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Exploring the Effects of Leveraging Users in the Process of Business Model Innovation

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Abstract

In an ever-changing environment driven by new technology, competition and new user preferences, firms must continually develop and adapt their business model to stay competitive. However, to change and develop a business model is difficult and requires resources to succeed. The task is all about understanding the user, what they want, how they want it and organize the firm to deliver and capture value simultaneously. However, previous research has acknowledged the problem of truly understanding users' need and thus how to change the business model accordingly. Similar problems have been found in the development of new products and services. A successful solution has been to involve users into the innovation process and let them contribute with both need- and solution-based information. This study explores the effects of involving users into the business model innovation process, thus investigating whether users can have a similar role as in new product and service development. In the context of the digital entertainment industry, an idea generation contest was hosted in cooperation with Sweden's most popular podcast. This method permitted users to propose ideas of how the podcast should change to improve the processes of creating, delivering and capturing value.

The study reveals that users can make a valuable contribution by activating both need and solution-based information. The findings of this study indicate that users have the capability of proposing ideas on different aspects of the business model, often of great quality and with a large degree of change. Furthermore, the antecedence explaining why some users are better at proposing ideas of great quality and large degree of change is similar to theoretical concepts found in users' innovation in new products and services. The study contributes with initial evidence that users can provide important guidance and ease the process of business model innovation.

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1 Introduction

In an ever-changing environment driven by new technology, changes in customer preferences and new regulations, firms must continually develop and adapt their business model to stay competitive (Teece, 2007; Johnson, Christensen & Kagermann, 2008; Teece, 2010; Wirtz, Schilke & Ullrich, 2010). Recent development in strategy literature concludes that a firm's ability to demonstrate timely responsiveness towards market changes is essential to become a winner in the global marketplace (Teece, Pisano & Shuen, 1997; Chesbrough, 2007; Teece, 2007; Teece, 2010; Casadesus-Masanell & Ricart, 2010). Thus firms have to develop the ability to act timely and responsively in order to capture new opportunity, often referred to as dynamic capabilities (Teece et al., 1997; Teece, 2007). In the process of developing these dynamic capabilities, it is essential for a firm to understand their own business model and how to adapt it to changes accordingly (Teece, 2007; Teece, 2010). Teece (p. 1330, 2007) even states:

"The capacity an enterprise has to create, adjust, hone, and, if necessary, replace business models is foundational to dynamic capabilities"

To create, adjust, hone or replace a business model is usually referred to as business model innovation (Teece, 2010). The concept of business model innovation has increasingly received more attention since scholars have recognized it's of strategic importance as a source of creating competitive advantage (Teece, 2007; Chesbrough, 2010; Teece, 2010; Zott, Amit & Massa, 2011; Sako, 2012). Scholars have even concluded that business model innovation is the most sustainable form of innovation and has significant impact on a firm's ability to generate supernormal profits (IBM Global Business Services, 2006; Sosna, Trevinyo-Rodŕıguez & Ramakrishna Velamuri, 2010; Teece, 2010; Chesbrough, 2010; Hartmann et al., 2013).

Research has often pointed out the straight path to succeed in business model innovation, using examples such as Xerox, Dell, Apple and E-Bay (e.g. Chesbrough, 2003; Johnson et al., 2008). However, the path is neither straight nor clear. Sosna et al. (2010) argue that many firms find the process of business model innovation very uncertain and risky. Im and Cho

(2013) also highlight the problem that managers often find it difficult to identify, evaluate and select new business models. Beyond the uncertainty of the process itself, firms cannot bear the risk of getting business model innovation wrong (Chesbrough, 2010; McGrath, 2010; Sosna et al., 2010). Sosna et al. (2010) conclude that many firms do not have the luxury to absorb the financial cost nor are they willing to take the risk of losing market share if failing with business model innovation. Chesbrough (2010) argues in line with Sosna et al. (2010) and concludes that it is essential for firms to develop the capabilities to ease the process to pursue successful business model innovation.

Scholars have concluded that the single most important factor to succeed with business model innovation is to truly understand users' need. By truly understanding the users' need, firms will know what users want, how they want it and therefore how the firm can organize itself to meet those needs, get paid for doing so and make a profit (Teece, 2007; Chesbrough, 2010; McGrath, 2010; Sosna et al., 2010; Teece, 2010). Scholars have therefore concluded that the user need must be the stem when designing a firm's business model (Chesbrough, 2007; Teece, 2007; Chesbrough, 2010; McGrath, 2010; Sosna et al. 2010; Teece, 2010; Zott & Amit, 2011; Im & Cho, 2013). Sosna et al. (p. 403, 2010) adds and further explains the importance of truly understanding the customers for business model innovation by:

"Its [business model] successful design and continuous development is - to a large degree - fueled by using imagination and experimentation to find out what your current (or potential) customers want, and then organizing yourself to give it to them, while retaining a sufficient proportion of it for you to stay in business."

However, truly understanding users' need is easier said than done. Need-based information is often sticky which makes it difficult and costly to transfer it from the users to firms (von Hippel, 1998; Ogawa, 1998; von Hippel, 2005). Teece (2007, 2010) states that the need-based information that should fuel the design of new business models is highly tacit and traditional market research methods are not enough to transfer the need information from the users to the firm.

Conclusively, managers have to make some specific inquiries to better understand the user's need and how to deliver the value proposition to a chosen target group to succeed with business model innovation (Teece, 2007; Chesbrough, 2010; Sosna et al., 2010; Teece, 2010). Similar issues of truly understanding users' need, as faced in business model innovation, have also been faced in new product and service development. Firms often spend an extensive amount of time and money on research and development (R&D) to understand users' need and thus ensure a product's success (Von Hippel, 1998). Still many firms fail (Cooper & Kleinschmidt, 1994). In recent time some firms have become more successful in solving the problem of identifying, exploring and selecting new product or service development through integrating users in the innovation process (Von Hippel, 2005; Lettl, Herstatt & Gemuenden, 2006; Ogawa & Pillar, 2006; Pötz & Schreier, 2012; Nishikawa et al., 2013). Scholars argue that when a firm involves users into the innovation process, firms will become better off by truly understanding the customers' need and how to deliver an appropriate solution (Von Hippel, 2005; Ogawa & Pillar, 2006; Dong, Evans & Zuo, 2008). The theoretical explanation for the success is that users possess both need- and solution-based information. Users are therefore, in many cases, better than firms at understanding what causes the dissatisfaction with the current solution available on the market and they have the capability to propose solutions to solve the problem (von Hippel, 1998; Ogawa, 1998; Lüthje, 2005).

The benefits of integrating users into the innovation process have also been confirmed in several empirical studies. Research shows that user involvement in new product and service development can result in lowering product failure (Franke & Schreier, 2002; Franke, Von Hippel & Schreier, 2006, Ogawa & Pillar, 2006), creating more innovative products (Lettl et al., 2006; Keinz & Prügl, 2010; Nishikawa, Schreier & Ogawa, 2013), of higher quality (Pötz & Schreier, 2012) and reducing time to market (Von Hippel, 1998; Ogawa & Pillar, 2006). Leveraging users' valuable contributions has further resulted in a new generation of various business models characterized by user value creation aspects, such as crowdsourcing and open collaboration (e.g. Wirtz et al., 2010; Hienerth et al., 2011). Prahalad and Ramaswamy (2004) further explain that firms can create new forms of competitive advantage by developing capabilities of how to integrate users in the innovation process and thus generate a better understanding of users' actual need. Although scholars and practitioners have

illuminated both the success of user involvement in new product and service development (von Hippel, 1986; Prahalad & Ramaswamy, 2004; Von Hippel, 2005; Franke et al., 2006; Pillar & Walcher, 2006; Nishikawa et al., 2013) and the importance of understanding users' need in business model innovation (Chesbrough, 2010, Teece, 2010, Sosna et al., 2010, Im & Cho, 2013), little attention has been dedicated to exploring the consequences of user involvement in the process of business model innovation. If users can be involved in the business model innovation process on the same premises as product and service innovation, they could be a valuable source of information. Furthermore, involving users in the process of innovating a firm's business model could potentially lead to the proactive discovery of unexplored opportunities at the same time as diminishing risk as well as uncertainty of not delivering what the users need, thus creating a competitive advantage by capturing and delivering the market's real need. Our aim is therefore to bridge the gap between the two streams of literature of user innovation and business model innovation by answering the following research question:

What are the effects of user involvement in the business model innovation process?

To explore the research gap and question of this study, data was collected from an idea generation contest thrown together with Sweden's most popular podcast, Filip and Fredrik's podcast. The data was collected in two waves. In the first wave, users of the podcast submitted proposals of how to improve the business model around Filip and Fredrik's podcast to generate more value to listeners, partners and Filip and Fredrik's podcast. In addition to the proposals, data on key characteristics was collected. In the second wave, users voted on proposals submitted by other users to assess the quality of the proposals.

The findings of this study indicate that users could have a similar role and be of similar importance for business model innovation as for new product and service development. The main finding was that users are able to use both need- and solution-based information to make a valuable contribution to business model innovation. The data reveal that 65 % of the respondents had one or more ideas of how to improve the podcast. These were evenly distributed on all the business models' building blocks. The result shows that 21 % of these proposals can be considered radical business model innovation and 44 % were more of

incremental ideas. Regarding the quality of ideas, 71% of all proposals were voted to be as good or better than the current business model around Filip and Fredrik's podcast. Furthermore, the findings of this study indicate that the antecedence explaining why some users perform better than others in terms of quality and degree of changes is similar to important theoretical drivers found in user involvement in new product and service development, such as lead userness, personal creativity and experience.

The findings of this study have both managerial and theoretical implications. From a managerial perspective, the findings of this study imply that users could ease the process of business model innovation resulting in better business model design and lower risk. Users can have a very important role of guiding managers in their decision of how to innovate the firm's business model. From a theoretical perspective, our findings contribute to the theoretical development of user innovation, business model innovation and open innovation. To the author's knowledge, this is the first study exploring the effects of involving users into business model innovation. This study also extends the theoretical development by investigating the unexplored area of involving users into business model innovation. The findings indicate that users have greater potential than has been previously shown and that users can do great things beyond new product and service development.

2 Literature review

To provide a better understanding of the research gap and question of this study, it is important to provide an overview of the previous research done within the subject. The literature review of this study aims to firstly provide a background to why it is important for firms to explore innovation. Secondly, this chapter discusses how the open innovation model has changed the way managers and scholars think of innovation eco-systems, where users have an important role. Thereafter, the theoretical development and the empirical findings of firstly user involvement in the innovation process and secondly business model innovation will be discussed. The literature review leads up to the research gap where the different streams of literature are discussed together to better understand the scope of this study.

2.1 The Search for Innovation – A Matter of Surviving

A firm's ability to generate innovation has become central in order to adapt and reinvent itself in an ever-changing market (Katila & Ahuja, 2002). Scholars have through empirical research demonstrated how a firm's capability to generate innovation has a positive impact on its ability to take market share, create market value and capability to adapt to market changing conditions (Banbury & Mitchell, 1995; Charney & Devinney, 1992). As a result, both scholars and practitioners have devoted more resources to investigating how firms can become more innovative (Fleming & Sorenson, 2004). Despite the fact that firms devote more resources into innovation activities and clearly understand the consequences of not generating innovations as well as the attractiveness of doing so, firms still find it difficult to develop innovations (Katila & Ahuja, 2002)

A central part of a firm's innovation process is the search for new ideas with commercial potential (Laursen & Salter, 2006). The process involves searching both internally as well as externally for ideas to exploit new opportunities (Laursen & Salter, 2006). Ideas with commercial potential often stem from an iterative problem-solving process where a firm uses new or existing knowledge to solve a specific problem (Katila & Ahuja, 2002; Fleming & Sorenson, 2004; Laursen & Salter, 2006). Scholars within organizational learning usually

classify a firm's search for innovation into explorative or exploitative search. Exploitative search refers to when a firm reuses existing knowledge to provide new solutions whereas explorative search is when a firm explores new knowledge to provide an alternative solution (March, 1991; Katila & Ahuja, 2002; Fleming & Sorenson, 2004). Scholars have concluded that firms need to engage in both exploitative and explorative search since each has positive and negative effects on a firm's innovation capabilities (March, 1991; Katila & Ahuja, 2002).

The positive aspects of an exploitative search are primarily two-fold. Firstly, an exploitative search reduces the amount of mistakes made in the search process. By using the same knowledge repeatedly, a firm can both reduce the risk of errors as well as develop routines in the search process, which makes it continuously more reliable (Katila & Ahuja, 2002), resulting in a more rigid search process. However, it also makes it more difficult to adapt another search strategy if necessary (Nelson & Winter, 1982; Katila & Ahuja, 2002). Secondly, a firm develops a deeper understanding by reusing the same knowledge (Katila & Ahuja, 2002; Fleming & Sorenson, 2004). By developing deep understanding within an area, the firm can better understand relationships that might not be apparent to less experienced firms (Katila & Ahuja, 2002). However, Katila & Ahuja (2002) also state that overexploitation of already existing knowledge has a negative effect on a firm's innovation capabilities. The authors argue that there is a limit to the amount of innovation a firm can produce by reusing the same knowledge over and over again (Katila & Ahuja, 2002). Thus, firms will face a diminishing return by only reusing the same knowledge in the search for new commercial ideas, according to Katila and Ahuja (2002). As new technological trajectories develop, it is important to explore these since they may underpin the current competitive advantage (Christensen & Raynor, 2003; Afuah & Tucci, 2012). Firms may therefore face a very dangerous situation if they only create solutions based on existing knowledge.

The positive aspects of explorative search are that it enriches a firm's knowledge pool, according to Katila and Ahuja (2002). By integrating new knowledge into a firm's knowledge pool, it can combine different knowledge elements and find new solutions to existing problems. Thus, a firm's scope of new solutions becomes broader by integrating new

knowledge and can potentially generate more useful innovation (Fleming & Sorenson, 2004). However, it is usually costly and difficult for firms to integrate new knowledge (March, 1991; Katila & Ahuja, 2002). Thus, the risk of conducting an error when pursuing exploratory search is much higher. If firms are just exploring new knowledge, they are more likely to be less successful in generating innovations (March, 1991). However, even though theory suggests this, Katila and Ahuja (2002) did not find any proof of this in their study. Nevertheless, by balancing and conducting both types of search, firms explore new solutions while also economizing their existent knowledge (Katila & Ahuja, 2002).

Even though scholars point out the importance of balancing and conducting both types of search activities, firms have a tendency to lean more toward exploiting existing knowledge, rather than exploring new knowledge (Stuart & Podolny, 1996; Audia & Sorenson, 2001). Scholars explain this behavior, local search behavior, as a result of the restraint to prior experience (Nelson & Winter, 1982; Fleming & Sorenson, 2004). Nelson and Winter (1982) argue that firms are to a large degree affected by their heuristics and are therefore constrained in their search for innovation (Cohen & Levinthal, 1990). Firms create a cognitive frame based on prior experiences that sets the lens of how a firm understand and solve problems (Cyert & March, 1963; Afuah & Tucci, 2012). As concluded by Katila & Ahuja (2002), overexploiting knowledge has a negative effect on a firm's capability to innovate. Furthermore, developing knowledge is a matter of surviving since prior knowledge may be obsolete in a new context (Christensen, 1997; Katila & Ahuja, 2002). It is therefore very important for firms to develop ways to integrate new knowledge and information into their search for innovations (Cyert & March, 1963, Katila & Ahuja, 2002, Afuah & Tucci, 2012). A recent example of a company that fell victim to not developing their knowledge was Kodak. Kodak was disrupted by the fast-changing environment and did not have the dynamic capabilities to develop accordingly. This ultimately led to their bankruptcy in 2011 (The Economist, 2012).

2.2 The Era of Open Innovation

As today's business environment poses new demands, firms have to rethink their approach of how to explore new knowledge and search for innovations (Chesbrough; 2003; Chesbrough,

2006). The rapid technology development puts pressure on firms to explore a variety of different technological paths (Metcalfe, 1994), which forces firms to search both deep and widely in order to stay aligned with technology development (Laursen & Salter, 2006). In addition, the fast technology and market development makes it more difficult for firms to generate return on their innovation investment since technology solutions erode and new technology replaces them with better and cheaper solutions (Chesbrough, 2003; Chesbrough, 2006; Johnson et al., 2008). As a consequence, firms have started to engage in more open innovation models where internal and external knowledge can be leveraged within and outside the firm's boundaries (Chesbrough, 2003; Chesbrough, 2004; Chesbrough, 2006; Teece, 2007).

