an attempt to present the research in structured way, rather than it is an attempt of imitating the research process.

3.1.1 Selecting the case

To explore the research question it was necessary to have a case that would fulfil certain criteria elaborated in this part. In the selection process of the case two main choices were made: the definition of the population and the selection of the case within this population.

First the population was defined. The researcher decided to focus on digital platforms as the context. Wirtz et al. (2010) suggest how the Internet is a high volatility environment, which is found to require frequent business model innovation. Similarly, Amiz and Zott (2001) show how the relevance of business model innovation seems to be fuelled by advances in communication and information technologies, namely the Internet, which has allowed new ways to create and deliver value. These developments are found to be an important driver for the implementation of user-centered business models because they facilitate large-scale exchanges of data between companies and their users, at a very low cost (Hienerth et al., 2011). Thereby lowering the effort and cost for both the users and the companies to engage with each other (Leimeister et al., 2009). Therefore, digital platforms are found to be a context where users have a dual role, and where the company have undergone some changes to its business model.

Regarding the selection of the case, within the defined population, various criteria were defined. First of all the users had to occupy a dual role where they are both supplying contributions and demanding solutions, and the company should systematically and continuously leverage on these users, similar to the ecosystem described by Keinz et al. (2012) and the user-centered business model described by Hienerth et al. (2011). Secondly, the company should have experimented with the business model in the past and preferably recently, as the explorative case study approach is best suited for exploration of contemporary events (Yin, 2009), allowing for learning from actual events rather than speculation of what might happen. Finally, the company should be willing to contribute to the research and preferably provide access to archival data. Eventually Threadless was selected as the case. Threadless has previously been covered within user innovation literature on several occasions (Langner & Seidel, 2013; Lakhani & Kanji, 2008; Ogawa & Piller, 2006) and the company was found to apply to all of the above criteria. Shortly described, Threadless is a community based design company selling physical products with graphic design made by the users. The case is further described and justified in part 3.2. Case description and the limitations of the case are elaborated in part 5.3.

3.1.2 Data collection

To strengthen the substantiation of the findings, multiple data collection methods were applied, allowing for triangulation (Huberman & Miles, 2002). Triangulation refers to the use of overlapping research approaches to data collection (Yin, 2009). When the collected overlapping data converge, they increase the confidence in the findings and strengthen the reliability of the study (Yin, 2009). The research mainly uses qualitative data collected from a) internally conducted interviews, b) archival data gathered from the extensive online Threadless forum and the company blog, and c) publicly available non-edited interviews with top management at Threadless.

In connection with this research one semi-structured open-ended interview was conducted with the CEO and co-founder of Threadless, Jake Nickell. Initially more interviews were planned, but unfortunately these interviews were never actualized. The semi-structured interview format was chosen as it allows the interviewee to express himself freely to a set of topics defined by the interviewer (Bryman & Bell, 2003). Compared to the structured interview, the semi-structured interview allows for the interviewer to discuss the answers of the interviewee more in depth (Bryman & Bell, 2003). In this way the interviewer have the possibility to gain insights from the interviewee outside the context of the predefined questions. In the semi-structured interview conducted in connection with this research, the interview guideline was constructed with very broad opening questions reflecting the research question, allowing for inductive learning from the field. Furthermore, the interview guideline consisted of several questions deduced from the conceptual framework presented in the previous section. These questions were only asked if the interviewee did not touch upon the topic. The interviewee was chosen based on relevance and availability and the interview was conducted through Skype. One day after the interview was conducted the full transcript was sent to the interviewee allowing him to review his answers. See Appendix 3 for the interview guideline.

In addition to the semi-structured interviews, two written interviews were conducted. These were originally intended to be Skype interviews, but due to various reasons they had

to be conducted in written format. Table 1 summarizes the interviews conducted by the researcher for this study.

Table 1: Interviews conducted by the researcher

Interviewee	Role at Threadless	Interview style	Format/media	Date
Jake Nickell	CEO	Semi-structured	Skype	Aug-13
Crystal Greig	User - scorer	Structured	Written	Sep-13
Budi Satria Kwan	User - artists	Structured	Written	Sep-13

In addition to the interviews conducted specifically for this research, prior publicly available interviews with top management at Threadless were identified and transcribed. Only interviews that were not edited were used for this research to ensure that the data was not misrepresented. Furthermore, interviews that were considered too short or not connected to this research were excluded. In total eight interviews were identified and subsequently transcribed (see Table 2). The interviews are mainly from within the last three years and involve three different individuals from the top management of Threadless. These interviews help triangulation, provide the study with a sense of duration and reduce key informant bias. Appendix 4 provides a short background description of employees and users.

Table 2: Other relevant interviews

Interviewee(s)	Position	Date	Main topic	Length
Jeffrey Kalmikoff	CCO	Nov-07	Community-centered design	23:18
J. Nickell & J. Kalmikoff	CSO & CCO	Apr-09	Being community based	30:14
Jake Nickell	CSO	Oct-10	Threadless evolution	20:18
Jake Nickell	CSO	Nov-10	Threadless evolution	59:24
Tom Ryan	CEO	Jul-11	Community and partnerships	15:12
Tom Ryan	CEO	Aug-11	Future of Threadless	23:09
Jake Nickell	CSO	Jun-12	Innovation at Threadless	33:08
Jake Nickell	CEO	Jun-13	Community and partnerships	22:32

The archival data applied in this research is collected through a thoroughly desk research of the Threadless hosted forum, <http://www.threadless.com/forum>, and the company blog,

<http://blog.threadless.com/>. Threadless has used these media to engage with their users throughout the company's history. The researcher browsed all posts written on the company blog from the period between January 2006 and October 2013 for relevant announcements and discussions related to the research topic. The company hosted online forum was monitored on a daily basis for approximately 40 minutes a day from August 2013 until October 2013. Furthermore, through browsing key users' and employees' posting history on the forum, several relevant threads were identified. Appendix 1 provides an overview of all the relevant blog posts and forum threads identified by the researcher. Besides being valuable for data triangulation, the forum and the blog provided the researcher with a strong understanding of the evolution of Threadless as well as an understanding of specific Threadless phrases and symbols.

Finally various interviews and articles with established media companies were explored to further strengthening the findings. Appendix 2 provides a list of these interviews and articles. However, it should be noted that these are almost exclusively used for data triangulation and are rarely directly applied in this paper.

The qualitative data may directly suggest theory and is good at understanding the rationale underlying relationships (Huberman & Miles, 2002), however the findings of this research would have benefited from having quantitative data as well. This will be elaborated further in part 5.3. Limitations.

3.1.3 Data reduction

Prior to initiating the data collection, related research was investigated and the author developed the conceptual framework. The conceptual framework was deduced to direct the exploration, allowing to measure the dimensions more accurately, and potentially triangulate the dimensions when support between empirical data and prior research (Huberman & Miles, 2002). Through the data collection, supporting and conflicting data were attributed to these dimensions through codes. The coding was done manual through various steps. First the data source was identified and numbered in an Excel sheet. Then the data source was stored electronically on the computer making it possible to search

within all of the data sources for certain words. Subsequently the data sources were printed and coded by hand using the dimensions as categories. The different units of data relating to the categories were group in a Microsoft Word document. When grouping the data units within the categories, the researcher was continuously exploring for supporting and conflicting evidence, which allowed for new patterns to emerge. For example, it became clear that little consensus is found within the group of users, thus when Threadless are experimenting with new business models they need to consider many different opinions from their users. Before including the unit of data in the findings, the researcher double-checked the data from their original context to ensure proper representation; this resulted in the exclusion of some data. Furthermore, no data was included without support from other data sources. In section 4 Findings, the researcher mainly presents the data through quotes to allow the reader to make his/her own interpretation of the data. During the research there was found relevance for all the dimensions regarding business model innovation, with the exception of sense of social responsibility. However, through the data coding process the researcher discovered that this dimension, sense of social responsibility, not only reflects the relationship with other users, but also appears to be evident in the relationship between user and employee. This is an example of the inductive side of the study.

3.1.4 Generalizability and validity

With the chosen research approach this study does not aim to establish generalizability in traditional sense. Rather than establishing results that are easily transferable and valid for other contexts, this research aim to gain an in-depth understanding of the complex and contemporary phenomenon of how users' dual role influence business model innovation. Through the case study of Threadless, this research has traded off concerns regarding external validity against the opportunity to explore the dynamics underlying this understudied phenomenon. However, it should be noted that through the method of mixing inductive and deductive approaches, the findings are stronger substantiated as both prior literature and data collected through the research are used for supporting the findings.

Furthermore, through data triangulation and data collection methods the researcher has increased construct validity and reliability.

3.2 Threadless: Case description

3.2.1 Threadless: Background

Starting in 2000, Threadless originated as a company leveraging on its users for design and selection of new T-shirt prints, which were sold solely through the main website, www.threadless.com. Threadless started as a side project by Jake Nickell and Jacob DeHart, after Nickell had participated in a T-shirt design contest hosted by New Media Underground festival on an online design forum called Dreamless where he was very active at that time. The design submitted by Nickell won the competition, but he never received or saw the print on an actual T-shirt. While Nickell was unsatisfied by this, he was enlightened by the whole concept of the design competition: the forum members had created great designs and provided useful feedback to each other. Therefore Nickell teamed up with DeHart and together they made their own design contest within the Dreamless forum called Threadless. They asked community members to submit designs and select their favourites among the submitted designs, and promised the winners two free shirts and to reinvest any profit into future contests. Of the approximately 100 submitted designs, Nickell and DeHart printed a dozen of copies of five T-shirts. The T-shirts sold out quickly with an asking price of \$12 each. Following the success, Nickell and DeHart, continued hosting contests as a hobby, but by 2002 the Threadless community hosted more than 10,000 members and had surpassed \$100,000 in worth of T-shirts. By 2004 the hobby had become profitable with more than 70,000 members and sales of around \$1.5 Million and Nickell and DeHart started to focus fulltime on Threadless. Prior to this, they had used the website as a portfolio piece to convince clients they could build their websites (Nickell, 2013b). Today the community has well beyond 2.5 Million members, receives more than 500 design submission per week and sales is believed to be beyond \$30 Million. Today each winning design is awarded \$2,000 together with \$500 gift voucher and another \$500 if the design gets reprinted. Although this is well beyond market rate for graphic design for print,

Threadless finds that the users are not just submitting design for the cash, but also for potential career advancement, possibility to gain feedback and critique from the other users, from the friendships they form online or simply the joy of creating and sharing their work (Ryan, 2011a).