Search for innovation has traditionally been firm-bounded. The capability to develop innovations through internal search using own developed knowledge has been a key advantage to created competitive advantages and a very important strategic asset (Chesbrough, 2003; Chesbrough, 2004; Chesbrough, 2006; Teece, 2007). Chesbrough (2003; 2006) argues that shorter product lifecycles, faster technology development, increased R&D costs and mobility of knowledge, make it more difficult for firms to justify a firm-bounded innovation process. In addition, research suggests that a firm's openness to external knowledge will improve their ability to innovate (Nelson & Winter, 1982). External knowledge helps firm enrich their knowledge pool and thus obtain a broader spectrum of technology solutions. A broader spectrum of technology solutions provides firms with an opportunity to engage in several technology paths and they can therefore more easily adapt to technology changes. Chesbrough (2006) therefore proposes that firms have to adopt an open innovation process not only to absorb external knowledge but also to leverage existing knowledge outside the firm. He calls this an open innovation model and defines it as (p.1, Huizingh, 2010):

"The use of purposive inflows and outflows of knowledge to accelerate internal innovation, and to expand the markets for external use of innovation, respectively"

As illustrated in figure 1, the difference between the closed and open innovation process is how a firm is sourcing new ideas and how they develop these ideas. In a close process, the

firm just perform internal search where own ideas are developed into innovations. In the more open innovation process, the firm leverage external ideas and knowledge to develop own innovation but also use internal ideas or knowledge to be leveraged outside the firm's boundaries (Chesbrough, 2003). Thus, open innovation implies that a firm does not solely perform innovation within the firm, but in cooperation with other actors such as users, suppliers, competitors or research institutions (Laursen & Salter, 2006; Pillar & Ihr, 2009).

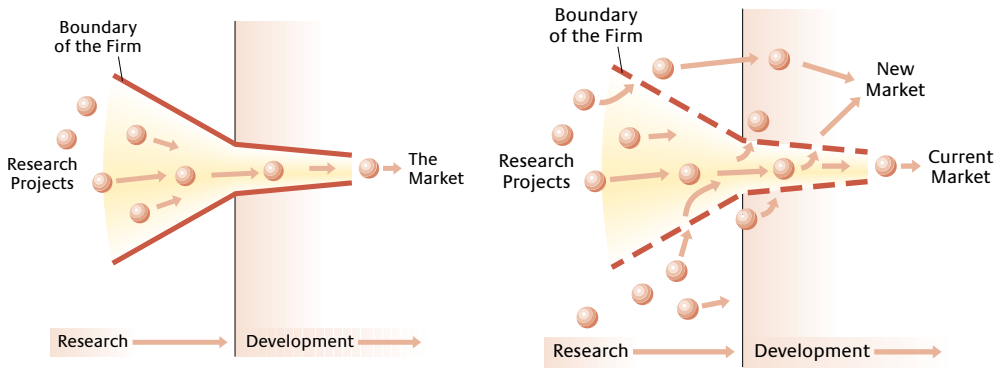


Figure 1: Chesbrough's open innovation model (p. 36, Chesbrough, 2003)

Several empirical studies support Chesbrough's call for a new paradigm of open innovation (e.g. Cohen & Levinthal, 1990; Sakkab, 2002; Laursen & Salter, 2006). Firms who include external actors in their innovation process will become more productive in their R&D in terms of lower development time and development cost (e.g. Alam, 2002; Gassman & Enkel, 2004; Huston, Larry & Sakkab, 2006), generate more novel solutions (e.g. Laursen & Salter, 2006; Franke & Pötz, 2006; Huston & Sakkab, 2006; Teece, 2007), and with higher success potential (Alam, 2002; Nishikawa et al., 2013). Huston et al. (2006) investigated the result of Procter & Gamle's open innovation engagement. They found that more than 35 % of the firm's innovation stems from external actors and increased their R&D productivity by 60 % (p. 61, Huston et al., 2006). Thus, scholars have proven that adapting a higher degree of openness into the search for innovation is important to leverage knowledge and stay aligned with market and technology trajectories.

2.3 User Involvement in the Innovation Process

Users and customers have traditionally taken a very passive role in the innovation process (von Hippel, 2005). Although it has been crucial to listen to the customers to understand emerging trends and needs, firms have been responsible for translating the trend or need into new products and services (Nishikawa et al., 2013). However, there are many benefits of involving the users into the innovation process and that they possess important information (Ogawa, 1998; von Hippel, 1998). Scholars have for a few decades studied the transition where the users have become more active in the innovation process (Pillar & Ihl, 2009). To better understand the users and their innovation activities, an extensive body of literature has developed an answer to why users are useful in the innovation process, why users innovate and what personality traits characterize users that innovate. The following section will present the state of the art literature regarding user involvement in the innovation process.

2.3.1 Why Users are Useful in the Innovation Process

The process of developing innovation is a very uncertain process and managers often find it difficult for firms to foresee the outcome. Firms invest an extensive amount of money, time and other resources in ensuring the success of new products and services and still many firms fail (Cooper & Kleinschmidt, 1994). However, firms can reduce the uncertainty and risk of failing by accessing information and thus better understand the conditions of the innovation process (Cassiman & Veugelers, 2006). Generally, the information required to lower the risk and uncertainty can be divided into two sources of information, need- and solution-based information (Ogawa, 1998; von Hippel, 1998; Cassiman & Veugelers, 2006; Pillar & Ihl, 2009). Research has found that users have a very important role in providing both need- and solution- based information (von Hippel, 1998; Ogawa, 1998; Pötz & Schreier, 2012; Chesbrough, 2005).

Need-based information is the information about the user preferences, motivation, desire and actual problem. As an innovator, need-based information and in-depth understanding of the user's operations are required to better understand how to solve the user's current problem. By having better access to the need-based information, the innovator can increase the

efficiency and lower the risk of failure in the innovation process since they can identify what causes the dissatisfaction with the current solution. However, an innovator also needs to have knowledge of how to provide a solution to satisfy the need. Solution-based information is the information about the technological possibilities and how to apply them to fulfill and satisfy the customer need (Ogawa, 1998; von Hippel, 1998; Pillar & Ihl, 2009).

Need- and solution-based information is often located on different physical locations (Ogawa, 1998; von Hippel, 1998). The need-based information is usually located outside the firm's innovation process and often possessed by users (Nonaka & Takeutchi, 1995). Firms must therefore transfer the need-based information from users into the innovation process to create successful innovations (Ogawa, 1998; von Hippel, 1998). Firms have usually relied on traditional market research methodologies to transfer the need-based information. However, many scholars have identified several weaknesses of traditional market research methodologies to truly grasp the need-based information (Pillar & Walcher, 2006). For instance, Pillar and Walcher (2006) state that market research delivers not much more than heterogeneous trends. The explanation why traditional market research methodologies fail is difficulties of transferring need-based information (Ogawa, 1998; von Hippel, 1998). Need-based information is usually very tacit, which makes it difficult for users to express what causes the dissatisfaction (Ogawa, 1998; von Hippel, 1998). von Hippel (1998) defines the transferability of information as high or low stickiness. Von Hippel (p. 630, 1998) describes the consequences of stickiness as:

> *"... the stickiness of a given unit of information in a given instance as the incremental expenditure required to transfer that unit of information to a specified locus in a form useable by a given information seeker."*

The stickiness of information will have an important role in terms of why users are useful and can make valuable contributions. When users find it difficult to express their need due to high stickiness (Ogawa, 1998; von Hippel, 1998) or when the firms do not have the absorptive capabilities to understand the users' need (Cohen & Levinthal, 1990), firms find it difficult to identify what causes the dissatisfaction with current solutions. As a result, managers tend to rely on assumptions about the market preferences and just perform revision on existing

products without solving the underlying problem (Pillar & Walcher, 2006). Ogawa (1998) found in his research that users tend to perform more innovations by themselves if the stickiness is high for the need-based information. Thus, when users have difficulties or when it is too expensive to transfer the information due to the tacit nature of information, users will rather provide the solution themselves (Ogawa, 1998). By involving users into the innovation process, and letting them partake in new product and service development, firms can more easily get access to the need-based information and understand what solution might ease the pain of the customers.

From a traditional point of view, the solution-based information has been possessed by firms since they have the skills and capabilities to perform design tasks more efficiently and with better quality compared to users (Moreau & Herd, 2010). According to Moreau and Herd (2010), firms usually have more resources to develop more sophisticated understanding of technology compared with users. However, several empirical studies have demonstrated that users are often very talented and often possess equal or better capabilities to provide solutions compared with professionals (e.g. Ogawa & Pillar, 2006; Pötz & Schreier, 2012; Nishikawa et al., 2013). For instance, Pötz and Schreier (2012) found in their study of baby products that users generate ideas of better quality compared to professionals. One explanation described by Kristensson, Gustafsson and Archer (2004) is that professionals are often constrained to their prior knowledge whereas users can apply new knowledge and technologies to solve the problem. Users can also possess experience from other industries (von Hippel, 2005; Hienerth et al., 2007) or other knowledge areas, which makes them better at proposing solutions (von Hippel, 2005).

When users possess both need- and solution-based information, they can make contributions that are truly valuable to firms. Nishikawa et al. (p. 161, 2013) even state:

”Users may have a competitive edge in idea generation over designers through their experience as consumers.”

Users understand their context and needs better than the supplier and when they have the knowledge of how to provide high quality solutions to solve the unsolved need, users should

be considered an important source to generate innovation (von Hippel, 1986; Ogawa, 1998; von Hippel, 1998; Lüthje, 2004; Lüthje et al., 2005; von Hippel, 2005; Franke, Schreier & von Hippel, 2006; Lettl et al., 2006; Pötz & Schreier, 2012).

2.3.2 What Drives Users to Innovate

To understand the dynamics of user innovation, it's important to understand the rationale for users to innovate (Lüthje, 2004). Researchers have found several variables explaining why users involve in innovation activities. The most predominate reason found in studies (e.g. von Hippel, 1976; Lüthje, 2004; Lüthje et al., 2005; Franke et al., 2006; Pillar & Walcher, 2006; von Hippel, 2005) suggests it is to fulfill a need that is not yet satisfied by existing solutions on the market. By using products and services, some users experience a discrepancy between expected and experienced performance leading to dissatisfaction. When the stickiness is too high for users to express their problem to suppliers, they have to perform innovation by themselves (Ogawa, 1998). By solving the underlying problem, users will profit directly from using a better product, which is the reason why users are motivated to innovate (Ogawa, 1998; von Hippel, 1998; Lüthje, 2004; von Hippel, 2005; Pillar & Walcher, 2006). Users will therefore engage in innovation activities if the benefit of improving an own solution is high enough. According to Lüthje et al. (2005), the cost of developing and prototyping own ideas is relatively low, which increases the likelihood for users to innovate.

Other than increased self-benefit of better solutions, scholars have found several other reasons why users engage in innovation activities. von Hippel (1986) as well as Foxall and Tierney (1984) suggest in their articles that lead users are attracted by potential financial benefits. However, both Lüthje (2004) and Franke et al. (2006) suggest in contradiction that financial benefits do not have a significant impact on the motivational factors that drive users to engage in innovations. In addition, Lüthje (2004) and von Hippel (2005) state that some users are not motivated by the outcome but rather by the process, thus, simply enjoying the process of developing.

2.3.2.1 Considerations when Involving Users in the Innovation Process

Some firms have been extremely successful in leveraging users and user communities in the search for innovations whereas others have failed (Franke et al., 2012). This raises the question why users are willing to contribute to some firms but refrain to do it with others. This has intrigued scholars who have investigated what causes the difference of success. Scholars have found several aspects and the most predominant factors that influence the success of involving users in innovation processes are; *motivation, fairness of the process* and *firm identification.*

The *motivations for* users to contribute freely with an idea or innovation to a firm have long interested many scholars. The motivation to contribute can be divided into intrinsic and extrinsic. Several studies have shown that users contribute with innovation and solution since they believe it's fun, challenging, and that they learn from the task. In other words, for self-fulfilling purposes without any direct return (Füller, 2006; Füller, 2010; Harhoff & Mayhrofer, 2010). It is often the task that is creating the engagement rather than the outcome from it. However, the trigger for intrinsic motivation is very personal (Füller, 2006). Extrinsic motivation is when the user is motivated by the outcome that is separable from the activity per se (Füller, 2006). Users can benefit from being involved in user involvement activities by either financial or non-financial benefits. Lerner and Tirole (2005) studied user development of open source software and concluded that users can create a reputation and send signals to venture capitalists or employers that might be beneficial in the long run. Thus, users have the opportunity to better position themselves within the network of their specific field.

However, even if firms incentivize users to contribute with their ideas, it has to be in relationship and in accordance with what they contribute (Franke et al., 2012). A *perceived fairness of the process* is therefore of essence. Franke et al. (2012) conclude that users are more willing to contribute if they perceive the involvement to be fair between the firm and the contributing user. They divide the perceived fairness into two different groups; distributive fairness and procedural fairness. Distributive fairness relates to the distribution of value between the users and the firm. Procedural fairness relates to the selection process

leading up to the distribution of value. They conclude that users require firms to give something back for their contribution such as intellectual property ownership or gain in reputation to participate in contests. Furthermore, they want to have transparency in the contest and understand selection criteria. Franke et al. (2012) therefore suggest that firms need to understand both what the users perceive they are contributing with and what they expect in return to facilitate as many contributors as possible.

User's identification with the firm also has a significant role in attracting users to contribute (Franke et al., 2012). Firm identification means to the degree a user feels a relationship with the firm (Ahearne et al., 2005). This derives from overlapping between the firm's and user's attributes and values (Dutton, Dukerich & Harquail, 1994). Previous research suggests that users with high firm identification often are more engaged in helping the firm in product evaluation (Dutton et al., 1994) or other activities favorable to the firm (Franke et al., 2012). Related to user involvement in the innovation process, the same pattern can be found. Gruner and Homburg (2000) state in their study that users that perceive a closer relationship between the firm and the users are significantly more likely to participate in user involvement activities. Franke et al. (2012) also found in their research on fairness, that stronger firm identification also affects the users to perceive the terms fairer compared with those with weaker firm identification. Hence, firms that have a closer relationship with their users are more likely to have an engaged crowd that will engage in innovation activities and perceive the terms of doing so as more fair (Gruner & Homburg, 2000; Franke et al., 2012). Conclusively, firms do not just develop routines for integrating users into the innovation process - they need to carefully design the process to create the right conditions that create an environment where users are willing to contribute.

2.3.3 What users innovate

From a traditional perspective, users' only role was to simply possess a need, which firms later identified and proposed a solution to. Therefore, users have not been perceived as a group having the capabilities to generate great innovations. However, from a contemporary perspective, scholars have identified a new role for users where they can contribute in the innovation process. (von Hippel, 2005)

Even if many users might express a need or a motivation to innovate, research has shown that users with certain characteristics are more suitable to generate new product or service ideas with commercial success potential (Franke & Shah, 2003; Lüthje, 2004; Lüthje et al., 2005; von Hippel, 2005; Franke et al., 2006; Schreier & Prügl, 2006). Scholars have found a segment of users with common characteristics where innovation activities of commercial value are concentrated – often called 'lead users'. Eric von Hippel introduced the concept of lead users in 1986 and has ever since been predominate in the development of the theoretical concept. The concept has been confirmed in many different studies and contexts such as sports equipment (e.g. Lüthje, 2004; Lüthje et al., 2005; Franke et al., 2006), medical equipment (e.g. Lüthje, 2003; Lettl et al., 2006), industrial products (e.g. Urban & von Hippel, 1988), software products (Franke & von Hippel, 2003) and librarian systems (Morrison, Roberts, and Midgely, 2004). Franke et al. (p. 302, 2006) defines lead users as:

"Lead users are defined as members of a user population who (1) anticipate obtaining relatively high benefits from obtaining a solution to their needs and so may innovate and (2) are at the leading edge of important trends in a marketplace under study and so are currently experiencing needs that will later be experienced by many users in that marketplace"

Scholars argue that lead users must expect a high benefit of their solution since they would not otherwise continue to invest time and money in developing innovations (Lüthje et al., 2005; von Hippel, 2005; Franke et al., 2006). The most important benefit, according to Lüthje (2004) and Franke et al. (2006), is to meet the unsolved need through creating new products or services. Thus, expected benefits from the innovation will increase the likelihood of users to innovate (von Hippel, 2005; Franke et al., 2006). Conclusively, high benefit expectation is a strong common characteristic of users that generate great innovations.

Research has found that some users adopt innovation faster than others. Von Hippel (1986, 1988, 2005) states that lead users are indeed unique since they experience a need that the average users will experience within months or even years later, as illustrated in figure 2. Research has shown that users who are ahead of trends often develop their own product or test new prototypes since they do not find any appropriate solution on the market to fulfill their need (von Hippel, 1986; Franke & Shah, 2003; Lüthje, 2004). When the market need

evolves, lead users are a very good indicator of what need the market will experience in the future. The lead users are therefore both ahead of the average users, in terms of understanding the trend and the developed need (von Hippel, 1986; Thomke & Sonnack, 1999). Their ideas are therefore often of commercial attractiveness (von Hippel, 2005; Franke et al., 2006).

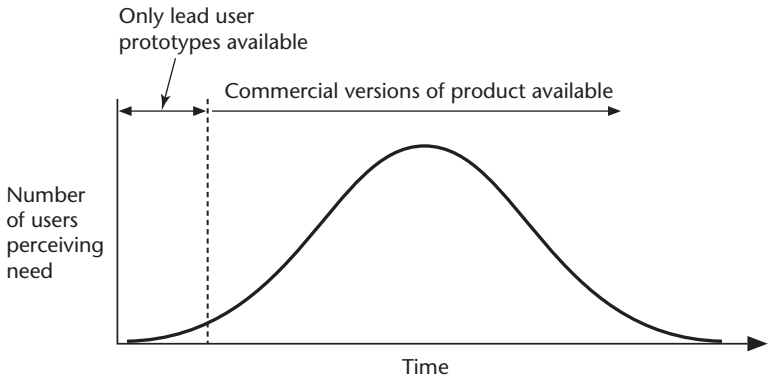


Figure 2: Ahead of trend illustration (p.134, von Hippel, 2005)

Empirical research also supports that users that are ahead of the market trend seem to generate more commercially attractive innovations. Franke et al. (2006) conclude that lead users, within kite surfing, have a strong and significant impact on users' ability to generate innovations that are commercially attractive. They conclude (p.312, 2006):

"The further ahead of a trend a user is, the lower the likelihood of an existing solution and so the greater the likelihood this supply-side motivator will contribute to inducing innovation."

Scholars conclude that both components of lead userness are necessary to generate great innovations (von Hippel, 2005; Lüthje et al., 2005; Franke et al., 2006). High benefit expectation explains why users engage and are willing to spend time and money in finding a solution and ahead of trend explains why the innovation is attractive (Franke et al., 2006).

Furthermore, scholars have investigated the antecedents of user innovation to explain some users' ability to position themselves as lead users. Scholars have found that experience and knowledge related to products, service or market space have an important role and are proven to be a contributing factor of who has a lead user persona (Schreier & Prügl, 2006). Research

has found that a user's ability to participate and to contribute with innovative ideas is to a large extent dependent on the user's prior experience. Schreier and Prügl (p. 336, 2006) state:

> *"As use experience gained in the underlying field increases over time, users will develop better usage skills and will be in a better position to perceive and analyze existing usage problems more systematically, to conceive solutions, and to test these solutions in practice."*

Similar to experience, research has found that product or service knowledge is important to explain a user's lead userness. Knowledge improves users' ability to understand the mechanism behind a product or service and can therefore identify what can be improved (Lüthje et al., 2005; Schreier & Prügl, 2006). Lettl et al. (2006) further report that users with high specialized knowledge better identify new technological opportunities and can therefore be ahead of the trend. Lettl et al. (2006) state that users that are professionals within the domain might be better at generating radical innovations since they have better knowledge and experience from the field.

Moreover, Schreier and Prügl (2006) proved that a user's personal creativity explains their lead users position. Users with higher personal creativity are more likely to be ahead of a trend since they better cope with new and uncertain situations, question existing solutions and see great opportunity for improvements (Schreier & Prügl, 2006). Thus, personality traits and cognitive behaviors in terms of innate consumer innovativeness will also have an impact on a user's probability to generate great innovations.

2.3.4 Effects of Involving Users in the Innovation Process

The effects of user involvement have often been illustrated with a few success stories such as Threadless, Lego and Dell. However, it is more important to understand the general performance effects for firms that integrate users into their innovation process. Scholars have investigated different aspects when involving users in the development of new products and services. Some effects are directly related to the quality or the success of a product or service that is later marketed and thus directly related to the user involvement. However, some scholars have also identified that user involvement can have an effect on how other users perceive firms that integrate users into their innovation process, which is an indirect effect of

user involvement. Moreover, scholars have also had a large focus on strategic perspective of user involvement and have asked what long-term consequences firms will face by letting users get a larger stake in the development of innovations. Some scholars argue that users facilitate innovation whereas others argue that they might be a source of strategic inertia.

Before presenting the empirical results from previous studies, it is important to highlight the dynamics of innovation activities. Firms pursuing open innovation have a great opportunity to receive many new ideas. However, the vast majority of ideas are not valuable to firms (Fleming, 2007). Fleming (2007) states, even though an open innovation activity will attract many creative people to contribute with their ideas, only a few are breakthroughs. Fleming (2007) further states that the ideas have a skewed distribution called 'Long-tail of innovation'. Fleming (2007) describes this phenomenon as receiving many ideas that have low quality, value or possible return on investment and only a few innovations can be considered breakthroughs. To thoroughly understand the consequences, this section first discusses some of the proven direct and indirect effects of user involvement and later on describes the paradox discussed in literature of integrating users into the innovation process.

2.3.4.1 Directly Related Performance Effects of Users' Involvement

Involving users into the innovation process makes theoretical sense because firms can ease the process of information transition of need and solution information (von Hippel, 2005; Pötz & Schreier, 2012). Even if research has stated that users can generate ideas that are commercially attractive and novel, practitioners and scholars have still questioned the usability compared with ideas from professionals. The question posed by critics is whether the users have the capability to produce innovation that outperforms the internal designers. In other words, can firms actually benefit from including users into the innovation process?

One stream of literature argues that users do not have the same level of expertise and design knowledge to compete with professional engineers or designers. By increasing the level of expertise and knowledge, employees of the firm can better understand the product components and avoid mistakes (Vincenti, 1990). Thus, professionals should have an advantage compared to users in creating successful innovations. The other stream of literature argues that users have capabilities that are equal or even better than professional designers

and engineers (von Hippel, 2005). As the literature regarding user involvement has evolved, scholars have proven that users often produce innovations that are of better quality (Pötz & Schreier, 2012) and with better financial performance (Ogawa & Pillar, 2006; Nishikawa et al., 2013) compared with professional engineers and designers. Moreover, by involving users into the innovation process, firms lower the risk of market failure when introducing new innovations (Ogawa & Pillar, 2006).

However, to succeed with new products and services, the quality of ideas must be ensured. Pötz and Schreier (2012) investigated the difference between users and professional designers by comparing their ability to generate high-quality ideas within the baby product market. Quality was measured as a result of the novelty, the feasibility and the customer benefit of the idea. Pötz and Schreier's (2012) findings reveal that users often provide ideas for new products with better quality compared to professionals. However, the ideas that users suggest were often less feasible compared to those of professionals. However, they outperformed professionals in terms of novelty and customer benefit.

Quality of ideas for new products and services is important but firms engage in innovation activities to ensure future rents (Laursen & Salter, 2006). So, are the product and services that stem from users' involvement more successful in terms of financial performance? Scholars argue that user involvement both can increase the financial success by generating more successful products and lowering the failure risk. Nishikawa et al. (2013) compared the financial performance of user and internally developed product from Muji, the Japanese manufacturer and retailer of consumer goods. They measured the performance by number of units sold, sales and gross profit margins after the first year after market introduction. Nishikawa et al. (2013) found that sales for user-generated products were three times higher and gross margin was four times greater compared with the internally developed products, and the trend increased over time. However, Nishikawa et al. (2013) argue that the result might not be generalizable for all types of products. In their study, Nishikawa et al. (2013) use the category with products related to living room. They argue that users have a competitive advantage over designers since they possess the need-based information to solve the problem. However, if the solution was more dependent on technical knowledge, the

designers might have a competitive advantage over users. Nevertheless, the study indicates that users have the capability to generate better products compared with professional designers and engineers.

Ogawa and Pillar (2006) take another aspect of the performance effects and argue that users' involvement can lower the risk of failing with new products and services. By involving users in the design or letting them take a stake in selecting the product, firms can secure that they do not introduce products without any market interest. (Ogawa & Pillar, 2006)

2.3.4.2 Indirectly Related Performance Effects of Users' Involvement

Research shows that user involvement can have a greater impact than just improving the success of new products and services. Fuchs and Schreier (2011) and Schreier, Fuchs and Dahl (2012) have performed empirical studies focusing on the users in the "periphery" i.e. the observing users that constitute the majority of the potential user group. Both the studies of Fuchs and Schreier (2011) and Schreier et al. (2012) found that users perceive user involvement activities as something positive. Fuchs and Schreier (2011) investigated how users perceive in idea generation contests where users both generate proposals and select the solution. Fuchs and Schreier (2011) conclude that users perceive firms with these activities as more customer-orientated, have more favorable corporate attitudes and positive behavioral intention. Schreier et al. (2012) extend Fuchs and Schreier's (2011) research by investigating how users perceive common design by users. Schreier et al. (2012) conclude that users perceive firms with common design by users as more innovative. This is important since it mediates a positive effect on consumers' purchase intention, willingness to pay and willingness to recommend the firm to other consumers, according to Schreier et al. (2012). Thus, both these studies confirm that user involvement does not just generate great innovations but also creates a better perception that reinforces a closer relationship between the firm and its users.

2.3.4.3 The Paradox of Involving Users – A Facilitator or Constrainer of Innovation?

Studies of user involvement have stressed the strong advantages of strong ties to users (Gruner & Homburg, 2000; Franke et al., 2012). The empirical support that users can

contribute in development of new products and services is profound (e.g. von Hippel, 2005; Pötz & Schreier, 2012; Nishikawa et al., 2013). Therefore, many scholars argue that users are facilitators of innovation, bringing both need and solution-based information into a firm's innovation process.

Other scholars have focused on the risk of creating too strong ties with users. The rationale behind this statement is that firms with stronger ties to their users will listen to and satisfy the user need that users express today. As a consequence, firms will develop competences, resources and cognitive frameworks to satisfy the users today but they might be difficult to change in the future (Christensen & Bower, 1996; Danneels 2003).

Scholars therefore argue that firms should keep a balanced relationship with their customers (Danneels, 2003). Burgelman (2002) argues in the same vein in his article with Intel as a case study. Burgelman (2002) states that firms can develop inertia from co-evolutionary lock-in, which is when the firm gets too dependent on its strategic context. In his case study of Intel he concludes that a close relationship with its customer hampered them from exploring other opportunities. Thus, firms building too strong ties to customers might not see new technology trajectories since they are too focused on the existing solutions.

2.4 Business Model Innovation

The concept of business model has become very popular and important in the emerging literature of strategy (e.g. Teece, 2007; Chesbrough, 2010; McGrath, 2010; Teece, 2010; Sosna et al., 2010; Hienerth et al., 2011). To provide a better understanding of our research gap, it is important to provide an overview of the theoretical development of the business model concept and what role users have possessed in business model innovation.

2.4.1 The Emergence of the Business Model Concept

The concept of business model has recently received much attention. However, a business model is not a new phenomenon (Casadesus-Masanell & Ricart, 2010; McGrath, 2010; Sosna et al., 2010; Sako, 2012). Business models have always existed (Sosna et al., 2010; Sako, 2012), but it was not until Peter Drucker's work in 1954 that it was highlighted. Drucker

stated in the book The Practice of Management that a good business model includes answers to who the targeted customer is; what the value for her is and what the economic logic is of the firm (Magretta, 2002). Nevertheless, the concept was not as commonly used as it has been during the last decade (Casadesus-Masanell & Ricart, 2010; Magretta, 2002). Magretta (2002) states that the increase in usage of the business model concept was a result of the fast growth of the dot-com industry in the beginning of the century. This has further led to a rapid increase of the usage of the business models concept by both practitioners and scholars (Magretta, 2002; McGrath, 2010; Zott et al., 2011). The rapid adoption of the concept led to a very diverse set of research answering what an actual business model is and how it should be used (e.g. Chesbrough, 2003; Casadesus-Masanell & Ricart, 2010; McGrath, 2010; Teece, 2010; Chesbrough, 2010 Zott et al., 2011).

As a result of the rapid development of the concept, no consensus of the definition has been achieved (Sosna et al., 2010; Zott et al., 2011). Many scholars have emphasized different aspects of a business model and it is therefore not an easy task to state which is the most theoretically sound definition (Hartmann, Oriani & Bateman, 2013). However, common themes have been found, such as *"business models emphasize a system-level, holistic approach to explaining how firms 'do business'"* and *"business models seek to explain how value is created, not just how it is captured"* (p. 1, Zott et al., 2011).

Casadesus-Masanell and Ricart (2010) distinguish two perspectives in understanding business models; aggregated and decomposed. From an aggregated perspective, the analyst understands a business model as a complex system that creates value for its stakeholders. This perspective focuses on a full context rather than understanding different specific components, choices or consequences. The perspective often refers to the 'McDonalds model' or 'Southwest airline model' to describe a large set of processes, choices and consequences that generate a behavior (Baden-Füller & Morgan, 2010; Casadesus-Masanell & Ricart, 2010). Hence, from an aggregated perspective it is difficult to point out what makes a business model unique, it is rather that the composite of many complex components makes a business model unique.

From the decomposed perspective, the analyst understands the business model as a system of a certain number of components that can be understood and analyzed in isolation from the others (Casadesus-Masanell & Ricart, 2010). As the theory of business model has evolved, scholars have proposed a variety of examples of business model ontologies (e.g. Johnson et al., 2008 Chesbrough, 2010; Osterwalder & Pigneur, 2010; Teece, 2010). Common components often mentioned in these definitions are revenue models (e.g. subscription models and freemium), value proposition and partnership. However, scholars state that different components of a business model are still interlinked and together they become an active system in creating and capturing value (Johnson et al., 2008; Zott & Amit, 2010). Many scholars argue that an advantage in understanding a business model from the decomposed perspective is that it provides a tool for entrepreneurs and managers to create and understand the meaningful design of the firm's business model (Johnson et al., 2008; Casadesus–Masanell & Ricart, 2010; McGrath, 2010; Osterwalder & Pigneur, 2010).

Both the aggregated and the decomposed perspective have common themes of describing how firms create, deliver and capture value but in different ways. Independently of perspective, scholars claim that the business model concept is here to stay, both from an academic and practitioners' point of view (Magretta, 2002; Chesbrough, 2003; Casadesus-Masanell & Ricart, 2010; Chesbrough, 2010; Sosna et al., 2010; Teece, 2010; Zott et al., 2011).

2.4.2 Business Model Design, Improvement and Innovation

Nowadays, firms have easier as well as cheaper access to both technology and information than ever before. This has opened up new opportunities for managers to elaborate on how to create, deliver and capture value from their business, which has resulted in more focus on business models (McGrath, 2010; Teece, 2010). According to Zott and Amit (2010), designing business models is one of the most difficult, but perhaps most important tasks entrepreneurs and managers have to deal with. Especially today when the conditions firms act within are rapidly changing, driven by customer preference, technology and competition (Chesbrough, 2010; Teece. 2010).

Studies have shown that business model design might have a more important role than previously thought (Zott & Amit, 2010; Chesbrough, 2010 Teece, 2010; Hartmann et al., 2013). According to Teece (2010), without well-designed business models firms will both fail to deliver and capture value efficiently. Chesbrough (2010) argues in the same manner and adds that managers have to expand their perspectives to understand that it is the business model that determines the value of a technology to both customers and the firm rather than the technology itself. Empirical research has also proven that firms that engage in business model design and refine or innovate their business model, also perform financially better than other firms (Hartmann et al., 2013).