3.2.2 The dual role of users in Threadless

With their business model Threadless has flipped around how T-shirts are made. Usually the company would come up with ideas and designs in-house, put them through focus groups and other market research tools, and then in the end push the product to the market (Nickell, 2012). However, Threadless does this very differently: *“We go to the market and ask them to tell us everything that they think we should make, make them help us narrowing it down, and then we make the best (Nickell, 2012).”* Thus the users of Threadless are vital for the business: The users are contributing the designs Threadless prints and the users also have an important role in selecting what designs eventually gets printed. After a design is submitted to Threadless, the users vote on the design on a 1-5 scale for a seven-day period⁶. Furthermore, the users provide feedback for each other on submitted designs as well as work in progress. The feedback provided by the users increases the quality of the design, while at the same time decreases the entry barriers for new users as they can learn and engage with experienced users on how to get printed on Threadless (Ryan, 2011a). This feedback usually happens on the company hosted forum on the main website. In this forum the users are also helping each other with other problems related to Threadless, such as understanding why a design was rejected by Threadless. Furthermore, the forum flourish with various user-generated guides for creating and submitting design to Threadless. Also the forum is a continuous source of new ideas for optimizing Threadless (Nickell, 2013a). Besides these contributions, the users are also an important part of the marketing. For example, Threadless finds that one of the first things the artists do after having submitted their design to Threadless is to tell their friends to go to vote on their design (Ryan, 2011a). Also, the customers often take photos of themselves wearing new

⁶ Sometimes the voting period is extended in partnership challenges. Furthermore, if the design performs badly during the voting, it is usually taken down after the first 24 hours.

Threadless T-shirts and share these photos on social media sites such as Instagram, Twitter and Facebook, where the hashtag “Threadpics” is used⁷. In general, Threadless has spent very little on marketing, but has rather managed to grow organically mainly through the users and their networks (Nickell, 2010b; 2012).

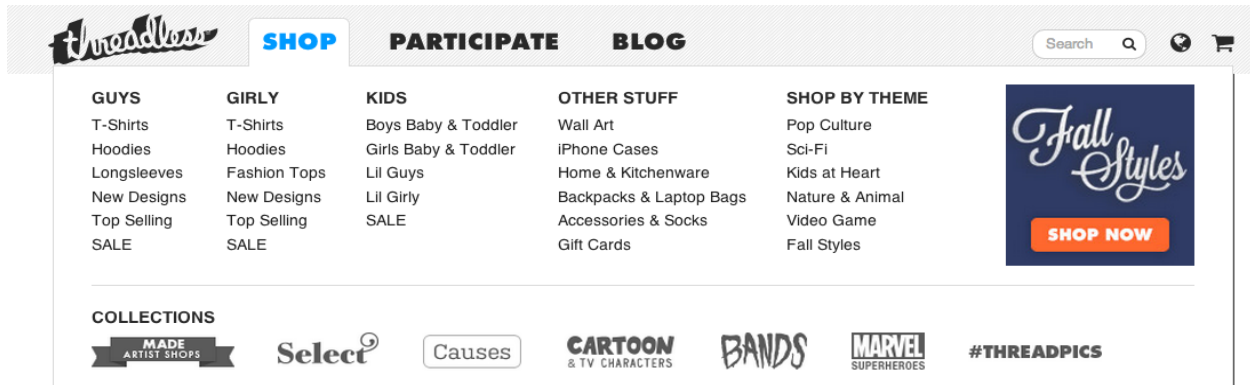
Thus, even though only about 10% of the registered members are submitting designs to Threadless (Ryan, 2011a), the users are continuously contributing with valuable contributions to Threadless besides buying the T-shirts. In 2006 only around 5% of the buyers did not submit any vote prior to purchasing a T-shirt (Chafkin, 2008). Similarly Threadless did a brand study where it was discovered that the customers felt they had a role in creating the T-shirt simply by buying the T-shirt (Nickell, 2013a). However, it should be mentioned that it is possible to buy T-shirts from Threadless without registering as a user (Ryan, 2011a), but in general the idea of the passive consumer hardly applies to Threadless, where the consumer/user is an integrated part of the business model. Generally, Threadless divides their users into four main segments that often overlap: a) the artists who are submitting designs, b) the scorers who are voting on designs, c) the forum people who are active on the forum helping other users and providing feedback on designs, and d) the buyers who buy the T-shirts (Nickell, 2012; 2013a).

3.2.3 Business model innovation at Threadless

Over the years Threadless has evolved beyond only selling T-shirts online. Today the company sells other clothing products such as hoodies and socks, but also product categories further away from T-shirts, including: laptop sleeves, iPhone cases, wall art, and bags, see Exhibit 1 for an overview of products categories currently available on the webshop.

⁷ In the beginning Threadless successfully utilized a loyalty system called Street Team, where users could gain vouchers by taking photos of people wearing Threadless T-shirts and subsequently upload these to Threadless.com. However, this service is currently not available.

Exhibit 1: Product categories available on Threadless.com



Some of these new products have been managed internally, while other products have been launched in partnerships with various companies, often through design challenges⁸. For example, Threadless partnered with Havaianas to create flip flops, Griffin for iPhone cases, Dell for laptop sleeves, Bed Bath & Beyond for a home line, Thermos for hydration bottles, and Nightmare for snowboards. Partnering with these companies provides not only new product categories for Threadless, but also the opportunity to reach new and larger customer segments through big retail. In line with this development, Threadless is now defining themselves as a design community first, where it just happens that most of the designs get printed on T-shirts (Threadless Forum, 2012a; Ryan, 2011a; 2011b; Nickell, 2013a; 2013b). Besides new products and target customers, Threadless has also experimented with new ways of distributing the products. In 2007 the company opened a 160 m² two-storey store in their hometown Chicago. Despite its size, the store only carries around 20 recent prints as it is seen to be a physical embodiment of Threadless.com, and aims to serve marketing and community purposes rather than increase sales (Chafkin, 2008). Furthermore, the store was created as an experiment of how Threadless would approach retail in case they ever did (Nickell, 2010b). In 2008 Threadless opened its second store, also located in Chicago. This store only focuses on their kids' line. Although Threadless initially planned to open more directly operated stores in mid-size cities in the

⁸ Initially called "Threadless loves [company name]" or done through the separate site called Threadless Atrium. However, now it is integrated into the main website.

United States (Threadless Blog, 2007b), the idea of opening more fully controlled stores has later been abandoned (Nickell, 2010a).

In January 2012 Threadless announced another partnership, this time with Gap (Threadless Forum, 2012a). Although Threadless has experiences with previous partnerships, the partnership with Gap poses a major change to the business model: the T-shirt lines for Gap are sold exclusively at Gap controlled stores across the United States and on Gap's webstore at a higher price than the average Threadless T-shirt, and the designs were ultimately picked by Gap rather than by Threadless and the community. Furthermore, many of the Threadless users perceived Gap as having different and conflicting values compared to Threadless and the Threadless community (Langner & Seidel, 2013). Some of these concerns have previously made Threadless decline offers to carry Threadless designed T-shirts in retailers such as Urban Outfitters and Target, and the decision to partner with big retailers is also the main question in a Harvard Business School case covering Threadless (Lakhani & Kanji, 2008). Interestingly, prior to actualizing the partnership with Gap, Threadless engaged with the users about how they would feel about big retailers carrying Threadless products and what retailers they would prefer (Threadless Forum, 2009; Threadless Blog, 2009; Nickell, 2012; 2013a). Before introducing these partnership deals that would get the Threadless products out in big retail, approximately 99% of revenue came from online (Nickell, 2010b), indicating a huge potential for offline retail.

The embracement of partnerships and new product categories within Threadless is a very significant change compared to the early opinion of Nickell. In 2004 Crowdozen asked him if Threadless had any plans of printing on other clothing or accessories, to which he answered:

Nickell (2004): *"If we do so, it will be through another website. Threadless has been and always will be just T-shirts. The submit, vote, win and buy process is complicated enough so we'd like to keep the project as simple as possible."*

However, we do already have another project in development called Naked & Angry. Naked & Angry focus is on submitting tiling pattern designs for various products and we are currently printing neckties.”

Time has clearly changed. Today Threadless is a lot more than T-shirts, and the company is actively pursuing new ways to sell the products as well as new product categories. Naked & Angry, and other community-based projects⁹ started by Nickell and his colleagues, have since been abandoned and/or merged with Threadless: they discovered it was easier to leverage on Threadless than starting a new brand (Nickell, 2013a). Through these changes Threadless is moving from being a community-based T-shirt company, to a community based design business (Ryan, 2011b).

From the above case description it is clear that Threadless fits the case requirements outlined in 3.1.1 Selecting the case. Threadless is continuously leveraging on their users, the users are supplying various contributions, the company is leveraging on ICT advantages, and Threadless has undergone business model innovation. Thus, it is a good case to explore how users’ dual role influences business model innovation as is done in the next section.

⁹ Besides Naked & Angry, these include 15 Megs of Fame, where musicians could score their own songs, and Extra Tasty, a community-based website for cocktail recipes.

4. Findings and analysis

In this section the findings are presented. The deduced dimensions from the conceptual framework serve as a structure for the analysis, however the two knowledge set categories are presented together. Furthermore, due to the inductive findings from the case study, the knowledge set dimensions are more about the quantity and diversity of the users in general, than about the quantity and diversity of the knowledge set of the users in particular. The findings are discussed in the next section, 5. Discussion, which also starts with a summary of the main findings.