To create, adjust, hone or replace a business model is often referred to as business model innovation (Teece, 2010). However, the degree of change has an important role in explaining different outcomes from the process. Mitchell and Coles (2003) and Hartmann et al. (2013) argue that minor changes in business model can enhance a firm's performance compared with competitors but is very easy for competitors to match, which results in status quo. More radical changes, i.e. changing several components of the business model, may have a more important role in describing business model as a source of competitive advantage (Mitchell & Coles, 2003; Zott et al., 2011; Teece, 2010; Sako, 2012; Hartmann et al., 2013). Novel forms of delivering and capturing value create competitive advantages that are more difficult to imitate (Teece, 2010; Sako, 2012) and important in generating supernormal profits (IBM Global Business Services, 2006; Sosna, Trevinyo-Rodríguez & Ramakrishna Velamuri, 2010; Teece, 2010; Chesbrough, 2010; Hartmann et al., 2013). For instance, Teece (2010) explain how Dell's radical change of business model gave them a unique position on the market and how many of their competitors have tried to imitate their way of doing business without success.

2.4.3 The Processes of Business Model Innovation

Even if managers and entrepreneurs have realized the importance of having a well-designed business model, many find the process of designing, evaluating and selecting business model very difficult, uncertain and risky (Linder & Cartrell, 2000; Teece, 2007; Chesbrough, 2010; McGrath, 2010; Sosna et al., 2010; Im & Cho, 2013). Firms cannot generally afford to make

mistakes in their business model innovation since it may have a strong negative impact on both financial performance and market share (Sosna et al., 2010). Therefore, scholars argue that firms need to develop new processes and capabilities to ease the process to pursue successful business model innovations (Chesbrough, 2010; McGrath, 2010; Sosna et al., 2010; Teece, 2010).

Amit and Zott (2001) and Chesbrough (2010) have investigated what barriers firms face that makes it troublesome to change business model. Amit and Zott (2001) describe that managers will face barriers to change business model since the new aspects of it will threaten the existing way of doing business and therefore the firm's ongoing value creation. The fear of failing results in resistance from middle management to conduct experiments with new aspects of business models even though they recognize a better fit between the firm's business model and environment. Amit and Zott's (2001) argumentation is very much in line with Clayton Christensen's reasoning about disruptive technology and why firms do not develop new technology before they are disrupted by a new technology (Chesbrough, 2010). In contrast to Amit and Zott, Chesbrough (2003, 2010) argues that managers are often constrained by their cognitive barriers. Chesbrough (2003, 2010) argues that firms' existing business model creates a filter of how managers access and interrupt information to make sense of all signals they receive from their environment. The filter is important for the manager to faster understand how to make decisions but can also be a source of dominant logic. Chesbrough (2003) argues that the filter also can filter out information that may lead to important opportunities or threats from the environment, which further could lead to a bias that creates a cognitive trap.

When pursuing business model innovation, scholars have discussed two different approaches; planning and experimentation perspective (Chesbrough, 2010; Sako, 2012). However, as Sako (2012) states, rather than choosing one it is more about finding the balance between these perspectives in order to be successful in changing a firm's business model. From the planning perspective, business model innovation is tasks of designing active systems by analyzing the environment, evaluating options and implementing (Sako, 2012). However, this perspective has been criticized as being too static (Chesbrough, 2010, McGrath, 2010; Sosna

et al., 2010). McGrath (2010) argues that since the planning perspective relies on assumption that often cannot be proved, firms need to have a more dynamic approach to business models innovation. Chesbrough (2010) contributes to the argumentation by describing that road maps and canvases might contribute by visualizing the business model but managers have to have a more exploratory approach to the business model innovation. Therefore, many scholars argue that firms need to learn to experiment with its business model (e.g. Teece, 2007; Chesbrough, 2010; McGrath, 2010, Sosna et al., 2010). Experimentation is about learning as much as possible at the lowest cost (Chesbrough, 2010; McGrath, 2010). In this way firms can test unknown assumptions and learn how customers and other stakeholders react to changes to the business model. Thus, developing capabilities to experiment with a firm's business model is important. McGrath (2010) even states that this may be a source of competitive advantage to have superior capabilities to experiment and consequently build better business models.

2.4.4 The Traditional Role of Users in Business Model Innovation

Users have traditionally not been an area of focus in the business model literature except that customer need is important in the design. However, as a result of the emergence of new technology and the success of users' involvement into the innovation process, they have become more virtual to the design. Still, they do not have a virtual part in the business model innovation process. First, the role of users in a business model will be discussed and later their role in business model design.

2.4.4.1 Users' Role in User Centric Business Models

The development of technology has enabled firms to create new opportunities to integrate users into its business (Wirtz et al., 2010; Hienerth et al., 2011). As a result, a new generation of user centric business model has appeared where the users have an important role in value creation, delivering and capturing. An often cited example is Threadless. Threadless is a firm that has a business model that is entirely based on the user. Threadless lets the users contribute T-shirt designs, which other users then can vote for. The design with the most votes is the actual T-shirt that is later produced. Users are in this example a very important role in Threadless' way of creating, delivering and capturing value – their business model.

As described in chapter 2.3, users have the capabilities to generate valuable contributions into the development of new service and product development. Some firms have realized that they can leverage their group of users in the design of new products and services. The users therefore become a virtual part in the firm's core business process in creating value (Hienerth et al., 2011). Furthermore, Hienerth et al. (2011) argue that there is a need of firms taking a more user-centric perspective on business models. The authors state that users can have a significant role in supporting the commercialization and diffusion of new products and services. Furthermore, Hienerth et al (2011) claim that it will not only have a positive effect on the value creation aspect of a firm, but will also result in positive synergies throughout a firm's business model. Users will therefore have a more virtual role in many firms' business models in the future (Wirtz et al., 2010; Hienerth et al., 2011).

2.4.4.2 Users' Role in Business Model Design

Users have a very important role in business model design (Chesbrough, 2007; Teece, 2007; Chesbrough, 2010; McGrath, 2010; Sosna et al. 2010; Teece, 2010; Zott & Amit, 2011; Im & Cho, 2013). Basically, since the essence of business model design is to figure out, as stated by Teece (p. 172, 2010);

"...what customers want, how they want it, and how the enterprise can organize to best meet those needs, get paid for doing so, and make a profit. "

Without truly understanding the users' need the firm will not be able to define the manner that entails them to actually pay for the firm's products and services. This is also the reason why many scholars state the importance of considering users' need in the design or change of business models (Chesbrough, 2007; Teece, 2007; Chesbrough, 2010; McGrath, 2010; Sosna et al. 2010; Teece, 2010; Zott & Amit, 2011; Im & Cho, 2013). However, in the emerging literature of business model innovation, users still have a very passive role in the design of new business models similar to their role in traditional new product development. According to several scholars, it is the manager's role to hypothesize what the users want and how they want their value delivered (Sosna et al., 2010; Teece, 2010).

However, understanding what users want and designing a business model accordantly is a difficult task. Several scholars have recognized how difficult it is to truly understand users' need since the information is highly tacit (Teece, 2007; Chesbrough, 2010; Teece, 2010). Teece (2007, 2010) states that managers need to spend both time and money to acquire the knowledge about users' need and find evidence to validate their choice of design. The problem raised by scholars is that traditional market research is not enough to gather this information that is so crucial and should fuel the design of a business model (Teece, 2007; Teece, 2010).

2.5 Research Gap

The traditional view of how firms create and deliver value does not reflect today's business environment (Hienerth et al., 2011). In times of rapid changes of users' need, shorter product life cycles and rising competition, firms need to continuously develop themselves to adapt to these changes. To stay flexible and open is therefore essential to ensure continuous fulfillment of users' need, regardless of whether it concerns developing new services, products or business models (Chesbrough, 2003; von Hippel, 2005; Chesbrough, 2010; Hienerth et al., 2011).

Research has revealed astonishing results regarding how useful users can be in the innovation process to develop new product and services. Scholars have shown that user involvement in new product and service development results in innovation that is are more novel (Lilien et al., 2002), of better quality (Pötz & Schreier, 2012), with lower failure rate (Ogawa & Pillar, 2006) and that can perform better financially than professionally designed products (Nishakawa et al., 2013). According to von Hippel (1998) and Ogawa (1998), the great results are a consequence of users' possession of both need- and solution-based information. Users with certain characteristics of lead userness have the capacity of generating great solutions and can understand what causes dissatisfaction with current products. With these two sources of information, they can create new products and services of high quality that fulfill their need (Lüthje, 2004; Lüthje et al., 2005; Franke et al., 2006) and sometimes even better than professionals (Pötz & Schreier, 2012; Nishikawa et al, 2013). This has further

resulted in a new generation of user-centric business models, such as crowdsourcing and open collaboration (e.g. Pisano & Verganti, 2008; Wirtz et al., 2010; Hienerth et al., 2011).

Scholars and practitioners have illuminated user engagement success in new product development (e.g. Prahalad & Ramaswamy, 2004; von Hippel, 2005) as well as the importance of understanding customers' need in business model innovation (Teece, 2007; Chesbrough, 2010; McGrath, 2010; Teece, 2010; Sosna et al., 2010; Im & Cho, 2013). Oddly, little attention has been dedicated to analyzing how user engagement could be leveraged in the business model innovation process. The user's role in the business model innovation process is today rather passive. Primarily, as argued by scholars, because it is mainly the manager's role to hypothesize, design and implement new ways of deliver value (Teece, 2007; McGrath, 2010; Chesbrough, 2010; Teece, 2010). Further, this is very similar to the traditional point of view of new product and service development (Pillar & Walcher, 2006). However, scholars have recognized the importance of the information deriving from users (Teece, 2007; Chesbrough, 2010; Sosna et al., 2010; Teece, 2010). Users could therefore have an important role if they have the same qualities contributing to business model innovation as in new product and service development (Teece, 2007; Teece, 2010). Thus, potentially grasping need-based information that traditional marketing research cannot.

On the same premises as users are activated as value creators in new service and product development, it is interesting to investigate whether users could have a similar role in business model innovation and provide valuable contributions to how firms can develop their business model to better fulfill their need. To the authors' knowledge, no previous research has investigated whether users could make valuable contributions when involved in the process of business model innovation. The intention of this study is therefore to explore the consequences of involving users into the business model innovation process. More precisely, the research question of this thesis is:

What are the effects of user involvement in the business model innovation process?

3 Method

To investigate the consequences of involving users into business model innovation, this study used an explorative approach. Data was collected from an idea generation contest, similar to other studies (e.g. Pillar & Walcher, 2006; Pötz & Schreier, 2012). From the idea generation contest, qualitative ideas, user characteristics and judgment of ideas were collected. The following sections will present and discuss how this study was conducted and the rationale of the chosen research design.

3.1 Context of Empirical Research

In order to address the research gap outlined above, the selected research field had to meet certain criteria from both the firm as well as users' perspective. From a user perspective, the first criteria that needed to be fulfilled in order to ensure ideas of great quality, users had to have a strong commitment to share their ideas to create input that was valuable both for the users and the firm. Secondly, the users needed to have some sort of understanding of the current business model in order to be able contribute with ideas. Nishikawa et al. (2013) state that if a business technology is too complex to understand for the user, they will be constrained in their ability to propose ideas. From a firm perspective, the criteria that had to be fulfilled were firstly that there is a need, wish and intention to change business model according to user business model innovation suggestion. Secondly, The firm was willing to launch an idea generation contest and thirdly that they had a large target group and user community to ensure a larger sample size.

To fulfill these criteria, the research was conducted in cooperation with Sweden's most listened to podcast - Filip & Fredrik's podcast. The Swedish podcast industry has recently experienced a rapid growth, both in terms of listeners and podcasts (Svenska Dagbladet, 2012). Since it is a new phenomenon, podcast producers have been creative trying out new formats of how to create, deliver and capture value. A podcast is according to Oxford Dictionaries (2004):

"A digital audio file of speech, music, broadcast material, etc., made available on the Internet for downloading to a computer or portable media player; a series of such files, new installments of which can be received by subscribers automatically."

Both hosts, Filip Hammar and Fredrik Wikingsson, have backgrounds as journalists. They started to work as TV-hosts in the beginning of 2000 and are today one of Sweden's most famous TV-hosts. In addition to TV-programs, Hammar and Wikingsson have written books, done live shows and in 2010, Hammar and Wikingsson started their podcast. Since 2010, the podcast has been produced in more than 150 episodes and has today more than 250,000 listeners, making it one of Sweden's most popular podcasts (Wikingsson, personal interview, 2013).

Filip and Fredrik's podcast fulfilled all the criteria from the user perspective. Firstly, the podcast's listeners are highly active and engaged in the podcast. Throughout the development of Filip and Fredrik's podcast the listeners have contributed with innovative material by, for example, producing their own jingles and posters as well as starting a discussion forum and fan-pages with more than 94,000 followers on Facebook (As of 2013, August 10). Secondly, users are familiar with the structure of Filip and Fredrik's podcast. The business model does not build on technical components and Filip and Fredrik's podcast had at the time of this study a business model similar to other radio or media products that users are familiar with. Hence, the 'average' user had the opportunity to participate in the competition and was not constrained by a requirement of technical knowledge, an important criterion, according to Nishakawa et al. (2012).

Filip and Fredrik's podcast also meets the criteria from a firm perspective. Firstly, Hammar and Wikingsson have numerous times stated both in the podcast as well as in an interview (Wikingsson, personal interview, 2013) that they have and are trying to update and develop the podcast in some way but are not sure in what way. Wikingsson and Hammar highlight the obvious risk of loosing listeners by changing their business model and are therefore eager to better understand users' view on business model changes. The podcast has during the three years had the same business model and Hammar and Wikingsson believe that they could do more to increase the value both to the listeners but also to themselves. In addition, they felt

that since the podcast has reached such a large coverage with 250,000 listeners where they have their attention for 60 minutes, they felt that they did not capture its potential value and that they had the opportunity to generate more rents from the podcast but feared the listeners' reaction (Wikingsson, personal interview, 2013). Secondly, as a result of this ambition, Hammar and Wikingsson were very willing to launch this idea generation competition to generate ideas from their large group of users, thus fulfilling the last criteria of a large target group. Filip & Fredrik's podcast does therefore fulfills the conditions for the context to be plausible for this research study.

3.2 Data Collection Method – Idea Generation Contest

Data was collected through an idea generation contest. Pillar and Walcher (p. 310, 2006) state that an idea contest means;

"... to ask a group of (competing) users to submit solutions to a given task within a given timeframe. The nature of a competition should encourage more or better users to participate, should inspire their creativity and increase the quality of the submissions"

An idea generation contest was chosen as data collection method for four reasons. Firstly, it is recognized as a great method that often attracts many participants with high quality ideas (Pillar & Walcher, 2006; Pötz & Schreier, 2012). Like other forms of crowdsourcing, an idea generation contest relies on a self-selection process, which means that users that are motivated and have the knowledge will participate. This will increase the quality of the ideas generated (Pillar & Walcher, 2006; Pötz & Schreier, 2012). Secondly, the nature of competing with other users should encourage more users with more creativity to participate and thus increase the quality of the proposals (Toubia, 2005). Thirdly, the scope of an idea generation contest is very flexible in how much a user can elaborate with the solution (Pillar & Walcher, 2006). Since generating ideas on business models calls for rather open tasks, the flexibility generates value in the design of data collection. Fourthly, compared with many other data collection methods, an idea generation contest was cheap in relation to its output and easy to distribute (Pillar & Walcher, 2006). This resulted in the possibility to distribute the questionnaire to as many of Filip and Fredrik's podcast listeners as possible.

The data in the contest was collected in two waves. The first wave of data collection was through the idea generation, where users had the opportunity to propose their idea of how the business model of Filip and Fredrik's podcast could be constructed. The second wave of data collection was done through the evaluation of the received ideas. The design of the idea generation contest was pre-tested with a group of students and employees with both business as well as non-business backgrounds to ensure that users really understood the survey questions and that we received the right type of data (See appendix 1 for more information on the pre-test sample). In addition, after the pre-test, the idea generation contest was adjusted according to the sample group's feedback before launching the contest.

3.2.1 Idea Generation

In the first wave of data collection, this study encouraged users to propose ideas of how the business model of Filip and Fredrik's podcast should be constructed. To receive valuable data, it was important to ensure that users firstly understood what a business model is, and secondly how they, as users, could contribute. This was ensured in two ways. Firstly by developing two different ways to operationalize the value creation, delivering and capturing in a business model. These two were tested in the pre-test and after evaluating both, the one with the best result was chosen and adjusted after the feedback. The chosen structure was based on Osterwalder and Pigneur's (2010) building blocks of a business model. Osterwalder and Pigneur's concept of a business model has been tested around the world with firms such as Ericsson, IBM, Deloitte and the public sector. It is recognized to be useful in mapping business models and to communicate how a business model is and can be changed (Chesbrough, 2010). Osterwalder and Pigneur's concept of business model consists of 9 building blocks; value proposition, key activity, key resource, partnership, cost structure, revenue model, customer segment, customer relationship and distribution channels (illustrated in figure 3).