4.1 Perceived benefit

Users' perceived benefit clearly influenced business model innovation at Threadless. When first approached by big retailers about carrying Threadless' design in their stores, Jake Nickell and his team declined because they felt the stories behind the T-shirts would be lost if they were sold in retail and it would create a disconnection between the designs and the artists (Nickell, 2010b; 2013a; Kalmikoff, 2009). However, at one point he wrote a blog post on a Threadless forum for members who have had at least one design printed, asking how they would feel about seeing Threadless in big retail (Threadless Blog, 2009). Furthermore he asked about what they would think about specific companies like Walmart and Target. The forum post fostered a lively debate, but overall the members of the forum, who all were printed artists, were excited about the opportunities to have their designs carried by big retailers, as this would provide them with more opportunities to win, and furthermore would give the artists credit and recognition (Nickell, 2012; 2013a; 2013b; Threadless Blog, 2009). Below are some examples of users expressing their happiness about the pre-announcement of the Gap partnership in the special forum for printed artists (called Threadless Alumni):

randyotter3000: "I wanted to get out of Threadless after hitting a decent print amount but its these opportunities that keep me interested. It has the fun and familiarity of submitting to Threadless with the perks of working with big clients

and reaching new audiences, which is part of the reason I have been trying to take advantage of the Atrium challenges.” (Threadless Forum, 2012a)

dandinger0z: “Threadless partnerships will give more chances and opportunities to all unprinted artists here. More power to the community :D” (Threadless Forum, 2012a)

Despite these very positive reactions from the above artists, who clearly perceive the Gap partnership beneficial for both the printed and non-printed artist, other artists expressed concerns regarding the introduction of partnerships, such as the collaboration with Gap.

stubby43: “I don’t understand how this is a good deal for designers. All you’ve done is make the selection process more complicated, turned everything into spec work, stopped designers from taking their rejected designs elsewhere (because there is a possibility that it still might get picked), then tacked on a USD500 gift certificate to Gap which is quite frankly chump change and makes huge assumptions like everybody shops at Gap. (...) The only people this partnership benefits is Threadless and Gap.” (Threadless Forum, 2012a)

This user feels the partnerships change the nature of the design challenges into a speculative work where the client expects to see examples of finished products before agreeing to pay for the work¹⁰. Furthermore the user perceives the deal to be unfair, as the price award provided to the winner does not reflect the potential revenue for Gap and Threadless. Finally the user mentions that the submitted designs will be locked with Threadless, whereby the user won’t be able to attempt to commercialize the print through other channels. Although some users agree with the concerns expressed by this user, the

¹⁰ There is a lot of focus within the design community of avoiding this type of work, as the spec work allow clients to have a large base of designers working for them for free, thus cheapen the whole industry.

concerns do not appear to be the general opinion of the forum. One of the positive users quoted before seem to end the debate with the following comment:

randyotter3000: *“Holy hell, people are so rude and ungrateful, no one is forcing you to design or accept anything you don’t want to, the chance is there as a possibility not a certainty.”* (Threadless Forum, 2012a)

Approximately one year later than the announcement of the Gap partnership, another concern related to the perceived benefits is identified in a discussion of ownership rights over the submitted designs. When Threadless started, the artists kept full ownership over the submitted designs. In 2006 Threadless changed the terms of submitting designs, so the artists would still keep the ownership rights, but submitted design would be locked to Threadless for a period of three months providing Threadless with exclusive rights for printing the design within that three months period (Threadless Blog, 2006). Threadless saw themselves required to do this change in the contract, as some companies had started to make a business out of contacting the artists behind un-printed designs in order to print them outside of Threadless. In some cases Threadless had lost designs they actually had planned to print later on (Threadless Blog, 2006). Although some users expressed concerns about this change, the vast majority perceived the changes as fair. However, in 2012 Threadless changed the contract so they would claim full ownership of the design from the artist (Threadless Forum, 2012c). Provoked by the changes, one user created a petition against the changes on the Threadless forum:

andyg: *“While it feels great to be selected to be printed at Threadless, it feels awful having to sign a contract where you have to agree up the entire ownership of your design to Threadless FOREVER. (...) If you’re not comfortable with the new Threadless contract, sign your name in this thread and I’ll add you to this petition. Together we can stop Threadless from becoming an evil corporation!”* (Threadless Forum, 2012c)

The first to reply in the thread was Nickell who wrote a post explaining that the possibilities to work with partners has driven the recent changes in the contract, as Threadless could not present the design to a potential partner of which they did not have the ownership rights:

skaw/Nickell: "Hey Andy, appreciate the feedback. I'll get into more details after hearing more from everyone in the thread. Here's a quick answer to why the terms are the way they are. We want to support as many independent artists with as many great opportunities as we can. As we've grown and start to partner with other companies, we found that it was a huge, timely administrative problem to go back for every design and get approval on every new opportunity we find. We were also finding that 99% of artists were saying yes to every opportunity we brought. So we thought we'd cut out that step but still allow for artists to get their rights back on various other things they'd want to do with their designs by notifying us (Number 11 in the agreement). So this new contract will allow us to get your designs in front of a lot more people, make you more money and still allow you to use your design for other things if you want to."
(Threadless Forum, 2012c)

Eventually, the petition was signed by 12 other users than andyg, among them the user ilovedoodle, who twice has been awarded the designer of the year. These users perceived the costs of submitting under the new contract outweighed the benefits. However, a total of 13 signatures are not a lot given the total of 160 comments made in the thread and the amount of active forum members on Threadless. The general opinion regarding the contractual changes thus could be summarized by the comment of the following user:

evyc : "I feel like if I didn't want Threadless to have the rights to my work, I wouldn't submit my art to them in the first place." (Threadless Forum, 2012c)

Furthermore, although Threadless kept the changes to the ownership rights, little effect seems to have happened among the 13 users who signed the petition. In fact, five months later than the petition was initiated, andyg is the only one of the users who deleted his account. Of the other 12 users, 10 have been active by either submitting new designs or engaging with the community since they signed the petition. Therefore the influence of these changes to ownership over the design seems not to have influenced the artists perceived benefit significantly.

So far the analysis of how the perceived benefit of the users influence business model innovation mainly have focused on one type of user: the type of user who submits designs to Threadless. However, when doing the changes to their business model such as partnerships, Threadless focuses on both the artists and the buyers (Ryan, 2011a; Nickell, 2013a). Below are some examples of how the buyers express concerns of how partnering with retailers might negatively influence their perceived benefit:

Rambunkcious: *"I don't care if I sound elitist by saying this but I like having unique shirts that you can't find in every store and that you don't see 50 people a day wearing. It makes me feel like I'm supporting the artist that designed it, rather than the corporate store (ie. Macys, Nordstroms, wherever) I bought it from. When I buy a generic shirt from a store all I think about is, oh it is just a shirt. When I buy a Threadless shirt I think, dang I voted for this, I supported the artist and Threadless."* (Threadless Forum, 2010b)

martiandrivein: *"The T-shirts have names... kinda like people. When the designs get picked and displayed, the names are the most prominent, and it gives them all character. It explains some of the concept, and helps when you explain them to someone else (if it's full of meaning)... however, when you take that away, and have them displayed on a rack, or a sloppy mess (as most department stores like*

to display their T-shirts) the shirts become generic, and their names are given less prominence. I guess I feel the names give them a more humanistic quality, and for me at least, give them a bit more value.” (Threadless Forum, 2010b)

To accommodate for these concerns expressed by the buyers, Threadless chose only to sign deals with retailers who agreed to only sell exclusive designs not available anywhere else. Furthermore, Threadless was very much aware of still being able to tell the story of the T-shirt¹¹ (Nickell, 2013a). However, by only signing exclusive deals, Threadless excluded the opportunity of retailing bestsellers in other stores. Therefore, a design such as “The Communist Party” that has been reprinted around 20 times, will, despite its proven commercial potential, not be sold in big retail. Furthermore, since Threadless insists on maintaining to tell the story behind the designs/T-shirts, they exclude the possibility to be a white label brand (Ryan, 2011a), although it might be a way to commercialize more of the submitted designs.

It seems evident that the perceived benefit of the users influences the options for business model innovation at Threadless by constraining the options to those that are perceived beneficial and fair by the users. However, there are also examples of how users have positively influenced the business model of Threadless in ways the company had not imagined. In the interview with Nickell, he mentioned two ways the users are helping making Threadless better.

Nickell (2013a): “In the forum all the time there are ideas that we implement and also just people using our site in unintended ways, which we then sometimes have turned into a feature.”

One example of the users using the site in unintended ways is how the users started to post designs on the Threadless Forum, in order to get feedback from the other users, prior to

¹¹ It should be noted that a few users did not like the exclusive deals, as this would imply that the designs no longer were accessible worldwide. However, these were few, and did not comment back after one user mentioned they seemed to forget that the retailers have online webshops as well (Threadless Forum, 2010b)

actually submitting the design to Threadless (Nickell, 2012; 2013a; Kalmikoff, 2007). Threadless did not initially intend for the blogs to be used in this way, but the action of the users were beneficial for Threadless, as it increased engagement with the site, led to better designs, and provided the users with more options from learning from each other. Thus, the action of the users led Threadless to receive better designs, while at the same time providing more benefits to the users. Eventually Threadless even incorporated a specific critique section into the site¹² (Nickell, 2012, 2013a; Kalmikoff, 2007; Threadless Blog, 2007a). The Chief Creative Officer at the time, Kalmikoff, used the example of the critique section when explaining the importance of listening to the users:

Kalmikoff (2007): "We have blogs on Threadless. People were using the blogs for reasons that they weren't really intended for. On the blogs people were submitting designs before they would go up for actual submission. So we noticed that people were using the blogs for something that we didn't necessarily intend. It is actually important. Because if you design your site, and people use your site in a way that you didn't really intend, then you need to change your site. It is a lot easier to change your site to the way people use it than to convince, in our case over 500.000 users, to use the site the way we intended."

Another example of how users pursue their own interest led to new business opportunities and ways to create value that Threadless had not considered, is Threadless' partnership with Disney. The root to this partnership is found back in 2010 when one user, Rolf Nelson, designed a hoodie featuring Disney's TRON character, prior to the release of the movie "TRON: the legacy" (Nickell, 2013b; Nelson, 2013). The product became very popular with eight reprints within a month and widespread media attention (Nelson, 2013). At some point Disney became aware of the design and contacted Threadless with a cease and

¹² This critique feature does not function since the replatforming of the site, however the users still use the forums for feedback on work in progress and rejected designs.

desists order for the hoodie, as it was violating their property rights. Through this, Threadless ended up having a conversation with Disney and instead of stopping the hoodie, they turned it into a partnership and a business (Nickell, 2013b). Since the TRON hoodie, users of Threadless have been able to design for Disney properties including: Iron Man, The Muppets, SpongeBob SquarePants, Mickey Mouse & Friends, Teenage Mutants Ninja Turtles, and Monsters, Inc. (Flaherty, 2013; Threadless.com).

Thus, one of the most successful partnership deals was neither initiated by Threadless nor the partner, but by one user who designed a hoodie using one of his favourite movie characters without considering the potential costs of copyright infringement. The partnership with Disney have provided Threadless with not only new retail opportunities, but also provided the users with joy of altering Disney properties that are usually very much protected. Furthermore, the partnerships have helped attracting new customer and user segments to Threadless, as the Disney products and design challenges interest a wider - and often younger - audience. However, it should be noted that not all of the users' actions necessarily lead to positive consequences for Threadless, as when some users took their unprinted designs to other sites before Threadless would get to print them¹³.

Thus, in the case of Threadless the perceived benefit of the users both increased and constrained the options for business model innovation.