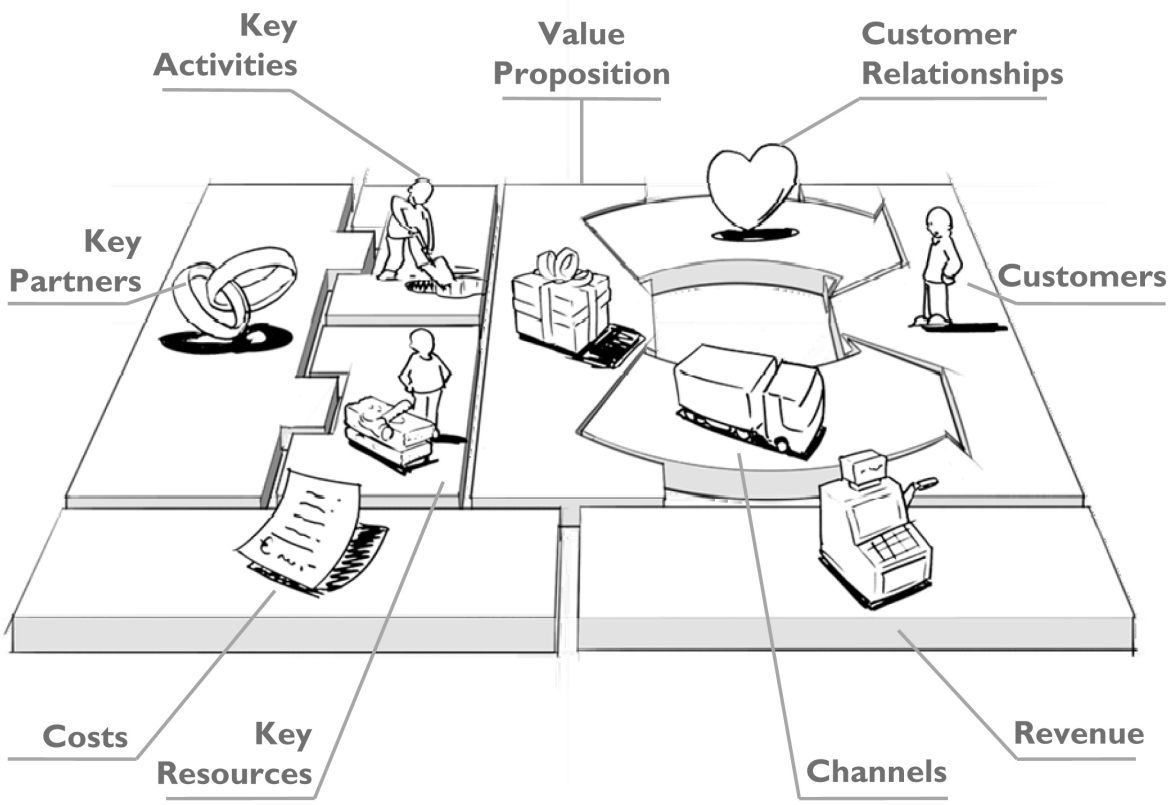


Figure 3: Osterwalder and Pigneur's business model canvas (p. 18-19, Osterwalder & Pigneur, 2010)

In the contest, users had the opportunity to contribute with an idea of how Filip and Fredrik could change every building block of the business model around the podcast. Secondly, to further ease the users' process of participating the users were provided with a description and overview of Filip and Fredrik's current business model to better grasp the concept of business model. See appendix 2 for an overview of the operationalizing of the business model.

The idea generation contest was introduced in episode 146 of Filip and Fredrik's podcast. Hammar and Wikingsson briefly described the purpose of the contest and provided the website where users could locate it. The link to the online form was also posted on the podcast's website (www.filipochfredrik.com), in social media and at the fan-pages of Filip and Fredrik's podcast. The website the users visit to participate contained an introduction text explaining the contest and the underlying problem and a form where participants had three

different choices regarding the business models' building blocks. The participant could either decide to (1) keep the existing structure since they were satisfied with it, (2) leave their own proposal or (3) state that they are not satisfied but do not have any idea of how to improve. The benefit of this structure gave this study the possibility to isolate the reason why users decided to contribute or not. Later in this process, users answered a questionnaire in order to provide insights into the sample characteristics. To incentivize participation, a prize was given to the user with the best idea. The winner was given the possibility to meet Wikingsson and Hammar during the production of an episode of Filip and Fredrik's podcast. Overall, 422 users participated by generating an idea and completing the questionnaire.

3.2.2 Idea Evaluation

In the second wave of data collection, users who participated in the idea generation assessed proposals from the other users. Scholars have investigated the effects of letting experts versus users be a part of the evaluation in idea generation contests. The traditional approach, also used in a few previous studies (e.g. Magnusson et al, 2003; Pillar & Walcher, 2006; Pötz & Schreier, 2012), is to use a panel of experts evaluating ideas (Toubia & Flores, 2007). However, all these studies have fairly small sample sizes, which make it possible to use a panel of experts. According to Toubia and Flores (2007), using expert panels when firms receive hundreds of ideas is not feasible. Toubia and Flores (2007) propose that letting users evaluate ideas is a faster, cheaper and better way to evaluate ideas since an expert's judgment does not always reflect users' need and preferences. From their field study, Toubia and Flores (2007) conclude that experts are more responsive to solution-based information whereas users are more responsive to need-based information. Consequently, ideas screened by experts are more likely to be more sophisticated but may not address the users' need better than user screened ideas (Pillar & Ihl, 2009). Since this study received more than 400 ideas, this study chose to let the users evaluate the ideas.

Out of all the ideas collected through the first wave of data collection, 35 % proposed to keep the existing structure of all building blocks. Thus, these users did not suggest any improvements or changes toward the business model around Filip and Fredrik's podcast. Consequently, these ideas were not selected for evaluating since they did not contribute with

new ideas that could be rated. The remaining ideas were sent out to all users that had completed the contest regardless of whether they proposed any changes or not (n=274). Toubia and Flores (2007) emphasize that it is unreasonable to ask each user to evaluate more than a few ideas. In this study, users rate three ideas each to ensure that each idea would be rated by at least five users. The three ideas to each rater were randomly selected and validated so that they neither voted for their own proposal nor rated the same proposal several times. The three ideas were sent out to all that had participated in the contest (n=422) by email. The email contained an introductory text, three proposals and a link to the online form for the evaluation. Each user was provided with a unique identification number to identify which user voted on what proposal. Thereby we can ensure that each evaluator has rated the correct idea.

Overall, 192 respondents participated in the evaluation process. To minimize biases, only ideas with two or more votes were included in the data set, which resulted in 133 ideas. The distribution between two or more evaluations is found in table 1.

Distribution of evaluations						
	One rating per proposal	Two rating per proposal	Three ratings per proposal	Four ratings per proposal	Five ratings per proposal	Total
Number of ratings	79	81	40	9	3	133

Table 1: Distribution of evaluations

To ensure the reliability of the data from the evaluation process, an inter-rater reliability test was used to measure the degree of agreement among raters. Krippendorff alpha is a conservative index measuring the agreement among raters and is considered to be a highly rigorous measure to capture inter-rater reliability. However, very complex rating tasks, like rating quality of ideas, are usually not expected to receive high inter-rater reliability. Hayes and Krippendorff (2007), who constructed the Krippendorff Alpha, propose that the original procedure of rating exercises shall include the possibility for raters to ask questions, interact with each other and change their initial rating if they have misinterpreted something in the

rating. Furthermore, raters often need training and clear definitions before the rating exercise, according to Hayes and Krippendorff (2007). However, since there was no possibility of educating users, neither let them interact with each other during the process nor change their rating, a lower Krippendorff Alpha was expected. The alpha ranged from 0.48 to 0.50 and the Krippendorff Alpha for each dependent variable is found in table 2.

Krippendorff Alpha	
Rating variable	Krippendorff Alpha
Future listening probability	0,48
Novelty	0,48
Overall value	0,48
Feasibility	0,5

Table 2: Krippendorff Alpha

To ensure an unbiased rating and ensure the usability of the idea, the evaluator was asked two control questions. *(1) To which extent does this proposal describe a business proposal idea (0= this is not a business model idea, 10= this definitely is a business model idea)*. The purpose was to measure whether the proposal was an idea and not just an opinion about how Hammar and Wikingsson would act. *(2) How well was the idea described in terms of enabling you to fully understand it? (1= very poorly, 7 = very well)*. The purpose was to measure how understandable the idea was to ensure that the rater based their rating on the quality of the idea and not the description of it. Other questions asked in the idea evaluation are described under operationalization of dependent variables.

3.3 Characteristics of the Sample

As outlined above, the total sample from the first wave of data collection consists of 422 users. Consistent with the target group of Filip and Fredrik's podcast, the characteristics of the sample were predominantly males (83%) and the mean age was 26.18 years (SD = 6.91),

ranging from 16 to 68. The majority of the sample was either employed (55%) or students (33 %). In regard to the level of education, 62% had an academic degree and most of the participants had a degree within another subject than business (74%).

A very strong characteristic of the sample was that the majority, 94%, of the sample group listens to Filip and Fredrik's podcast every week whereas 65% (scored four or five out of five) state that they have followed the podcast since the beginning. This makes them well aware of the podcast format and the value of Filip and Fredrik's podcast. Another strong characteristic of the sample was the strong commitment from the listeners to Filip and Fredrik and the podcast. For instance, 64% of the sample fully agrees that they see themselves as fans of Filip and Fredrik (rated from one to five) and 38 % state that they have been following Filip and Fredrik since the beginning of their career. Thus, in line with the findings of Franke et al. (2012) and Gruner and Homburg (2000), the closeness between the users and the firm seems to have a strong impact on their likelihood to participate in user innovation activities.

It is interesting to understand how much experience the participants have from business decisions and from business model innovation. Out of the 422 participants, 26% state that they are working in a role where they have to take business decisions. Thus, the majority of the participants do not have experience of taking business decisions and considering the consequences of them. 18% of the sample has experience from starting their own firm. Regarding experience from business model innovation, 22% of the participants have experience from business model innovation but most of them just a few times (mean = 2.20, SD = 9.10). However, when users have conducted the business model innovation previously, they state that the new business model that they have participated in changing differs a lot compared with the previous (mean = 3.32, SD = 1,59, 5= differs a lot and 1= do not differ at all).

Finally, it is interesting to understand how the participants in the idea generation contest regard themselves as creative or as lead users (items capturing these characteristics are discussed below). The users who participate in the idea generation contest tend to rate themselves as very creative since the mean was 4.16 out of five (SD = 0,74). Regarding lead userness, the mean was 2.86 (SD = 0,75).

Characteristics of sample		
	Respondents	Percentage
Gender		
Male	349	82.7%
Female	73	17.3%
Occupation		
Student	137	32.5%
Employed	21	5.0%
Unemployed	231	54.7%
Entrepreneur	18	4.3%
Retired	1	0.2%
Other	14	3.3%
Frequency of listening to the podcast		
Every week	394	93.4%
2-3 times/month	18	4.3%
1/ month	9	2.1%
Less frequently	1	0.2%
Experience from business decisions		
Yes	110	26.1%
No	312	73.9%
Experience from starting own firm		
Yes	76	18.0%
No	346	82.0%

Table 3: Distribution of sample characteristics – (n=422)

Characteristics of sample (n=422)		
	Mean	SD
Age	26.18	6.91
Experience from radical changes of business model	3.32	1.59
Lead userness	2.86	0.75
Personal creativity	4.1	0.74

Table 4: Mean and standard deviation of sample characteristics

3.4 Operationalization of Independent Variables

In general, all measurement items of independent variables were generated from existing literature. Areas concerning users characteristics explain users' ability to generate high quality ideas for business model innovation. A rich body of literature has investigated characteristics for users in new product and service development mainly focusing on lead userness, user expertise and personal creativity. To a large extent, measurement items from these studies were adapted to the fit the aim of this study. An overview of items adapted, Cronbach Alfa and corrected item – total correlation is found in appendix three to five.

3.4.1 Lead Userness

From previous studies, several scholars have found that many user innovations are concentrated among users that have lead user characteristics. The users' 'lead userness' has been tested in many different contexts such as sports equipment (e.g. Lüthje, 2004; Lüthje et al., 2005; Franke et al., 2006), medical equipment (e.g. Lüthje, 2003; Lettl, Herstatt & Gemuenden, 2006), industrial products (e.g. Urban & von Hippel, 1988), software products (Franke & von Hippel, 2003) and librarian systems (Morrison, Roberts, and Midgely, 2004). As outlined above, lead users are defined as a user population who (1) anticipate obtaining relatively high benefits from the solution and (2) are ahead of important trends in the marketplace.

To measure these two variables, measurement items were adapted from Franke et al. (2006) to measure expected benefits and items from Franke and Shah (2003) to measure head of

trend. Both sets of items have been used and validated by other studies such as Schreier and Prügl (2006). The point rating scales were also adapted from these articles with a five-point rating scale. The items regarding lead userness were later indexed with an acceptable Cronbach alpha of 0,748.

3.4.2 User Expertise

From existing literature, scholars have found that users' expertise has a significant impact on their ability to generate innovations (Lüthje, 2004; Lüthje et al., 2005; von Hippel, 2005; Hienerth, Pötz & von Hippel, 2007; Schreier & Prügl, 2006). Users need to understand and gain experience to be able to provide both need- and solution-based information (Lüthje, 2004). Lüthje (2004) divides a user's expertise into user knowledge and use experience.

Traditional studies within user involvement in product or service development are interested in the users' knowledge and experience regarding the product or service. However, since this study explores business model innovation, it is important to also take the users' knowledge and experience regarding business model innovation into account. To measure the users' knowledge and experience from podcasting as well as Filip and Fredrik's podcast, measurement items from Lüthje (2004) and Lüthje et al. (2005) were adapted. Regarding the users' knowledge and experience from designing a business model, this study developed self-constructed items. The measurement captured type of education the user had received, business experience the user had acquired and level of business model design experience.

3.4.2.1 Personal Creativity

In contrast to experience and knowledge, which users can absorb, studies reveal that some users have personality traits that make them more likely to innovate and to be creative (Kirton, 1976; Im et al., 2003). This study measured the personal creativity using the Buffalo Creativity Process Inventory (Puccio, 1999), also adapted by Franke, Pötz & Schreier (2013). In the study of Franke et al. (2013), they reduced the nine-item scale to four items but still maintained a reliable scale for measuring personal creativity. Thus, we adapted the same four items (see appendix 5). The same rating (1 to 5) was used to measure personal creativity. The four items were later indexed with an acceptable level of Cronbach Alpha of 0,799.

3.4.2.2 Perceived Fairness

As outlined above, Franke et al. (2012) found in their study that perceived fairness has an important role in increasing the willingness to contribute. Since ideas for new business models can generate much value both for the firm and users, it was interesting as well as important to understand whether users perceive the contest as fair. To do so, measurement items were adapted from Franke et al's (2012) study focusing on distributed value, transparency and self-interest. In addition to the perceived fairness towards the idea generation contest, perceived fairness towards the proposal they submit was also measured. This item was self-constructed and found in appendix 4 together with the other perceived fairness measurement items. Finally, these items were indexed with a Cronbach Alpha of 0.766.

3.5 Operationalization of Dependent Variables

This study used three different types of dependent variables to investigate the effect of user involvement in business model innovation; degree of change in business model design, outcome variables and quality of idea.

3.5.1 Degree of Change of Business Model Design

Following previous literature within business model innovation literature, the degree of change can be measured by how many building blocks are changed (Mitchell & Coles, 2003; Hartmann et al., 2013). Since this study adapted Osterwalder and Pigneur's (2010) concept of business model and gave the participants the opportunity to keep the existing structure if they were satisfied, keep the existing structure if they did not have any idea or leave their proposals, this study could measure the degree of change in their business model innovation.

Mitchell and Coles (2003) discuss the different degrees of change in business model innovation. They state that if less than four components are changed, the change should be viewed as a business model improvement rather than innovation. Based on the definition of Mitchell and Coles (2003), this study has divided the respondents' proposals into three groups; status quo proposals, improvement proposals and innovation proposals. The first group of *status quo proposals* consists of the group of users that was satisfied with all aspects

of the current business model or did not have any ideas of how to change them. Hence, this group was equal to zero changes. The second group, *improvement proposals,* consisted of users proposing one to three changes in the business model and the third group, *innovation proposals,* consisted of users proposing four or more changes to the business model of Filip and Fredrik's podcast.

3.5.2 Outcome Variable

To understand the commercial potential of the proposed ideas, this study wanted to measure the potential outcome of the proposed business model by measuring the perceived value and the purchase intention. Firstly, the purchase intention variable was measured by an item borrowed from Schreier et al. (2012); *what would be your future listening probability of the podcast when this business model idea would be implemented (0= No chance, would never listen 10= Certain, would definitely listen).* Secondly, this study wanted to measure whether the user perceived the proposal as better, as good or worse than the current business model. To measure this aspect, a self-constructed item was used.

3.5.3 Quality of Idea

Following previous research (e.g. Magnusson et al., 2003; Kristensson et al., 2004; Franke et al., 2006; Pötz & Schreier, 2012; Franke et al., 2013), the quality of the users' ideas were measured by using three variables; novelty and originality, stakeholder benefit and feasibility. The first variable, *novelty* of an idea was compared with the current business model. Two items were used to capture novelty. The first item focused on how much the new business model differs from the current one. The second item focused on whether the idea truly reflects creative and unique thoughts. Other studies (e.g. Franke et al., 2013) have taken the same approach to capture novelty. The two items were later indexed with a Cronbach Alpha of 0,89. The *feasibility* of an idea reflects how easily the business model could be turned into practice. Previous studies (e.g. Magnusson et al., 2003; Kristensson et al., 2004; Franke et al., 2006; Pötz & Schreier, 2012; Franke et al., 2013) have investigated user involvement in new product development and are therefore focused on the customer benefit. However, since a business model generates value to a set of stakeholders, this study has focused on *stakeholder*

value. This study expands the variable to measure the value to (1) the user, (2) Filip and Fredrik and (3) other stakeholder groups mentioned in the proposal. This will better capture the underlying problem in solving a business model innovation problem. However, these were also indexed with a Cronbach Alpha of 0,77. All three variables were measured using a seven-point rating scale. One was equal to low novelty/value/feasibility and seven was equal to high novelty/value/feasibility.

In addition to these items, a three-way interaction item was created to measure the overall quality of ideas. This method was also used in Pötz and Schreier (2012) to measure the overall quality of new product development ideas from professionals and users. The overall quality measurement is constructed by Novelty (indexed) * Overall Value (indexed) * Feasibility.

4 Findings

This chapter is divided into two parts to fully explore the research gap and research question of *what the effects are of involving users in the business model innovation process*. The subsequent section provides a descriptive overview of the effects found when users propose business model changes. The second section of this chapter presents the explorative findings describing the antecedence explaining the differences of outcome, both in terms of quality and degree of change.

4.1 Effects of User Involvement in Business Model Innovation

Descriptive results from the idea generation contest provide some interesting insights into what the consequences are when letting users propose ideas for business model changes. The consequences reveal if, and to what degree, users have capabilities to contribute in business model innovation. To explore the effects of users' participation in business model innovation, this section will first discuss and reveal the result regarding how users proposed ideas and to what part of the business model. Secondly, this section investigates what degree of change and what degree of quality the proposal suggested by users possessed. Lastly, this section discusses the relationship between degree of change and quality.

4.1.1 Users Ability to Propose Business Model Innovation Ideas

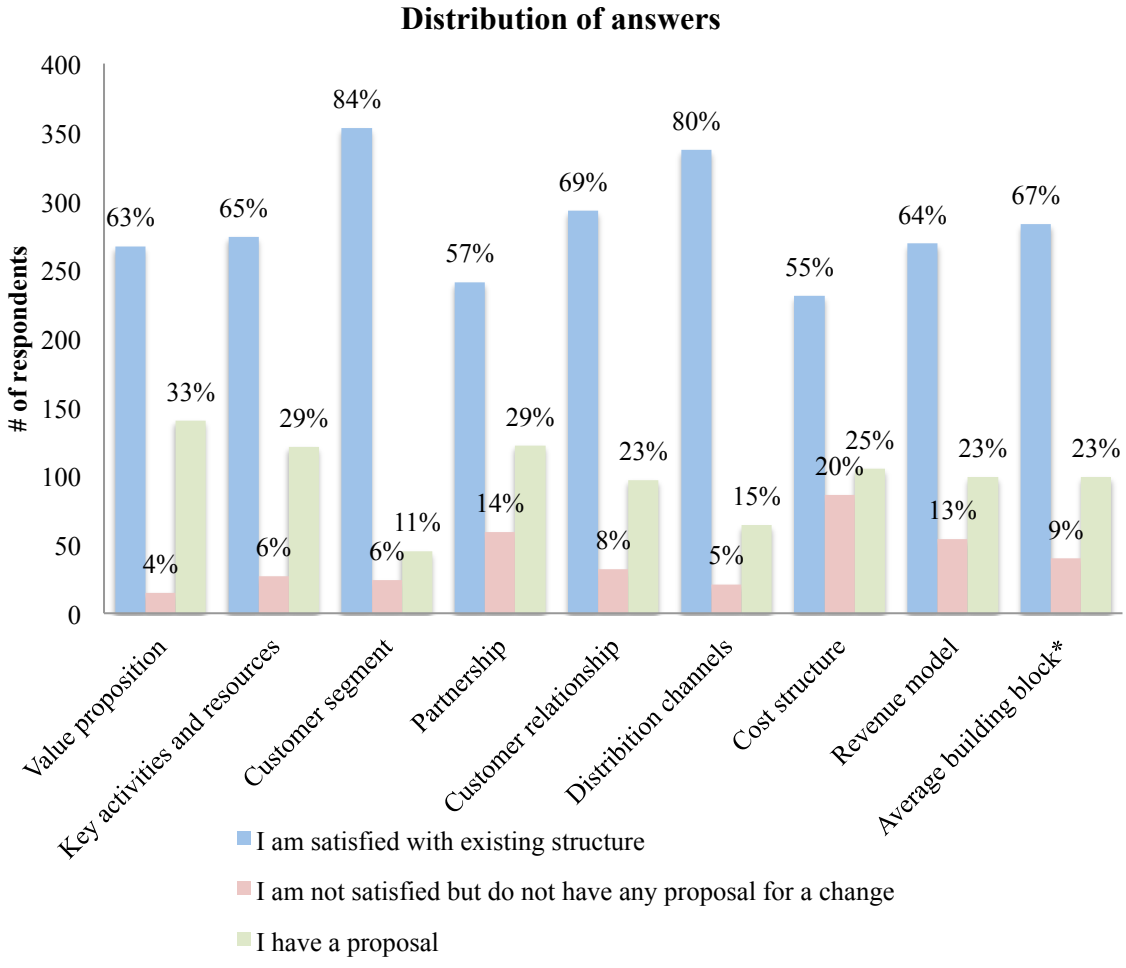
As a first step of understanding the effects of users' participation in the business model innovation process, it is important to investigate whether and how users chose to participate in the idea generation contest. This indicates whether users have the ability to activate the problem and solution-based information to generate ideas that might solve the experienced problem. To get an overview of how the users chose to participate in the idea generation contest, it is interesting to understand the distribution of users stating that they are (1) satisfied, (2) not satisfied but do not have any proposal for a change or (3) not satisfied and do have an idea how to improve the business model. The distribution provides an overview to what degree users have any ideas on how to improve the business model or if they are just satisfied with the existing business model.

Figure 1 illustrates how users perceived the business model's different building blocks in terms of satisfaction or whether they had any suggestion for changes. Generally, as shown in figure 1, 67 % of the users state that they are satisfied with the overall structure, 23 % have an idea how to improve the business model and 9 % state that they are not satisfied but do not have a proposal for a change. Thus, the data reveal that there are more than a fifth of the users that actually have an idea of how to improve the business model around Filip and Fredrik's podcast. Furthermore, the group of users with a proposal is more than twice as large compared with those who are not satisfied but without proposals. The data indicate that there is a group of users that have the ability to identify a problem and suggestion. Assuming that those proposing an improvement are somehow dissatisfied or see an opportunity for improvement, the results indicate that users have the ability to identify a problem and propose a solution.

Furthermore, as seen in figure 1, building blocks that receive the lowest satisfaction of existing structure (*value proposition = 63 %, partnership =57 %, key activities =65 % and resources* and *cost structure = 55 %*) are also the building blocks that users have most proposals of how to improve (*value proposition = 33 %, partnership =29 %, key activities and resources = 29 %* and *cost structure = 25 %*). The result indicates that users do not just have the ability to state that they are dissatisfied with a certain building block of the existing

business model, but can also use that information to propose improvements to solve their problem with their current experience of the podcast. Lastly, figure 1 also reflects that users seem to have more difficulty in proposing improvements for certain building blocks compared with others. For instance, 20 % of the users stated that they are not satisfied with the existing *cost structure,* but do not have any proposal how to improve it.

Overall, the data reveal that users suggested ideas toward many different parts of the business model. The results from figure 1 show that users can identify what part of the business model they are less satisfied with, and thus propose how the firm should improve it. This is a first crucial step in seeking the effects and the opportunities to involve users into business model innovation.



**Average building block is constructed by summarizing response by all building blocks and divided by eight*

Figure 4: Distribution of answers by business model building block (n= 422)

To better understand the effects of involving users into the business model innovation process, it is important to explore how the ideas users suggested were distributed among the business model building blocks. The distribution indicates whether the users have any preference or capability to change any particular business model building block. In total, 793 ideas were generated from the idea generation contest towards different business models. As seen in figure 2, these ideas were fairly evenly distributed among the eight different building blocks of a business model. Two building blocks that distinguished themselves from the rest are *customer segment* and *value proposition*. C*ustomer segment* had the lowest number of idea suggestion (6 %) and, in contrast, *value proposition* had the most (18 %). Users' knowledge and experience of different building blocks might also affect the distribution of ideas and proposals for change. For instance, users have experienced the value proposition and can therefore identify what and how this should be improved. However, users have less to relate to Filip and Fredrik's cost structure, making it more difficult to propose improvements.

Nevertheless, the distribution in figure 2 indicates that users possess ability to generate new ideas toward many different building blocks and not just the one that users might relate to, such as value proposition. Thus, the results indicate that users can take a holistic view of a business model and propose ideas of how to improve the process of creating, delivering and capturing value.

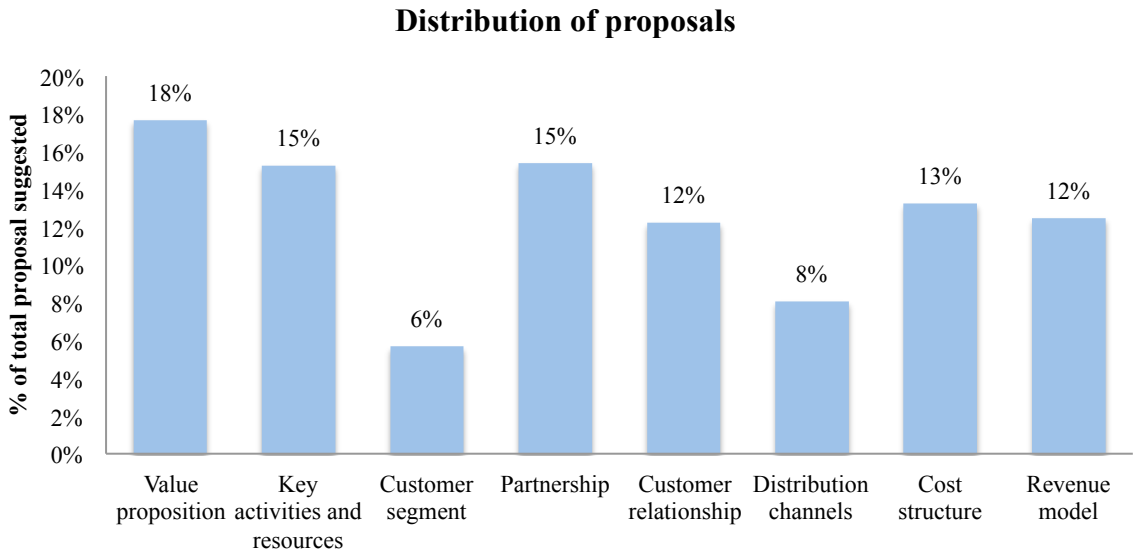


Figure 5: Distribution of proposals among business model building blocks (n= 793)

To provide an idea of what the proposals might look like, this study has provided a couple of examples to illustrate the nature of the ideas suggested during the idea generation contest. In the text box below, there is one example toward each building block of the business model except cost structure. Cost structure is excluded since it is more as a consequence of the business model design (Osterwalder & Pigneur, 2010). The examples illustrate how users are using both need- and solution-based information to solve either their problem as listeners and indirectly Filip and Fredrik podcast's problem as a firm.

Example of ideas proposed

Example – Revenue model:

Example I: I know Filip and Fredrik have done some live-podcast episodes and I really would like to see one. Filip and Fredrik could therefore charge firms to record the podcast live from different places to attract people to visit e.g. a festival, shopping mall or similar.

Example – Value proposition:

Example I: I would really love if Filip and Fredrik could do theme episodes where they interview people. I like the everyday chat they have today but it would be interesting to hear

them discuss politics with the Prime Minister or similar. I believe that the podcast would become even more interesting to listen to.

Example – Customer relationship:

Example I: I believe Filip and Fredrik could improve their customer relationship by being more active on their blog and have different polls after the episode. This would result in listeners being more active and following Filip and Fredrik when they do not listen to the podcast and Filip and Fredrik could use the information from the polls to improve their podcast.

Example - Distribution channels:

Example I: You would have your own app where you can listen to the podcast but also find other information such as links and pictures, similar to your website. I really enjoy the website but I never listen to the podcast from my computer.

Example – Key Activities and resources:

Example I: By showing the listeners their lever of knowledge, experience, friendship and different personalities they will create a dynamic, fun, and interesting podcast. Telling both personal and stories from what has happened in the world will make the listener feel like they are sitting with Filip and Fredrik. I would enjoy if they did so at the same time as they are visiting interesting places, people and/or interesting events. Through user analysis, by using a voting system, they will be able to understand what topics have been the most interesting from the point of view of the listener and what need the listeners have. In addition, the listeners will have a chance to influence their topics by voting on discussion topics.

Example – Customer Segment

Example I: I think Filip and Fredrik should take another perspective on customer segmentation. To develop the podcast, customer segmentation would be needed in terms of 'will to pay'. This is why I propose a podcast that is 60-70 minutes long, where the 30 first minutes are for free and the other 30-40 minutes cost a small amount.

Example – Partnership
Example I: I would prefer to see a greater partnership with other Swedish podcasts. Collaborate and invite them as guests to Filip and Fredrik's podcast. Filip and Fredrik have the biggest podcast in Sweden and would be the strongest player in this podcast-collaboration that would possibly attract more listeners.

Table 5: Examples of business model proposals in accordance with building blocks

4.1.2 Proposals' Quality and Degree of Business Model Change

To grasp what the effects of involving users in the business model innovation are, the proposals have to be assessed in accordance with other users' opinion about the proposals' quality and degree of change. Figure 1 in relation to figure 2 provides an overview of how the group of users has answered. According to previous literature within users' innovation, users' ability to provide innovation often differs a lot (Franke et al., 2006). Firstly, it is interesting to understand how many building blocks users have proposed changes to since it reflects the users' ability to propose radical changes. According to Hartmann et al. (2013) as well as Mitchell and Coles (2003), a business model innovation can be considered more radical when several building blocks are changed in the business model innovation process. A successful radical business model innovation may create a unique combination of building blocks that makes it difficult for competitors to catch up or to adapt similar structure (Mitchell and Coles, 2003). Therefore, it is interesting to understand users' ability to generate proposals that are radical business model innovation in contrast to a minor change. As seen in table 1, the mean number of building blocks proposed to change out of the sample size of 422 users was 1.47. The result shows that 65 % of the sample proposed at least one idea of how Filip and Fredrik's podcast could change some aspect of their business model. However, the range of building blocks changed is one to eight and indicates a wide spectrum of proposals with different degrees of change.