4.2 Perceived partnership

Supporting the findings of Langner and Seidel (2013)'s study of Threadless, the users seem to perceive themselves as an important part of Threadless whether they are buying or submitting designs. For example, in one study carried out by Threadless, they discovered that the people who bought a Threadless T-shirt thought of themselves as having helped the T-shirt getting produced, simply by buying the product (Nickell, 2013a). However, it appears the users do not only perceive themselves as a part of the process of creating new T-shirts, but also at a more strategic level of the company. For example, in a forum post,

¹³ It should be noted that Threadless in general supports that their users sell the designs through other community based design companies such as Society6 and Etsy.

titled “Why does Threadless exist?” published shortly after the announcement of the Gap partnership, Nickell explains to the users why he started Threadless as a hobby and a vision against mainstream consumerism and how he sees the partnerships to support the vision of changing the way things are created and consumed (Threadless Forum, 2012b). Among many of the positive comments to the forum post, one of the users emphasized how impressed and important he finds Threadless and how the company has maintained a close connection to the community of users:

igo2cairo: “I have always loved how connected the Threadless staff is to it’s community and can’t think of another site that comes close to the kind of support system you have created for the artists. For such a big and growing company you have managed to keep things personal and have proven that it’s possible to run a successful business while also being fair, ethical and extremely generous. Keep on being awesome Jake.” (Threadless Forum, 2012b)

From another post, we find similar support for the fact users feel themselves valued as an important part of Threadless.

[+duracell]: “Jake/Threadless, thanks for all that you do. Even though everyone may not agree with every choice that is made (print or otherwise) all the time, it’s nice to know that you and the staff are listening. Just the thought that Threadless “the company” carries an open dialog with us “the consumers” blows my mind. You hear our wants and adapt as we adapt. That’s why this whole thing works and is so successful.” (Threadless Blog, 2010)

It is a deliberate choice of Threadless to engage closely with the community and to make them feel valued, as it builds trust between the users and the company (Kalmikoff, 2009; Ryan, 2011b). The trust seems to positively influence the perception of the changes made

to the business model. This is, for example, reflected by these users' comment to the already mentioned ownership changes made in 2012:

mechanicalrobotpower: *"From everything I have seen and witnessed here, the artist is always credited, and nobody (that I have witnessed) has lost their ability to reclaim their work for another purpose. I have no problem with this at all."* (Threadless Forum, 2012c)

randyrotter3000: *"I am yet to hear of a single example where an artist has said I want to print my design on [insert product here] and Threadless has refused them (apart from the obvious core products such as shirts and hoodies). Threadless is still your friend who wants you to succeed not hinder you by taking away your rights."* (Threadless Forum, 2012c)

So far Threadless seems to have managed to build a strong relationship with the users although the user base has grown to 2.5M users. It will be interesting to see if they are able to stay close with the users as the company continues to grow. Although the users highlight that they appreciate being involved with Threadless, it is not evident from the study if strong perceived partnership requires Threadless to engage with the users regarding important decisions. However, this might be because the users do feel sufficient involved and therefore see no reason to complain about their level of involvement. Generally there seem to be an understanding among the users of the changes to the business model made at Threadless.

4.3 Sense of responsibility

Within the Threadless community the users clearly showed affection to each other. For example, in the ten years Threadless anniversary announcement one user wrote:

piliph: *"Threadless is family. Thanks for everything."* (Threadless Blog, 2010)

In another blog post another user also highlights the importance of the users, by stating they are the reasons he stayed with Threadless:

agrimony: "In my opinion there exists two Threadless: One, the very public T-shirt shop/design competition where you can buy awesome T-shirts. Second, the lesser known awesome people behind the art who make all sorts of stupid jokes on the blogs. Came for one, stayed for the other." (Threadless Forum, 2012b)

Similarly, Greig, the user with the most votes last year, on average 132.7 votes a day, explained she joined Threadless because of the humoristic T-shirts, but ended up staying there because of the blogging community (Greig, 2013; Threadless Blog, 2013). In fact, it was also through the blogging community she started to vote on the T-shirts, as one user had created a post making it an obligation to cast a few votes everyday. Greig thought this was a good idea, and in this way she got hooked on the voting process (Greig, 2013). However, another user contacted through this research, Kwan, who was awarded the artist of the year in 2013 and has a total of 83 designs printed, including 13 designs for the Gap partnership, does not seem to value the internet friends as much. However, he thinks it might have been better if he would have stayed in the U.S. where the community is more active and often meet offline.

Kwan (2013a): "Until now I do not feel I am close with the community. Knowing someone online does not make me feel like I know the person. A few weeks ago I went to Chicago and I think if I had been living in the U.S., my relationship with the rest of the community would have been different. The community is actually pretty active offline."

Two things should be noted regarding this. First of all, it is difficult to distinguish the dimension of sense of responsibility from the perceived social identification. For example, family can both signal obligation, but at the same time belonging. Secondly, it is not evident

how the sense of responsibility has influenced business model innovation at Threadless, however it might be that the sense of responsibility transcends business model innovation. None of the users contacted during research felt the changes made to Threadless have influenced their relationship with the other users. In this way, the users feel as obliged prior to the changes as after the changes, whereby the sense of responsibility, at least to some extent, supports business model innovation.

One interesting finding regarding the social responsibility, is the level of affection shown to Nickell and the rest of the Threadless staff. Below are just some examples from the ten-year anniversary announcement post:

jublín: "It's pretty amazing how big of an impact Threadless has had in my life. Skills, jobs, friends, travels, goals, it's basically affected all aspects of my life and without it I really don't think I'd be doing any of the same things I'm doing right now. I don't even think I would be as involved in art as I am now. Wow, crazy to think about. Thanks Jake!" (Threadless Blog, 2010)

WanderingBert: "Honestly, Threadless has made my life. Seriously. Without Threadless I would never have been able to start up by own business the way I have been able to, my skills as an illustrator wouldn't have developed to where they are now, and I wouldn't have had anyone anywhere notice me as an artist. I literally love you guys!" (Threadless Blog, 2010)

Thus, in case the social responsibility fosters some sort of stabilizing commitment to continuously engage with Threadless despite business model innovation, this obligation is likely not only to be reflected towards the other users, but also towards Nickell and the other Threadless staff. Responding to some of the critical users in the Gap announcement, one user suggests people should be more grateful to Threadless.

UpforDraw: *“Been reading some of the comments and it’s kinda sad that some artists, even if one or more of their designs have been printed already, can get a little rude or IMO “ungrateful” to Threadless.”* (Threadless Forum, 2012a)

In this way the obligation to the community, as well as to Threadless, positively influences business model innovation by having users commit to future changes due to past behaviour.

4.4 Perceived identification

As already shown, the users within Threadless articulate their feeling of belonging to the “Threadless family.” According to Nickell, the Threadless identity is mainly centred on a rivalry with mainstream consumerism and a vision to celebrate the individual artists (Threadless Forum, 2012b). The users have also developed a set of symbols such as certain famous T-shirt prints that have been reinterpreted in several occasions, and have developed a whole vocabulary of Threadless lingo (see Threadless Forum, 2010a for comprehensive overview). The strong shared identity between the users and Threadless has clearly influenced business model innovation at Threadless. For example, in the decision of what companies Threadless does partnerships with: if the company’s brand does not align with Threadless, then they do not want to do any deal with them (Nickell, 2013a). In the beginning when Threadless first experimented with partnerships they even rejected to receive any money from the partner, because Threadless did not want any monetary incentives to influence whether they would do the partnership: the decision was purely made on whether they liked or disliked the potential partner (Nickell, 2009).

The concern from the top management of Threadless regarding the importance of choosing the partners with the right values is reflected in the concerns of the users. For example, one user responding to an experiment of having Threadless’ products in the department store chain Nordstrom, states he sees no problem with this type of retail, although he is anti Walmart.

Chengui: *"I don't see anything wrong with testing these waters. I'm anti Walmart but I don't mind this really."* (Threadless Forum, 2010b)

Similar concerns are seen in the previously mentioned announcement of the Gap partnership. For example the following user is overall satisfied with the previous companies Threadless has partnered with, but feels the partnership with Gap is to push the type of partner a bit:

FRICKINGAWESOME: *"This is a real great idea Threadless, you've been super successful partnering with lots of smartly chosen companies, and I'm sure that will continue to broaden the Threadless customer market aplenty... although Gap is pushing it guys!"* (Threadless Forum, 2012a)

Within the same context another user even consulted with the user's sister, who has knowledge about the fashion industry, about how good Gap is treating their employees.

Tonteau: *"When I got the initial email, I asked my sister (who's worked in the clothing industry for 13 years or so) how good Gap are for treating their workers well and looking after them and she said they're one of the best on the high-street (UK, that is)."* (Threadless Forum, 2012a)

Thus it seems evident that the strong shared identity influences business model innovation by, for example, limiting the potential partners Threadless can work with. Whereas the users and Threadless can accept Gap, it is for example unlikely that the Threadless products will ever be sold in Walmart. Similarly, Threadless needs to consider production techniques and is expected to use responsible methods (Nickell, 2010a). However, the shared identity is also likely to positively influence business model innovation in a similar way as seen with perceived partnership. When the users share a strong identity with Threadless they are likely to trust that Threadless is still focused on the best interest of the

users when making changes to the business model, such as going into retail through partnerships. The following user in the Gap announcement discussion, who believes only good things can come from the partnership, expresses this:

ArTrOcltY: "I feel honoured to even been considered for something like this! I believe Threadless chooses wisely their partners and they always seem to have in mind how designers will benefit from it so only good things can come from all of this. Thank you Threadless and congrats to all lucky and well deserved winners!" (Threadless Forum, 2012a)

4.5 Large and diverse crowd

It has already been covered how the users have provided Threadless with ideas and influenced the current business model in ways Threadless did not anticipate through, for example, the feedback they provide each other prior to submitting the final design. However, the scale and diversity of the users have influenced business model innovation at Threadless in other ways as well.

First of all, it should be evident by the analysis that the users do not always agree upon the changes and future of Threadless. This is confirmed by Nickell who states that him and the rest of the top management at the end of the day will have to make the decision, since there is no consensus in the community:

Nickell (2013a): "It is not like that there is a consensus in the community I can reassure you. So in the end we are always going to make the decision."

Threadless' users can be divided into some sub-communities who make different contributions to Threadless and often are motivated by different desires. As mentioned in the part 3.2.2 Users' dual role at Threadless, these sub-communities consist of the artists who submit designs, scorers who score designs, the forum people who hang out in the forum and talk products or engage socially and finally the customers who buy the products.