By following the definition of Mitchell and Coles (2003), 21 % (90 users) of the sample propose an idea with new design of four or more components and can be considered a business model innovation (See figure 3). The average number of business model building

blocks changed for ideas considered an innovation was 4.96 (see table 1). 44 % (183 users) of the users proposed an idea where one to three business model building blocks were changed, which is to be considered a business model improvement, according to Mitchell and Coles (2003). For the group considering business model improvement proposals, the average number of business model building blocks changed was 1.75. Out of the sample, 35 % of the users participating in the idea generation contest were status quo proposals (see figure 3). These users either stated that they were satisfied with the existing structure or did not have any proposals of how to change the business model. The distribution, shown in figure 4, indicates that even though there is a relatively low mean, there are users changing up to eight components of the business model. The distribution was expected and follows the long tail of innovation (Fleming, 2007). The results indicate that a relatively large share of the users actually proposed a more radical form of business model development. This is important to note since more radical business model changes can generate new ways to deliver value, which is more difficult for competitors to copy according to Mitchell and Coles (2003). Thus, 21 % of the users participating in the idea generation contest provided ideas that may be very valuable for the firm.

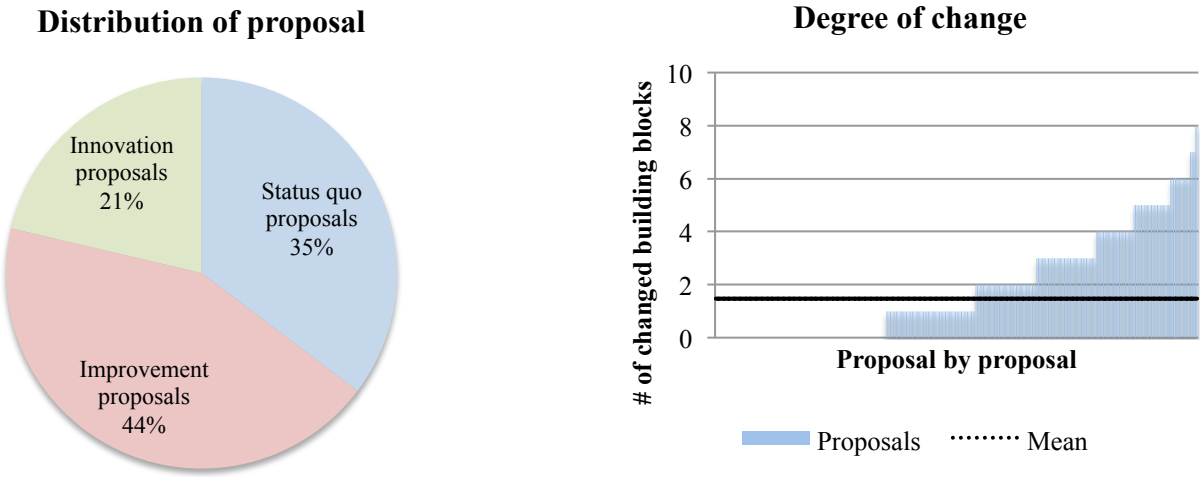


Figure 6 and 7: Degree of change distribution of users' proposals (n= 422)

	Mean	SD	Respondents
Improvement proposals	1,75	0,84	165
Innovation proposals	4,96	0,94	67
Total sample	1,47	0,83	422

Table 6: Degree of change distribution of users' proposals

The findings presented above indicate that some users inhibit, firstly, the ability to propose changes to all business model building blocks, and secondly, the ability to propose (21 % of the respondents) a more radical form of business model innovation compared with other users. However, these findings do not reveal the quality of ideas. Investigating the qualities of the ideas will contribute to a greater understanding of whether or not the ideas of Filip and Fredrik's podcast business model are better, equal or worse compared with the existing. Presented in figure 4, the result reveals that 48 % of all respondents rated their proposals as being as good as the existing business model, 23 % believed the proposal was better than the existing business model and 28 % that it was worse than the existing business model. The result shows that more than 20 % of the proposals actually were better than the existing business model and that 71 % of the proposals were as good or better than the existing business model. As discussed by other scholars (e.g. Pillar & Walcher, 2006; Pötz & Schreier, 2012), the high rating of 71 % may be a result of the self-selection mechanism found in other idea generation contests. However, it also reveals that the users participating in the idea generation contest do have capabilities to generate proposals, which was perceived to be of great quality by other users.

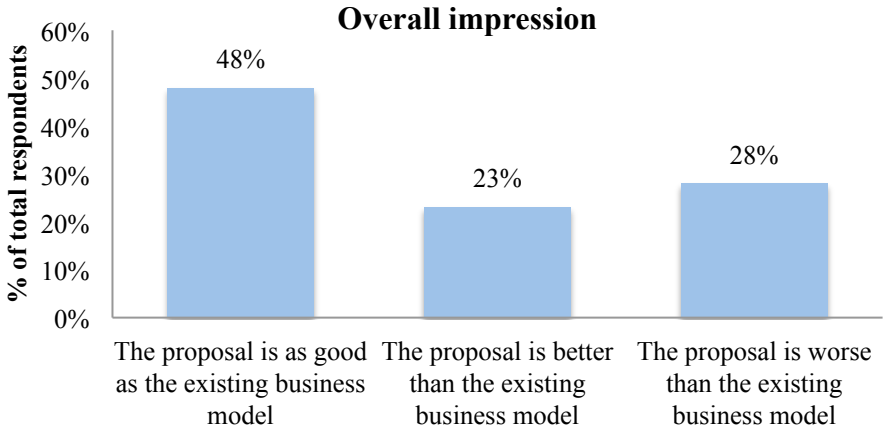


Figure 8: Distribution of overall quality judgment (n= 133)

As discussed in the method chapter quality of ideas is measured by degree of *novelty, value* and *feasibility.* As seen in table 2, the mean of *listing probability* and *value* are relatively high, indicating that many users capture important aspects of the value generation in their proposals. *Feasibility* is also relatively high, indicating that many users believe the proposals are realizable.

Out of the quality variables, *novelty* distinguishes itself from other aspects of quality since it has a relatively low mean, meaning, users do not perceive the proposed idea to differ much compared with the existing business model of Filip and Fredrik's podcast. However, the relatively low mean of *novelty* might be affected by the large degree of improvement proposals (n=97 i.e. 73 %) compared with innovation (n=37 i.e. 27 %). Lastly, the three-way interaction, which provides an *overall quality* measure, is also rather high. Worth noting is also the large standard deviation, meaning that there is a large variation of the overall quality of ideas.

Mean and Standard Deviations			
	Mean	SD	Respondents
Listening probability (1-10)	7,8	1,63	133
Novelty (1-7)	2,42	0,87	133
Overall value (1-7)	4,37	1,05	131
Feasibility (1-7)	5,86	2,23	79[1]
Overall quality[2]	63,05	43,06	79

Table 7: Mean and standard deviations of quality variables

In addition to comparing means, it is interesting to investigate the distribution of ideas in terms of quality. Previous research has found a long tail of innovation, indicating that there are often just a few ideas that are of top quality when involving users (Fleming, 2007). Similar patterns can be found for *novelty* and *value.* Even though *novelty* has a relatively low mean, figure 5 indicates that there are some ideas that are rated well above the mean and can be considered novel ideas. Thus, some users have the capability to propose ideas that are different from Hammar and Wikingsson's existing business model and are reflected by novel thoughts. The same pattern is found for the *value* variable (See figure 6). Notwithstanding the relatively high mean of *value* ratings, there are some users proposing ideas that are well above the mean. Hence, there are users that can propose ideas that generate more value to listeners, partners and the firm compared with their peers.

[1] The lower number of respondents are due to missing values

2 Novelty*Overall value*Feasibility

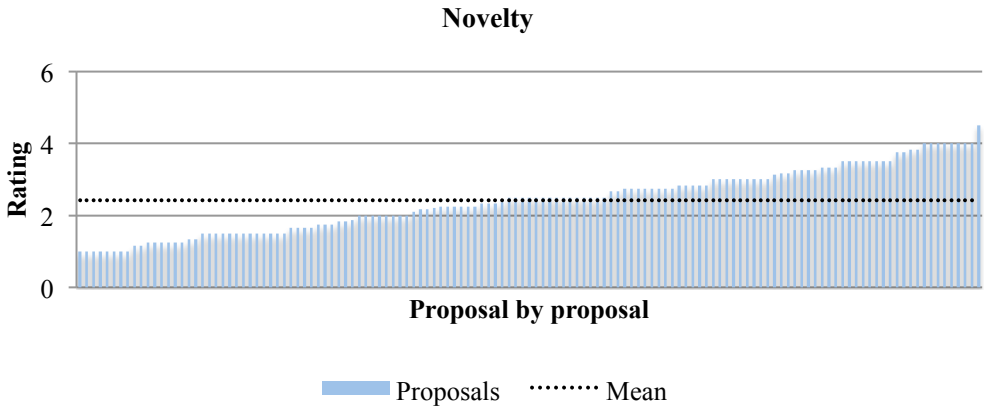


Figure 9: Distribution novelty rating (n=133)

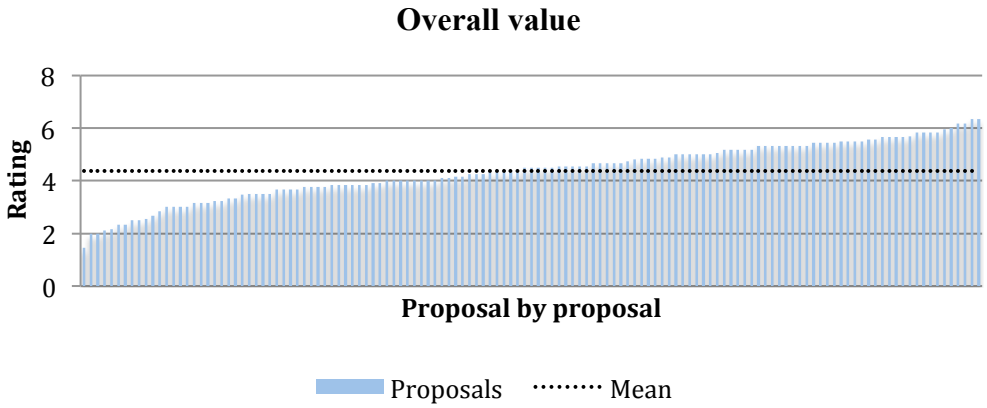


Figure 10: Distribution value rating (n=131)

Worth observing is the distribution of feasibility. As shown in figure 7, the distribution of *feasibility* ratings differs from the distribution of *value* and *novelty* rating. For *novelty* and *value*, there are just a few ideas considered the very best. However, for *feasibility* there is a large degree of proposals that are rated the very best (rating ranging from one to seven). Scholars have stated that when using users as raters, they often capture the customer need better than the practical solution (Toubia & Flores, 2007; Ihl & Pillar, 2009). Toubia and Flores (2007) further state that users sometimes lack the understanding of the certain dynamics of a product or service. In other words, users may have difficulties to assess the

feasibility of ideas since they do not have the same market knowledge to the same extent as professionals. This may be an explanation for the deviating and relatively high distribution of *feasibility* mean compared to other variables.

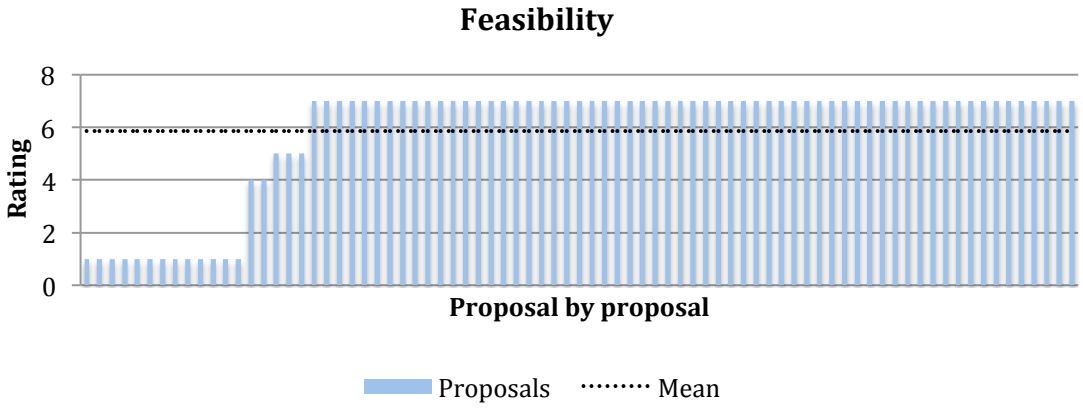


Figure 11: Distribution feasibility rating (n= 79)

4.1.3 Quality in Relation to Degree of Change of Users Business Model Ideas

As noted, users do have the capability activate their need- and solution-based information to propose business model innovation ideas of both high degree of change as well as high quality, respectively. However, it is yet to be established if users can propose ideas that are of high degree of change and quality at the same time. This is of importance in order to establish if users could generate truly valuable business model ideas. A business model proposal with high degree of change does not automatically imply that it is novel, generates value or is realizable. Proposals with low quality would therefore not be useful even though it obtain a large degree of change. On the other hand, proposal of high quality but of low degree of high would generate value to the firm but be very easy for competitors to copy and therefore less useful (Coles & Mitchell, 2003; Hartmann et al., 2013). Thus, if users could generate business model proposals with both high quality and high degree of change, this would potentially be a very useful proposal for the firm.

Firstly, in order to investigate whether users ideas can have both high quality and high degree of change, this study compared means of both the improvement and innovation proposals to

see whether there are any systematic differences in terms of quality. Establishing this difference implies understanding how an innovation proposal is more beneficial rather than an improvement proposal, or the opposite. This further allows conclusions to be drawn on what the effects are of involving users in business model innovation. A Mann-Whitney U test was used to analyze the differences in mean instead of simple t-tests since dependent variables are not normal distributed (see appendix 1 for Shapiro-Wilk test results).

The result from table 8, indicates that the two groups are significantly different in terms of mean comparing *novelty*, *overall value,* and *users listening probability*. First of all, the innovation proposal is perceived to be of significantly (p-value=0,001) higher *novelty* compared with improvement proposals. As described in the method section, *novelty* is composed of *newness* and *originality*. The measure therefore captures both how much the proposal differ compared with the current business model and the extent to which it reflects unique thoughts. The finding confirms Coles and Mitchell (2003) and Hartmann et al's (2013) findings of that business model innovation with more changes also results in more novel and radical innovations.

In addition, innovation proposals do significantly (p-value=0,011) differ in their ability to generate *value*. Thus, users evaluating the proposals believe that innovation proposals would generate more value to them as listeners, but also to Hammar and Wikingsson as well as other stakeholders. Mitchell and Coles (2003) state that the business model innovation can often generate a complete new experience of how to consume a product or service, according to the results. Furthermore, this is something the raters have perceived as positive, according to Mitchell and Coles (2003). However, since this study concerns business models, proposals have to consider the creation, delivering and capturing of value (Chesbrough, 2010; Teece, 2010; Sosna et al., 2010) Therefore, it is also interesting to understand the value creation to other stakeholders, such as partners as well as the firm itself. The result in table 8 reveals that innovation proposals receive significantly (p-value=0,044) better rating regarding the probability for the rater to listen to the podcast with the proposed business model in the future. Thus, the raters are more confident that they would continue to listen to the podcast with the innovation proposal compared with improvement proposals.

More interestingly, there is no significant (p-value=0,400) difference in *feasibility* between the two proposal groups. The proposals considered business model improvement are according to the raters more easily implementable. The finding is in line with Hartmann et al. (2013) stating that radical innovation are more complex and costly to realize compared with incremental changes. However, the difference is not significant and no further conclusions can be drawn since, as mentioned, the distribution is rather skewed (figure 11).

To better compare the proposals it is interesting to look at *overall quality*. As seen in table 8, there is no significant (p-value=0,244) difference between the two groups in terms of overall quality. The result reveals that high degree of change does not automatically mean that the idea is of higher quality. However, innovation proposals are perceived to generate more value and be more novel. The findings of comparing the mean between the two groups show that there is no systematic difference between the two groups. In other words, innovation proposals do not need to be of better quality, and vice versa. However, the findings confirm previous studies (e.g. Hartmann et al, 2013; Mitchell and Coles, 2003) that innovation proposals are significantly more novel.