In the previously mentioned decision of going into retail, Threadless found the artists generally were very much on board with the decision, as it would provide them with more opportunities, while the customers perceived the change more negatively, as some of them felt the T-shirts would lose their exclusivity. Thus, the different user segments had somehow conflicting opinions on whether Threadless should go into big retail. After engaging with the community, Threadless eventually found a solution on going into retail which suited most of their users by only selling exclusive designs in retail stores (Nickell, 2013a). Through this solution, Threadless was able to satisfy the two different user segments, who engage with Threadless in different ways and gain different values by participating.

The task of managing multiple user segments when changing the business model is further complicated by the fact that each segment is fragmented, with various motivations for contributing to Threadless. For example, the segments of users who submit designs to Threadless include a range of different background and motivations. According to Threadless, the majority of the artists are art students¹⁴ (Ryan, 2011a; Nickell, 2010b). However, among the artists there are also complete amateurs and professionals who have worked with graphic design for many years (Ryan, 2011a; Nickell, 2010b), and the age of the winners range from 13 years old kids to people in their sixties (Nickell, 2010b). In the blog post “Why does Threadless exist?”, posted shortly after the announcement of the Gap partnership, the variety of motivations and benefits from being a part of Threadless are seen in the comments by the different users:

quick-brown-fox: *“Being part of Threadless is one part of my CV I am proud of. I wish I had found it sooner because it’s the creative outlet I really needed. I can’t see a day when I won’t be thinking about this place.”* (Threadless Forum, 2012b)

¹⁴ Probably the monetary incentive for art students are comparably higher, also they can gain valuable learning from peers as well as build a reputation that can help them in their future careers.

Theo86: *"I would also like to say thank you! Threadless is awesome and allows me to make some great artwork I would never have done without. The community of Threadless has helped me a lot and keep on improving. Plus my T-shirt collection wouldn't be as awesome without Threadless."* (Threadless Forum, 2012b)

soloyo: *"Thanks, not only for providing an outlet to our creativity but also for helping us meet so many amazing individuals regardless of nationality or race. Also for helping us make a little bit of financial profit as well."* (Threadless Forum, 2012b)

jamesf: *"I am immensely proud to have had a shirt printed by Threadless - especially as I am not a designer. What I have really loved though is meeting other Threadlessers and all that."* (Threadless Forum, 2012b)

These examples show the diversity of value propositions Threadless offers to their artists. Thus there are obviously many concerns to consider when experimenting with the business model. And it gets further complicated when it is considered how the different user segments overlap: the users rarely only contribute with one type of contribution, but are doing various activities such as voting, submitting designs, buying T-shirts and engaging with the community. Threadless obviously means so many different things to so many different people. It is difficult to distinguish who the core customer is and what the value gained is. Not even the basic distinction between artist, voter, and buyer is sufficient, because there are many types of artists, many types of voters, and many types of buyers. Threadless connects all these different customer segments through individual value propositions within Threadless' business model.

The balance between providing artists with exciting opportunities while maintaining some exclusiveness to the buyers of the T-shirts, is one example of how Threadless has

considered the different user segments when innovating their business model. Another example of how Threadless has to consider the various users' motivation for participating is found with the recent introduction of Threadless Made. Threadless Made can be described as a shop within Threadless only selling the designs of one single artist. The artists have almost complete control of their stores and sell around 10-20 of their own designs in these stores (Nickell, 2013a). Currently Threadless has provided this opportunity to 30 artists and it was started because some users on Threadless were doing extremely well and in the words of Nickell (2013a) "grew out of Threadless." For Threadless to stay relevant for these very successful artists, whose careers take off and start to submit fewer designs, Threadless introduced the Made shops (Nickell, 2013a). Providing selected users with a shop within Threadless that, to a large extent, they control themselves is a significant change to Threadless, as the Made artists can pick what designs to sell. Thus the curating role of Threadless is limited to advising the artists and the initial selection of which artists should have a Made shop.

Interestingly the introduction of the Made shops thus do not stem from Threadless seeing new opportunities, such as is the case with the introduction of partnerships, but rather Made shops were introduced due to a push from certain users. These users have, through Threadless and probably other platforms, grown out of the initial business model of Threadless. To keep them engaged and stay relevant, Threadless had to offer them a new value proposition. Thus the users are not static: The solutions they demand and the contributions they supply are evolving as they go through different phases.

Similarly to the goal of staying relevant to the very successful artists, Threadless is still working on making it exciting for someone whose design does not get printed (Nickell, 2013a). As Threadless is still attracting a larger crowd of users the bar of getting printed is continuously being pushed higher, making it increasingly difficult to get printed (Nickell, 2010a; 2013a). This can be very discouraging for some of the users who then stop submitting designs to Threadless rather than continuing to submit designs until

succeeding (Nickell, 2010a). As evident from Table 3 it is bad for Threadless if users who were not successful in the beginning would stop submitting, as some of the very successful artists had to wait rather long time until being printed. For example, two of the artists in the table below, chengui and Fleck, have both been provided with their own Made shop, but had to submit 28 and 14 designs respectively before being printed for the first time. If they had been discouraged from submitting earlier, Threadless would have lost two very successful artists. Similarly, it took two years before Kwan was printed for the first time, now he is the most printed artist on Threadless (Kwan, 2013b; Threadless Blog, 2013).

Table 3: Submission history and time to print

User	First print	Second print	Submissions	Prints
Jellyes	21	27	41	2
torakamikaze	21	59	68	3
chengui	28	34	98	24
Fleck	14	16	77	21
Naolito	20	27	162	13
Bramish	20	31	69	14
biotwist	4	8	349	11
ArTrOcItY	159	232	363	2
L-M-N-O-P	34	38	74	5
xiv	23	32	83	11
opifan64	8	15	63	19

Data obtained from Threadless Forum (2012d) and user profiles available through Treadless.com.

The scale and diversity of the users thus seem to have influenced business model innovation in various ways at Threadless. Through suggesting ideas and using Threadless in unintended ways, the users have increased their gained value from using Threadless, and overall made Threadless more profitable. Furthermore, as the users have been growing with the service, and Threadless has attracted more users, Threadless has been compelled to innovate their business model in order to stay relevant for the very successful users as well as the less successful ones. Also the diversity of the users have made business model innovation increasingly complex, as the new business model has to satisfy many

different users, who gain value from Threadless in very different ways. Furthermore, Threadless cannot fully anticipate the reaction of the users. This is very challenging for Threadless, as they fully rely on the ability to attract the contributions of self-motivated users whose designs are sellable. Basically Threadless would not exist without their users:

Nickell (2010a): *“I think it is scary for some companies, because without our customers being inspired enough to create awesome designs that other people want us to make, our company is nothing. We have absolutely nothing to offer if there aren’t people out there submitting artwork that other people are interesting in buying.”*

One way Threadless has tried to overcome these challenges is by engaging with their users, especially their artists, about future changes (Nickell, 2013a). When engaging with the users Nickell argues it is important also to listen and allow for negative feedback as he perceives negative feedback to be more honest (Nickell, 2010a). This can be supported by the forum posts about Threadless in Nordstrom stores, started by a user who did not really like the idea, and in the petition against the changes to the ownership rights made in the spring 2012 (Threadless Forum, 2012c; Threadless Forum, 2010b). In both cases Nickell engaged in the discussion, but mainly by clarifying why Threadless did what they did. Furthermore, he made it clear that he appreciated the opinions of the users who did not agree with Threadless.

However, according to Nickell, Threadless does, at the same time, not completely live and die by what the community thinks (Nickell, 2013a). Although they consider the users a main stakeholder and are willing to adapt many decisions according to what the users think, there are decisions the top management at Threadless must make themselves (Nickell, 2012; 2013a; Kalmikoff, 2009). The decision of doing partnerships with companies such as Gap is one such decision where the top management of Threadless saw a huge opportunity of evolving Threadless from being a community based T-shirt company

to becoming a community based design company. As have been covered in this analysis, Threadless did engage with the users regarding this change and considerations to the users also influenced the way partnerships were introduced by constraining certain options such as white labels, retailing bestsellers and excluding non-aligned brands. However, the process of evolving Threadless to become a community based design company has been driven mainly by strategic thought from top management (Nickell, 2012; 2013a; Kalmikoff, 2009)

Nickell (2012): *“There are decisions that we have to make ourselves, such as making big strategic changes of what we are doing. So it is not like everything is just up to the community and the employees. I think this is an important part of the message too: there has to be strategic thought in the business as well.”*

Interestingly it took Threadless quite a long time to succeed with partnerships. Thus, it seems Threadless also suffered from well-established barriers to business model innovation and is required to experiment with different models before finding the appropriate way.

Nickell (2013b): *“In addition to the user experience on the site, doing more partnerships is the other thing that I am stoked about right now, because that is something that we sucked at for a really long time, and now we are getting really good at it with the retail licensing deals that we are doing. I think we just hit the tip of the iceberg there.”*

The next section, 5. Discussion, provides a summary of the main findings as well as a discussion of the implications and limitations of the findings.

5. Discussion

In this section the main findings of the research are discussed. The section starts by providing a summary of the main findings followed by a discussion of the managerial and academic implications of the research. Before suggesting avenues for further research, this section also discusses the main limitations of the research.

5.1 Summary of the main findings

To study how users' dual role, as supply of contributions and demand of solutions, influence business model innovation, this research first established the theoretical context through three distant but related literature streams: user innovation, platform and business model literature. In this review it was established that companies are increasingly leveraging on contributions from their users. The nature of these contributions is varied and includes: need and solution knowledge, help services, idea evaluation and selection, and diffusion (von Hippel, 2005; Poetz & Schreier, 2012; Hienerth & Riar, 2013; Antorini et al., 2012; Ordanini et al., 2011; Jeppesen & Frederiksen, 2006; Nambisan & Baron, 2010; Jeppesen & Molin, 2003; Casadesus-Masanell & Zhu, 2012). Prior literature has emphasized that leveraging on users has scale and diversity advantages and that users have unique, often non-pecuniary, motivations for participating, making them more cost-effective compared to employees (von Hippel, 2005; Boudreau & Lakhani, 2013; Baldwin & von Hippel, 2011). However, continuously and systematically leveraging on the contributions from the users requires the company to understand itself as only a part of an ecosystem where the company needs to facilitate a collaborative innovation process rather than enforcing certain outcomes through hierarchical power (Keinz et al., 2012; Parmentier & Mangematin, 2013). In these user-centered business models the company is no longer solely responsible for creating, delivering and capturing value (Hienerth et al., 2011). Recent literature has explored the nature, challenges and strategies for implementing these user-centered business models (Hienerth et al., 2011). However, (to the awareness of the author) no literature has systematically explored how business model innovation is influenced once companies successfully have implemented a user-centered business model.

Following the literature review, the author, mainly from user innovation literature, deduced a conceptual framework. The conceptual framework was used to direct the research and it describes the characteristics of the users along two main categories of dimensions: motivational dimensions and knowledge set dimensions.

Through the explorative case study of Threadless, a company who is continuously leveraging on its users and has experimented with its business model, various findings of how users' dual role influences business model innovation were explored. Main findings from the explorative case study are presented below.

Threadless had to carefully consider the perceived benefit of the users when changing its business model. This aligns with research on users employing a cost-benefit analysis (Nambisan & Baron, 2010; von Hippel, 2005). In this way, users' perceived benefit from contributing to Threadless, constrains business model innovation only to those solutions where the users still find it attractive to contribute. For example, Threadless decided to sell only exclusive designs in big retailers due to considerations to their customers, who often like to think of Threadless as something exclusive. Thus Threadless decided against the option of selling their bestsellers through retail partners. Similarly, users' perceived identification with the firm and the community appears to constrain certain business models and opportunities that conflict with the shared values. For example, the users of Threadless did not want to see Threadless designs in Walmart, as it conflicts with their values. Thus aligning with suggestions by Fosfuri et al. (2011) who argue that a shared identity with the users exclude a range of opportunities that conflict with the values and symbols of the shared identity. These are both examples of how users' dual role, to some extent, increases structural barriers for business model innovation (Chesbrough, 2010), as they become an additional resource that must be managed and considered carefully when changing the business model.

Furthermore, the findings suggest that users' perceived benefit of the business model innovation appears to be moderated by their perception of partnership, their sense of responsibility to the other users and Threadless, and their perceived identification with the firm. This supports the findings of prior research that has shown that users do not participate solely due to perceived net utility (Franke et al., 2012; Nambisan & Baron, 2010; Shah, 2006; Lakhani & Wolf, 2003; Fuchs & Schreier, 2011). When the users a) perceive to be involved in Threadless, b) have built up a gratitude for what Threadless has provided them, and c) perceive Threadless to share the same values, they appear to trust that the changes to the business model are beneficial for themselves and they seem to understand that Threadless also is a business and needs to make a profit. In this way the users influence business model innovation positively, by influencing the perceived benefits and by having built trust towards Threadless; they trust the company will not mislead them.

However, since there is no consensus among the Threadless users it can be challenging to manage the different interests within the users when innovating the business model. Most obvious is the conflicting interest between the artists, who are the users who submit designs, and the buyers, who are the users who buy the products. While the buyers often do not want Threadless to become mainstream, most of the artists want their designs out as many places as possible. Threadless overcame the mentioned challenge by only selling exclusive designs in big retailers, whereby both user segments were satisfied. However, to only consider two user segments would be to simplify the diversity of the Threadless users. Besides artists and buyers, there are also people who score the designs and people who engage on the forum, and most of the times these different segments overlap: The artists are not only submitting designs, but are also voting, commenting on the forums and buying T-shirts. Similarly, a buyer might not only buy T-shirts, but is likely to (at least) also vote on designs. Furthermore, each of these user segments consists of users with different incentives and desires for participating on Threadless. For example, on the artists' side, there are amateur designers without any relevant educational background; there are

professionals as well as art students. Therefore, it can be a challenging task to innovate the business model and satisfy all the different users.

These different user segments are not only diverse and overlapping, but also dynamic. The contributions the individual user supplies and the solutions the user demands are likely to evolve over time. For example, one user might join Threadless as an art student who values the opportunity to earn extra money, or the chance to learn and get feedback from other designers, and to build up a reputation that can help his or her career. Over time, this user is bound to graduate, and at this time, the value gained from Threadless is likely to change. If the user successfully managed to become a professional designer, Threadless is likely to be a viable option for staying up to date with design trends and serves as a creative space outside the day-to-day job. However, the money and reputation might not be as important for the user as during the student days. To accommodate this type of user evolution, Threadless recently introduced the Made Shops, where successful artists can sell their designs within the Threadless platform. Thus the dynamic nature of the users seemed to provide some sort of push for business model innovation in order for Threadless to stay relevant.

Another finding is that the users have let Threadless to viable business opportunities not seen by the company before. This supports research on users as an attractive way of generating solutions to problems from outside the agent's dominant field of expertise (Poetz & Schreier, 2012; Lilien et al., 2002; Lettl, 2007; Jeppesen & Lakhani, 2010; Afuah & Tucci, 2012, Franke et al., forthcoming). For example it was the design of a user that initiated Threadless' partnership with Disney. Another example is the critique section on Threadless. It was created because the users started to use the blogs to gain feedback from their peers. This is a vital part of their business today, where the users are collaborating with each other rather than competing. Through the critique section both the users and Threadless gain extra value. For the users the critique section provides an opportunity to gain learning from their peers and build friendships, while for Threadless it provides them

with more engaged users who are submitting better designs. These are examples of how the users of Threadless have been able to utilize Threadless in ways the company did not intend, but had a very positive impact on the business. Thus, at least to some extent, the involvement of users can decrease some of the cognitive barriers for business model innovation emphasized by Chesbrough (2010), as well as increase opportunities for business model innovation such as optimizing the value proposition to the current customer segment (Massa & Tucci, forthcoming).

Although Threadless' users have influenced business model innovation in various ways and the company highly depends on the ability of continuously attracting the self-selecting users, the top management argue they do not live and die hundred per cent by the users: The users are viewed as an important stakeholder who they value and engage with, but the strategic decisions are eventually made by Threadless (Nickell, 2012; 2013a; Kalmikoff, 2009).

In the following parts the implications and limitations to these findings are discussed. The paper ends with suggestions for further literature.

5.2 Implications

5.2.1 Managerial implications

In their article on two-sided platforms, Eisenmann et al. (2006) suggest the reason why platform companies have struggled to establish and sustain their two-sided networks are rooted in a common mistake of relying on assumptions and paradigms from the management of non-platform based companies. Eisenmann et al. (2006) highlights the importance of carefully considering network effects when managing the two-sided platform and mainly suggest price setting as the tool to establish and sustain these platforms. As mentioned in the literature review, more recent research has shown that platform companies need to use a range of tools (contracting choices, information dissemination, technologies and road maps) to manage the platforms (Boudreau & Hagiu,

2008; Iansiti & Lakhani, 2009). And although non-paid users have different behavioural model than paid contributors, recent literature suggests the usual network effects emerge (Boudreau & Jeppesen, 2012). This research confirms the complexity of managing the ecosystem constituting the platform, by suggesting that companies leveraging on self-selecting users as supply and demand, need to carefully consider the characteristics of their users. This becomes evident if the platform company wants to change its current business model. The conceptual framework developed in this paper provides some guidance for the managers regarding the different aspects of the users they need to consider, and how they might influence business model innovation. It is especially useful for the company to carefully consider motivations of the users, how these motivations evolve, and how they are likely to vary from user to user.

Furthermore, supporting suggestions by Langner and Seidel (2013), the case of Threadless suggests that these platform based companies who continuously leverage on their self-selecting users and who want to change their business models, are likely to benefit from engaging with the users regarding different considerations connected to business model innovation. Engaging with the users is likely to decrease the possible cognitive barriers of the managers, as they can gain insights into the concerns of the users that might not have been possible to anticipate. This seems to be aligned with the research highlighting users' unique need information (von Hippel, 2005; Chesbrough, 2011; Keinz et al., 2012). Furthermore, engaging with the users and building relationships with them seem to increase the users' trust in the company, which in turn seems to make the users perceive the changes to the business model more beneficial and reasonable.

Finally, the case study suggests that business model innovation is about experimentation and gradual changes, thus confirming prior research on business model innovation (McGrath, 2010; Chesbrough, 2010). The change from community based T-shirt company to community based design company did not happen overnight, but was a result of continuous experimentations. This is likely the result of barriers within the company, but

also because of the users who, to support the changes, must perceive the changes beneficial for themselves. It is supported by the findings that incremental changes are likely to conflict less with users' existing knowledge of the business¹⁵.

5.2.2 Academic implications

This study has several academic implications. First of all, the developed conceptual framework and the explorative case study contribute to an emergent phenomenon of business model innovation in ecosystems. The research serves as a first step into understanding the complex dynamics underlying the phenomenon and further research can leverage on both findings and the conceptual framework as they aim to gain a deeper understanding of the phenomenon.

Furthermore, this research contributes with insights into each of the three main research streams applied in this research: platforms, business model and user innovation literature. The main implications for each of these research streams are elaborated below.

Platform literature often divides the platform into different sides (Eisenmann et al., 2006; Eisenmann et al., 2008; Boudreau & Jeppesen, 2012; Boudreau, 2012; Zhu & Iansiti, 2012). For example, the video games market is described to consist of the players on one side consuming the games and the developers on the other side supplying the games (Eisenmann et al., 2006; Zhu & Iansiti, 2012). In some way Threadless can also be divided into different sides, namely: the artists, the voters, the buyers, the forum people and partner companies. Each of these sides supply and demand various contributions to the ecosystem constituting the multi-sided platform of Threadless. However, as evident through the analysis of Threadless, these sides often overlap with each other. For example, the artists are not only contributing with designs, but are often also voting on other designs, providing feedback to other artists, and buying T-shirts. The notion of the passive

¹⁵ Nickell (2013a) mentioned that users' first reaction to changes to the platform is often negative. He furthermore explained, that Threadless overcomes this negative reaction by incorporating critique from the users in the new version.

consumer hardly applies in this context. This indicates that when users are both supply of contributions and demand of solutions, it is more appropriate to think of the platform to consist of different roles, rather than different sides: rather than one user being on one side of the platform all the time, the user is changing through different roles at different times. This aligns with recent argumentation by Choudary (2013).

For business model literature and the emergent stream on user-centered business models (Hienerth et al., 2011) this implies that user-centered companies are likely to have various business models to the different user roles. Recall Teece (2010)'s definition of the business model as the way the company creates, delivers and captures value. The value created, delivered and captured is different for each of the different user roles within Threadless, not to mention within the user roles themselves (e.g. an art student is likely to derive a different value from contributing to Threadless compared to a professional graphic designer). Thus Threadless seems to connect various business models within the overarching business model of being a community based design company. This seem largely to stem from the fact that the users do not only derive value from the utility of a certain product, but also through the effects¹⁶ associated with the opportunity to engage with and contribute to the firm and the other users (Hienerth et al., 2011). Threadless can influence these effects, by providing opportunities such as the Made Shops, but eventually it is the individual user who defines what value is derived from engaging with and contributing to Threadless. Recent literature on business model portfolio (Sabatier, Mangematin, & Rousselle, 2010; Casadesus-Masanell & Tarzijan, 2012) is likely to contribute to this implication. Furthermore, similar to findings in prior research (Shah, 2006; Bagozzi & Dholakia, 2006), the motivation and value the individual user derives from engaging with, and contributing to, Threadless is likely to change over time. As the motivation for contributing to Threadless evolves, so does the value derived from engaging

¹⁶ These effects include enjoyment, learning, firm and peer recognition, but also the ability to belong to certain human aggregate.

with Threadless, thus the business model appears to be a dynamic construction, at least from the viewpoint of the individual user.

Regarding user innovation literature this research complements the recent literature on ecosystem companies that continuously and systematically leverage on contributions from their users (Keinz et al., 2012; Parmentier & Mangematin, 2013), by suggesting indications for how the integration of the users subsequently influence business model innovation. One important suggestion to this research stream is that it seems beneficial not to think of the users as one coherent community, but rather as series of sub-communities. Similarly, the engagement of the users appears to be an interactive process rather than a linear process, thus supporting recent argument by West & Bogers (forthcoming). Furthermore, supporting the suggestion of Parmentier and Mangematin (2013) and Keinz et al. (2012) it seems it is the task of the focal company to facilitate the collective innovation process and to ensure the profitability and growth of the company. Finally, although Threadless' ecosystem consists of a multitude of different users who undertake various and changing roles, it appears it is important still to consider different segments within each of the different user roles: to account for the motivation of each single user would hardly be possible and probably not necessary. When engaging with their users, Threadless mainly listens to their artists who submit the designs (Nickell, 2013a).

5.3 Limitations

Various limitations are identified in this research. First of all the limitations are due to the nature of the explorative single case study approach used for this research, which makes external validity difficult to attain (Yin, 2009). Other methodological limitations stem from being a single researcher and from the case of Threadless itself. When collecting and coding data, multiple investigators are often an advantage, as having more researchers can enhance the creative potential of the study and increase confidence in findings when there is convergence between their observations (Huberman & Miles, 2002). When only one researcher is collecting and reducing the data, the risk of the study to be subject to

misrepresentations is increased. Well aware of this risk, the researcher has engaged with the advisor, paid close attention to data triangulation and asked for third party opinions.

Regarding the case of Threadless, it was not possible to access any quantitative data. Quantitative data is useful for indicating relationships between the data and also decrease the chance of the researcher to be carried away by vivid qualitative data (Huberman & Miles, 2002). Having had access to quantitative data thus would have increased the construct validity of the study. Furthermore, it was not possible to conduct any interviews with suppliers or partners. Hence, the study mainly relies on data from people who are expected to have a positive opinion on Threadless and their business model innovation. Also the interview conducted with Nickell had a short duration of approximately 30 minutes and the data gathered from the users mainly stem from active users, especially users on the company hosted forum and blog. However, it should be noted that the users should be less biased and that publicly available non-edited prior interviews were identified and transcribed to strengthen data triangulation and to address the lack of internally conducted interviews. Also, no field visits were conducted and the interviews were conducted through Skype, due to geographic distance, thus not providing the same observational richness as face-to-face interviews.

Furthermore, Threadless did not abandon their community based T-shirt company model when they became a community based design company: Partnerships and new product categories thus did not substitute the initial business model, but was rather added as an extra option in some sort of business model portfolio. Finally, although the users self-select to contribute to the platform, the artists do value the monetary reward of being printed, thus they were not completely without financial incentives.

5.4 Further research

Obviously it would be interesting to address the methodological limitations elaborated in the previous part through a multi-case study with access to quantitative data. Such a research could potentially explore differences in various types of user-centered business models. For example, through the exploration of the different platform models identified by

Boudreau and Lakhani (2009) and mentioned in the literature review. Another and related avenue might be to explore the influence of platform governance, as Shah (2006) shows that users behave differently in open source and gated source communities. Furthermore, it would be interesting to see such a research conducted with at least one case that does not qualify for being an ecosystem where the users are continuously and systematically integrated. Hereby the research might explore how users influence business model innovation differently when they are only demanding solutions compared to when they have a dual role. For example, it is likely that users as demand of solutions still constrain business model innovation through, for example, perceived benefits and the values of new partners. Such a research could also take into account the fluidity of virtual communities suggested by Faraj et al. (2011).

Furthermore, throughout the research process various interesting research fields have been identified. These are outside the scope of this research and would require the researcher to study them separately. One such study could systematically explore how users' dual role influences the different opportunities and barriers for business model innovation identified in the literature review. Similarly, research could systematically explore how users' dual role influence the different phases¹⁷ of business model innovation identified by Massa and Tucci (forthcoming). Or further explore how users might provide a push/pull for business model innovation. For example, the Made shops were introduced as some sort of push from certain users who grew out of the initial business model.

Another interesting research would be to explore how it might be possible for certain user-centered business models to allow users to evolve through various business model stages within the company. In each stage the value gained from participating with Threadless is different as well as what Threadless offers the user. In other words, to explore how the users in such user-centered business models might go through some sort of business model

¹⁷ As mentioned in the literature review, Massa and Tucci (forthcoming), define business model innovation as the activity of creating, implementing and validating a new business model.

life cycle where the company needs to manage them differently as they evolve through various phases. At Threadless one business model evolution is suggested by the type of user who joins Threadless without strong skills in graphic design, but overtime becomes very successful and grows out of the solutions provided by Threadless.

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- (2013b): Interview from the 7th annual Threadless Family Reunion: <http://bit.ly/19ezJ70>

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- (2013b): Interview with Bytes over Bagels: <http://bit.ly/16E1Whu>
- (2012): Presentation at Samplify Festival: <http://bit.ly/16uL7fM>
- (2010a): Interview with FearlessQA: <http://bit.ly/15xCdrI>
- (2010b): Interview with Bob Andelman: <http://bit.ly/19E79sB>
- (2009): Interview at Web2ExpoSF: <http://bit.ly/16E35FN>
- (2004): Written interview in Crowdozen: <http://bit.ly/1bbM0bq>

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- (2011a): Interview with Benzinga Radio: <http://bit.ly/196C9PS>
- (2011b): Interview with Business insanity: <http://bit.ly/1bgRI fz>

Threadless Blog

- (2013): Thanks for coming to the 7th annual family reunion: <http://bit.ly/18uUry9>
- (2010): Thanks for Threadless, everyone!: <http://bit.ly/16NP5Ky>

- (2009): Thoughts on huge retailers: <http://bit.ly/19Epcz3>
- (2007a): Introducing critique on Threadless! <http://bit.ly/18uejzn>
- (2007b): Chicago store sneak peek #5: <http://bit.ly/18uEshw>
- (2006): Submission terms – Updated: <http://bit.ly/187Kg1L>

Threadless Forum

- (2012a): What do Threadless partnerships mean for artists?
<http://bit.ly/1dNEyEm>
- (2012b): Why does Threadless exists?: <http://bit.ly/1h7BtPp>
- (2012c): A Threadless Petition – The new artist agreements are BAD! Let's keep the rights to our work! <http://bit.ly/1eLGEYq>
- (2012d): Threadlesss Guide (4): <http://bit.ly/1405zoC>
- (2010a): Threadless Glossary: <http://bit.ly/1ftD5aD>
- (2010b): Threadless in Nordstrom: <http://bit.ly/1eLixnR>
- (2009): Threadless design on other products: <http://bit.ly/1dNFNDq>

Appendix

1. List of relevant Threadless blog and forum posts
2. List of Threadless related articles in magazines and newspapers
3. Interview guideline
4. Short background description of key employees and users used in the thesis

1. List of relevant forum and blog posts

Type	Title	Year	Started by	Link
Threadless Blog	Submissions terms - updated	2006	Threadless	http://www.threadless.com/info/blog/59201/submission_terms_updated
Threadless Blog	ANNOUNCING A PRIZE INCREASE, MORE \$\$\$ FOR REPRINTS AND THE ALUMNI CLUB!	2007	Threadless	http://www.threadless.com/info/blog/241614/announcing_a_prize_increase_more_for_reprints_and_the_alumni_club?page=4
Threadless Blog	Introducing critique on Threadless!	2007	Threadless	http://www.threadless.com/info/blog/187901/introducing_critique_on_threadless
Threadless Forum	Threadless design on other products	2009	Threadless	http://www.threadless.com/forum/post/533513/threadless_designs_on_other_products/
Threadless Forum	Threadless in Nordstrom	2010	User	http://www.threadless.com/forum/post/622840/threadless_in_nordstrom/?page=3
Threadless Blog	Thanks for Threadless, everyone!	2010	Threadless	http://www.threadless.com/info/blog/643598/thanks_for_threadless_everyone
Threadless Forum	Threadless Glossary	2010	Users	http://www.threadless.com/play/forum/post/608855/threadless_glossary_of_bloggers_terms_/
Threadless Forum	For those curious: Behind the scenes info on Atrium	2011	Threadless	http://www.threadless.com/forum/post/737242/for_those_curious_behind_the_scenes_info_on_atrium/
Threadless Forum	What do Threadless partnerships mean for artists??? Update: Gap is live!	2012	Threadless	http://www.threadless.com/forum/post/792937/what_do_threadless_partnerships_mean_for_artists_update_gap_is_live/?page=3
Threadless Blog	Threadless + Gap = T-shirt mania!	2012	Threadless	http://www.threadless.com/info/blog/801647/threadless_gap_tshirt_mania
Threadless Forum	Why does Threadless exists	2012	Threadless	http://www.threadless.com/play/forum/post/806919/why_does_threadless_exist/?page=3
Threadless Forum	A Threadless Petition - The new artist agreements are BAD! Let's keep the rights to our work!	2012	User	http://www.threadless.com/forum/post/969529/a_threadless_petition_the_new_artist_agreements_are_bad_lets_keep_the_rights_to_our_work/
Threadless Forum	We're on our way to Vegas to find even more opportunities for artists!	2013	Threadless	http://www.threadless.com/forum/post/975652/were_on_our_way_to_vegas_to_find_even_more_opportunities_for_artists/
Threadless Forum	Att.: Threadless	2013	Users	http://www.threadless.com/forum/post/976986/attn_threadless/?page=2
Threadless Forum	Thoughts on huge retailers	2009	Threadless	http://www.threadless.com/profile/1/skaw/blog/468492/Thoughts_on_huge_retailers/
Threadless Forum	Threadless Guide (4)	2012	User	http://www.threadless.com/play/forum/post/922932/threadless_guide_4/
Threadless Blog	Chicago store sneak peak #5: new tee Fridays!	2007	Threadless	http://www.threadless.com/info/blog/256299/chicago_store_sneak_peek_5_new_tee_fridays
Threadless Blog	STP Brainstorming	2010	Threadless	http://www.threadless.com/info/blog/647239/stp_brainstorming
Threadless Blog	Holy Crap, Big News!	2006	Threadless	http://www.threadless.com/info/blog/83711/holy_crap_big_news
Threadless Blog	Threadless + Griffin = Awesome iPhone cases	2009	Threadless	http://www.threadless.com/info/blog/525922/threadless_griffin_awesome_iphone_cases
Threadless Blog	New Threadless Kids	2009	Threadless	http://www.threadless.com/info/blog/484431/new_threadless_kids_exclusive_designs
Threadless Blog	Exclusive Designs	2009	Threadless	http://www.threadless.com/info/blog/484431/new_threadless_kids_exclusive_designs
Threadless Blog	Thanks for coming to the	2013	Threadless	http://www.threadless.com/info/blog/97610

	7th annual family reunion			3/thanks_for_coming_to_the_7th_annual_threadless_family_reunion
Threadless Blog	Regarding the sale of Threadless T-shirts on the blogs	2006	Threadless	http://www.threadless.com/info/blog/91095/regarding_the_sale_of_threadless_shirts_on_the_blogs
Threadless Forum	Threadless causes	2011	Threadless	http://www.threadless.com/forum/post/683551/threadless_causes/
Threadless Forum	Exposing scores on the submission pages	2011	Threadless	http://www.threadless.com/forum/post/674832/exposing_scores_on_the_submission_pages/
Threadless Forum	Threadless Spark	2010	Threadless	http://www.threadless.com/forum/post/578696/looking_for_feedback_threadless_spark/
Threadless Blog	Announcing the Threadless artist page! New Programs	2009	Threadless	http://www.threadless.com/info/blog/429825/announcing_the_threadless_artists_page_new_programs
Threadless Blog	New Naked & Angry products launched	2009	Threadless	http://www.threadless.com/info/blog/427606/new_naked_amp_angry_products_launched
Threadless Blog	Announcing the Seletseries.com and Typetees.com	2008	Threadless	http://www.threadless.com/info/blog/396777/announcing_theselectseriescom_and_typeteescom
Threadless Blog	Announcing all new pricing and new Thriftees sale tees	2008	Threadless	http://www.threadless.com/info/blog/378920/announcing_all_new_pricing_and_new_thriftees_sale_tees
Threadless Blog	Announcing TheSelectSeries.com and Typetees.com	2008	Threadless	http://www.threadless.com/info/blog/396777/announcing_theselectseriescom_and_typeteescom
Threadless Blog	Announcing... Twitter tees by Threadless	2009	Threadless	http://www.threadless.com/info/blog/459934/announcing_twitter_tees_by_threadless
Threadless Blog	Announcing 3 new staff picks	2009	Threadless	http://www.threadless.com/info/blog/465140/announcing_3_new_staff_picks
Threadless Forum	Have you scored 40,000+ subs?	2011	Users	http://www.threadless.com/forum/post/672009/have_you_scored_40000_subs_congrats_leslee_200000_votes/
Threadless Blog	Announcing new sizes, new colors and new prices!	2008	Threadless	http://www.threadless.com/info/blog/316050/announcing_new_sizes_new_colors_and_new_prices
Threadless Blog	A big, warm welcome to our newest employee!	2008	Threadless	http://www.threadless.com/info/blog/341063/a_big_warm_welcome_to_our_newest_employee
Threadless Blog	Proudly presenting... Threadless prints!	2008	Threadless	http://www.threadless.com/info/blog/344197/proudly_presenting_threadless_prints

2. List of Threadless related articles in magazines and newspapers

Media	Title	Date	Link
Inc Magazine	The Customer is the Company	Jun-08	http://bit.ly/1baMIVL
Fast Company	Threadless Atrium: Expanding The Reach	May-11	http://bit.ly/15ZPmdw
Chicago Tribune	Of Community-Based Design	Aug-10	http://bit.ly/GGkcBr
Bloomberg BusinessWeek	Threadless tests chain store waters	Nov-07	http://bit.ly/19z7T6k
Chicago Magazine	Threadless: From clicks to bricks	Jun-12	http://bit.ly/1aK1Qf
New York Times	How Jake Nickell Built His Threadless Empire	Jul-07	http://nyti.ms/15ZPYQi
Forbes	Consumed: Mass appeal	Jul-10	http://onforb.es/1a9YIo8
NBC Chicago	Need To Build A Community? Learn From Thraedless	Jun-12	http://bit.ly/1bYLNbR
Business Insider	How the Threadless/Gap Partnership is Faring	Jan-11	http://read.bi/15mP1o3
Fast Company	Three Months In	Jan-11	http://bit.ly/19gd0Vd
NBC Chicago	Meet The Coolest Dude On Earth	Mar-12	http://bit.ly/17mwpB0
NBC Chicago	The Company as Community: Threadless puts everyone in charge	Feb-12	http://bit.ly/1cuMInm
Crowndozen	Threadless Launches T-Shirt Line at Chicago Gap	Oct-04	http://bit.ly/1bbM0bq
Wired	Threadless Partners with Gap	May-13	http://bit.ly/1bgUL7n
	Interview: Threadless		
	How Disney and Threadless Built a 200K-Person Design Team		

3. Interview guideline

Thank you very much for agreeing to this interview.

First of all, I would like to ask for your permission to record this interview. The record will only be used so I can transcribe the interview in order to systematically analyze the data. If this is okay, I will send the transcription to you tomorrow, so you have the possibility to check through your answers, and of course I will not distribute the transcript to anyone else. Also, if you prefer, I can send my thesis to you prior to submitting it, so you can double check that I do not miscommunicate anything.

As explained in the initial email, my interest lies in Threadless' user-centered business model, where your users are an essential element of your business and are acting as both suppliers and demand. More specifically, I am interested in how your users influence business model innovation, which in my definition relates to how you change the way the firm creates, delivers and captures value.

- As a start, could you briefly explain how your current business model works? And to which extent users are a part of your business model?

Since you started Threadless, you have clearly experimented with some changes to your business model, such as new product categories and distribution channels, either done internally or together with a partner.

- In your view, what are the major changes in your business model since the time you founded Threadless and now?
- Why did you do these changes and how has it influence the role of the users?

- What barriers and opportunities for business model innovation have you experienced by the fact that users are a vital part of Threadless?
- How did you use the responses you gained from the community when asking them in different blog/forum posts about Threadless design on other products, and new retail options? What was your motivation for asking the users?

Now I have some questions regarding the Gap partnership.

- You have previously declined to retail the community designed prints in Target and twice in Urban Outfitters, why did you approve Gap? What made Gap different?
- What did you experience in terms of your users' reaction to the Gap partnership? And did you expect different reactions?
- To what extent did you involve the users in the partnership?

If not addressed by Jake Nickell:

- The users' perceived benefit of the partnership/business model innovation

In your experience, what part of the partnership did the users perceive beneficial or non beneficial for themselves? How did this influence the business model change and your users' reactions?

- The users' perceived involvement in Threadless/the business model innovation

In your experience, how did it influence the reactions of the users if they perceive themselves as a part of Threadless, as some sort of external employee?

How did core members react compared to peripheral members?

- The users' perceived responsibility to the community

In your experience, did the partnership influence the users' relationship and interaction with each other? If so, how?

- The users' perceived identification with Threadless/the community

What considerations did you do regarding the values of GAP compared to Threadless/the Threadless community?

How do you think the values of Threadless influence business model innovation? For example, it might impose some restrictions on pricing, while at the same time the users might accept more changes as they trust Threadless

- Quantity and diversity

To what extent have the users provided ideas and new options for your business model?

How is experimenting with the business model different with more than 2 million members compared to in the beginning?

Finally

Thank you for participating and providing your insights and time. Before we finish, I would just like to ask, if you can recommend me anybody, who like you, could help me understanding users dual role in such a business model of yours, and what it means when you change your business model? For example users, people you work with at Threadless, but also in terms of partners and suppliers.

Once again, thank you so much. I will send you the transcript tomorrow. Have a nice day.

4. Background descriptions of key employees and users

Jake Nickell

Co-founder of Threadless in 2000. CEO from 2000-2008 and again from 2012 until today. In the period 2008-2012 Nickell was CSO with special focus on the community. He was 20 years old when starting Threadless as a hobby and studied part-time as an art student at college. Next to the studies he was developing websites for various clients. He never finished his college degree.

Twitter: @skaw // Threadless username: Skaw

Tom Ryan (Thomas Ryan)

CEO from 2008-2012. He was brought to Threadless to ensure growth including working on evolving Threadless to be more than a community based T-shirt company. Furthermore, he had some skills that was not in the team as well as shared the vision for the company. He was introduced to Nickell through a common friend who also is an investor in Threadless. His background before joining Threadless was mainly from the digital music industry. Even though he has left his position as CEO at Threadless he still serves as a board member.

Twitter: @thomasryan // Threadless username: The-Tom

Jeffrey Kalmikoff

CCO from 2003-2009. Kalmikoff was an early employee at Threadless where he was focused on the overall creative direction and product development for the company. He joined the company while it was still a side project and was employed until Threadless had been labelled most innovative small company in the U.S. by Inc. Magazine in 2008. Before joining Threadless Kalmikoff had his own design store and before that worked at small design agency for two years. While he studied both architecture and graphic design in college, he never graduated.

Twitter: @jeffrey

Crystal Greig

Joined Threadless in March 2008 after a friend/co-worker/co-university student told her about the T-shirts. While she was drawn to Threadless by the often humorous T-shirts for sale on the site, it was the community that got her hooked. In 2013 she was awarded voter of the year with an average of 132.7 votes a day, but she has never submitted any designs to Threadless, nor is she planning to submit any. It wasn't until a community member posted in the forums that he wanted to start voting more and encouraged others to join, that Greig regularly started voting.

Threadless username: Sarcasticatbest

Budi Satria Kwan

Joined Threadless in 2007 and it took him two years to receive his first print. Since then Kwan has been printed 70 times not including the 13 prints he has for the Gap partnership and is the artist on Threadless with the most designs printed. Kwan is from Indonesia and does not have any formal educational background within graphic design/art. Today he lives from being a freelance designer.

Threadless username: Radiomode