Mean, Standard Deviation and Mann- Whitney U test

	Improvement proposals		Innovation proposals		Mann- Whitney U test Z value (p-value)	Sample size
	Mean	SD	Mean	SD		
Future listening probability	7,64	1,63	8,25	1,56	-2,019 (0,044)	133
Novelty	2,27	0,85	2,86	0,79	3,339 (0,001)	133
Overall value	4,26	1,08	4,68	0,90	2,017 (0,044)	131
Feasibility	6,02	2,11	5,43	2,62	-,842 (0,400)	79
Three-way interaction	59,71	40,83	72,30	48,57	1,165 (0,244)	79

Table 8: Comparing mean between innovation and improvement proposals

Secondly, whether there are users that can propose ideas that are considered as top ideas among all quality dimensions (*novelty*, *feasibility* or *overall value*) it could be seen as very valuable contribution. In fact, this would be the optimal proposal for firms to implement since it would generate high value to all kinds of stakeholder, be easy to implement and also create a competitive advantage. Looking at all quality variables, commercial potential and being considered a business model innovation the data reveals that out of the 79 possible proposals 4 users (or 5 % of the sample) are considered top ideas in all categories and are considered business model innovation proposals. Thus, the data reveal that there are users capable of actually performing their absolute best in all aspects.

Overall, the effects of involving users into business model innovation seem to be rather positive. Users seem to have the capabilities to take a holistic perspective on business models and generate ideas of high *degree of change, high quality* and *commercial potential*. Lastly, even though no statistical test is provided, 5 % of users in our sample were considered as top ideas in all categories (*quality, commercial potential* and *degree of change*) and indicates an potential in involving users into the business model innovation process.

4.2 Antecedence of the Effect when Involving Users in Business Model Innovation

To summarize previous section, users have the capability to do valuable contribution in business model innovation process with proposals of great quality and large degree of change. However, if a firm would like to pursue business model innovation with the help of its users they would need to whom to address. This section of the findings addresses the antecedence of what makes the proposal of high degree of change or quality.

Previous research in new product and service development has proposed several factors describing the antecedence of success in users' involvement in new product development. Similar theoretical drivers are also explored in this study to better understand what drives users' differences in contributions. To explore the antecedence describing the difference in effects when users innovate business models, a regression analysis will be used. Regression

analysis tests the importance of one theoretical driver in relationship with others and is therefore a suitable analysis for this section.

Firstly, it is interesting to understand the theoretical drivers explaining why some users propose ideas with higher degree of change. To explore the drivers, the number of building blocks the users changed was used (n=422) as the dependent variable in the ordinary least square regression (see table 10). The model investigating the antecedence to degree of change includes four control variables (*age, gender, quality of description* and *the extent to which the proposal describe a business model proposal idea*) in addition to other variables that theoretically explore the antecedence. As seen in table 10, *age*, *gender* and *quality of description* control variables do not have any significant influence of the degree of change. However, the control variable *'to which extent does this proposal describes a business proposal idea'* has a significant influence on the dependent variable. This is an expected outcome since the more building blocks are changed, the more radical the business model innovation is. Thus, such proposals does appear to be more of a business model proposal idea compared with proposals with only one component changed. However, other user characteristics do have a more important role in explaining the degree of change. Correlation table of the different items can be found in appendix 6.

The strongest causalities explaining why certain users that propose business model innovation ideas with higher degree of change are found in the users' experience from business model innovation and personal creativity. Both are theoretically well-established concepts explaining why certain users have been more successful in new product and service development. The strongest causality (p-value = 0,026, Std. Coeff. = 0,278) explaining why certain users propose business model ideas with higher degree of change derives from users that have experience from doing business model innovation previously. Users that have experience from conducting business model innovations that differs much from the previous business model are more likely to propose business model ideas with higher degree of change. As argued by other scholars (e.g. Frank et al., 2006), experience helps users to better understand and analyze existing usage problems more systematically to conceive solutions. Experience put the users in a position where they better can understand structures (Franke et

al., 2006) and since business models are very inter-related (Chesbrough, 2010; Teece, 2010; Sosna et al., 2010), this might give them a better understanding of how to conduct business model innovation from a holistic perspective.

As shown in table 10, personal creativity also has a significant role (p-value = 0,044, Std. Coeff. = 0,211) in describing the degree of change. Other studies (e.g. Kirton, 1976; Im et al., 2003) have also shown that personal creativity is important in describing users' innovation ability. The results from the multi-regression analysis indicates that users' ability to stretch their imagination does have an important role in proposing ideas with an higher degree of change. In addition, this study's findings, in accordance with previous research in the field of user involvement (e.g. von Hippel, 2005; Franke et al., 2006), have found that lead userness has a significant effect on radicalness of users new ideas. As the multi-regression analysis indicates, the lead users ability to position themselves ahead of trends and understand the future benefit also has a significant impact (p-value = 0,159, Std. Coeff. = 0,156) on their ability to propose ideas with high degree of change. Furthermore, this indicates that users need to have some knowledge about the product space (in this case understand the digital entertainment industry) to propose a business model idea with higher degree of change.

Lastly, *perceived fairness* also seems to have a positive impact on degree of change (p-value = 0,217, Std. Coeff. = 0,0128). However, even if the p-value is rather high, it's still an interesting observation. *Perceived fairness* captures how fair the users perceive both the procedure of the idea generation contest and the distribution of value between the firm and the users. As the result from the multi-regression model indicates, the fairer users perceive the idea generation contest, the higher the degree of change that was found in their proposal. Franke et al. (2012), who investigated perceived fairness in idea generation contests, concluded that the willingness to contribute will be higher when users perceive the users engagement within a firm as fair. The results from the multi-regression analysis might reflect that it's not only about users' capacity to contribute but also their willingness to do so. Users need to allocate more energy to propose a business model innovation compared with e.g. business model improvement. Maybe more importantly, users seem to perceive the process of proposing business model ideas as fairly fair. The mean (rated from one to five) was 3.9 with

a standard deviation of 0.77. The ideas proposed might have an important impact on Filip & Fredrik's value creation, delivering and capturing but users still perceive the process and the distribution of value to be fair.

Multi-regression model (OLS)			
	Degree of change		
	Standardized Coefficient	Standard error	p-value
Constant	0	1,787	0,048
Gender	0,011	0,454	0,911
Age	-0,001	0,024	0,996
How well described	0,003	0,073	0,975
To what extent a business model	0,37	0,175	0,001
Lead userness	0,156	0,23	0,159
Personal creativity	0,211	0,222	0,044
Perceived fairness	0,128	0,261	0,217
Experience	0,278	0,126	0,026
R-Square (adj. R-Square)	0,426 (0,338)		
F-value	4,851 (>0,001)		
Sample size	422		

Table 9: Result from multi-regression model (OLS) – degree of change

Overall, well-founded theoretical concepts are able to explain the antecedence of degree of change. The results indicate that experience from conducting business model innovation before that differ much, personal creativity and lead userness are the most important drivers explaining why some users succeed in proposing ideas with high degree of change.

The other aspects of effects, the quality and probability to listen to the podcast with the proposed business model, appear to have similar antecedence drivers. To investigate the attendance for quality aspects, it's interesting to compare extreme groups i.e. the very best ideas in terms of quality. This approach has also been used in several other studies (e.g. Magnusson, 2003; Magnusson et al., 2009; Pötz & Schreier, 2012). Top ideas are often more interesting from both a theoretical and practical perspective since they are more likely to be implemented and show characteristics of users with the capabilities to generate great proposals. Hence, to investigate the antecedence explaining the difference in effects of quality variables, a binary logistic regression model is used. Ideas were graded as top ideas after certain thresholds (see table 11). *Novelty, overall value* and *feasibility* are the dependent variables together describing the quality of ideas. *Age, gender* and *the quality* of the proposal are our control variables. As seen in table 11, the binary regression model has significant correlation with age.

As seen in the table 11, the result from the binary logistic regression model shows that lead userness is an important explanation to why some users succeed when proposing ideas of better quality. The finding confirms several other studies that state that lead userness often have is an important characteristic of users with great qualities of generating innovation. (von Hippel, 2005; Lüthje, 2005; Franke et al., 2006; von Hippel & Olivieria, 2009). Thus, lead userness seems to have an important role explaining the differences between users' capabilities to generate proposals of great quality.

As proposed by previous literature, lead users have the ability to propose ideas that will generate high novelty to users since they are ahead of trend and have high benefit expectations (von Hippel, 1986; Lettl et al., 2006; Franke et al., 2006). However, personal creativity has also been recognized to be an important driver in explaining quality of ideas (Franke & Prügl, 2006). As seen in table 11, this also holds for *novelty* of business model innovation. Lead userness is the most important driver of describing *novelty* (Coeff. = 0.619, p-value = 0.155). However, more surprising is that personal creativity and novelty do not have a significant relationship.

User's ability to propose business model changes that create value to listeners, partners and the firm also seem to relate to lead userness and be an important driver (Coeff. = 0.689, p-value = 0.123). As stated above, lead user often experience needs that normal users will experience months or years after the lead user (von Hippel, 2005). According to the results, this also explains their ability to propose ideas that would appear to create more *value* to listeners, partners and the firm. The last parameter for the quality of the idea is *feasibility*. As shown previously in this study, feasibility has a skewed distribution and neither does lead userness nor personal creativity have a significant impact on feasibility.

To summarize, the findings from exploring the antecedence is that the result is to a large degree in line with previous findings within user innovation literature. Lead userness, personal creativity and experience are according to this study important characteristics to possess to generate valuable contribution in the business model innovation process.

Table 10: Result of the binary-regression model

Binary regression model

	NOVELTY				VALUE				FEASIBILITY			
	Coefficient	Standard Error	Wald	P-value	Coefficient	Standard	Wald	P-value	Coefficient	Standard	Wald	P-value
Constant	-43,746	12521,650	0,000	0,997	-43,844	12044,125	0,000	0,997	0,609	3,238	0,035	0,851
Age	0,070	0,043	2,635	0,105	0,096	0,047	4,220	0,040	-0,126	0,053	5,609	0,018
Gender	-1,087	1,332	0,666	0,414	-0,558	1,082	0,266	0,606	1,322	1,360	0,944	0,331
How well described is the proposal	5,858	1788,807	0,000	0,997	5,935	1720,589	0,000	0,997	0,773	0,204	14,397	0,001
Lead userness	0,619	0,456	1,842	0,155	0,698	0,453	2,380	0,123	-0,071	0,610	0,013	0,908
Personal creativity	-0,284	0,452	0,395	0,530	-0,697	0,482	2,090	0,498	-0,297	0,550	0,291	0,590
Overall perecentage		84,70%				81,00%				73,30%		
Cox and Snell R-Square		0,154				0,218				0,421		
Nagelkerke R-Square		0,266				0,35				0,613		
Sample size		133				131				79		
Threshold values		Other ideas < 3,5 < Top ideas				Other ideas < 5,5 < Top ideas				Other ideas < 6 < Top ideas		

5 Discussion

5.1 Summary and Implication

Business model innovation has received strong support to be an important source for firms to create competitive advantage and is now more relevant than ever (Chesbrough, 2003; Teece, 2007; Chesbrough, 2010; McGrath, 2010; Sosna et al., 2010; Zott et al., 2011, Hartmann et al., 2013). Business model development should be on every manager's agenda. Managers must consider how they can adapt the business model to stay aligned with environmental changes and competitive landscape. It is therefore of importance to continuously improve the process of creating, capturing and delivering value (Chesbrough, 2003; Chesbrough, 2010; Teece, 2010; Sosna et al., 2010). However, business model innovation is a difficult managerial task and requires both time as well as monetary resources to succeed (Sosna et al., 2010; Chesbrough, 2010; McGrath, 2010). Failing with business model innovation is not an option due to the potentially devastating consequences.

Users are great. A rich body of literature has theoretically and empirically proved that users are a valuable resource in development of new products and services. Users have been successful in coming up with great ideas since they possess both the need-based information required to identify the customer pain and the solution-based information to create a solution to heal the pain (von Hippel, 1998; Ogawa, 1998; von Hippel, 2005). Since business model innovation is all about understanding what users want, how they want it and how the firm can organize itself to meet those needs, users have undoubtedly an important role (Teece, 2007; Chesbrough, 2010; Teece, 2010; Sosna et al., 2010). Even if users have been successful in contribution to new product and service development, users' role in the business model innovation process has been rather passive. Scholars state that it is the manager's role to hypothesize what the users want, how they want it, and thus decide the design of the business model (Teece, 2007; McGrath, 2010; Chesbrough, 2010; Teece, 2010). Therefore, on the same premises as users are activated as value creators in new product and services

development, this study's objective is to investigate *what are the effects of user involvement in the business model innovation process* since they could have an important role easing the business model innovation process for firms.

To explore the research gap, this study analyzed data collected from an idea generation contest in collaboration with a Swedish podcast company, Filip and Fredrik's podcast. In the idea generation contest the users were given the opportunity to propose ideas of how to change the business model of the podcast. From the results, four main findings were found. Firstly, users have the capabilities to activate need- and solution-based information to describe what users want, how they want it and how the podcast can organize to create, deliver and capture value. This is a crucial first step in understanding whether and how users can be brought into the business model innovation process. Furthermore, the results indicate that users also have the capability to take a holistic perspective proposing solutions to all different parts of the business model. Of the 422 users who participated in the idea generation contest, 65 % had one or more ideas of how Filip and Fredrik's podcast could improve their business model. Overall, the ideas were fairly distributed among the different building blocks of a business model indicating that users can take a holistic view of a business model.

Secondly, users have the capability to propose ideas that are of large degree of change and thus radical. In accordance with Mitchell and Coles (2003) and Hartmann et al. (2013), radical changes of a firm's business model could generate a great competitive advantage. 21 % of the users proposed four or more changes of Filip and Fredrik's business model and can therefore be considered business model innovations, whereas 44 % proposed one to three changes and are considered a business model improvement.

Thirdly, users have the capability to propose ideas of great quality. Raters state that of the proposals they rated, 23 % are better than the existing business model and 48 % state that the proposal is as good as the existing business model. The result also shows that there are also users that score well above the average in different aspects of quality. Out of the possible proposals, the result reveals that 5 % are considered top ideas. Therefore, they are ideas that are most likely to be successful when implemented.

Lastly, the data indicate that the antecedents explaining why some users are more successful than others are similar to previous literature of user involvement in new product and service development. The result from multi-regression models indicate that lead userness, personal creativity and experience from doing business model innovation before are important drivers. These well-established theoretical concepts have the strongest causality explaining why certain users perform better in terms of quality and degree of change.

To summarize and answer the research question, *what are the effects of user involvement in the business model innovation process,* this study has found that users can provide a valuable contribution to the development of a firm's business model. The findings show a positive effect of involving users due to their capability of generating business model ideas that stem from their own need- and solution-based information. The result further reveals that there are some users with the capability to propose ideas of great quality and a large degree of change. The antecedence that characterizes these users is similar to previous user innovation literature. We can therefore conclude that users could have a similar role in the development of business models as they have when engaged in new product and service development. Thus, some users do have the capabilities to provide important information that can guide managers in their business model innovation process.

The findings of this study indicate several positive aspects of involving users in the business model innovation process. The implications are therefore many-fold and do require attention from both a managerial and a theoretical perspective. From a managerial perspective, the findings of this study imply that users could ease the process of business model innovation resulting in both better business model design and lower risk. Involving users in the business model innovation process results in better access to information that has not been as easily accessible previously. Thus, leveraging users in the business model innovation process would help managers get better insights into how to develop the firm's business model. Using this information, managers would be better equipped when designing their business model to fulfill their users' actual need by creating, delivering and capturing value for both the user and firm.

Furthermore, user involvement would reduce the risk of business model innovation failure. Users can provide guidance of how the firm should develop their business model and what would increase or decrease the value creation. After all, value creation is the most essential aspect in order to be able to capture value (Teece, 2010). From the traditional perspective of business model innovation, managers hypothesize what will and will not be accepted by the customers, making business model innovation a risky process (Chesbrough, 2010; Teece, 2010; Sosna et al., 2010). However, in an ever-changing world firms do need to change and adapt to keep up with the competitive landscape (Chesbrough, 2010; Teece, 2010). Status quo is therefore not an option. Consequently, managers need to realize the potential of including their users to ease the process of business model innovation.

To the authors' knowledge, this is the first study to explore user involvement in business model innovation. Even though the findings are just initial, users seem to have the capabilities to provide valuable contribution. From a theoretical perspective, the findings of this study add to the theoretical development of user innovation, open innovation and business model innovation. The literature stream of user innovation and open innovation has time after time proved how users can be a valuable external source for new product and service innovation. This study extends the theory development by investigating the unexplored area of involving users into business model innovation. The findings indicate that users have greater potential than earlier thought and that users can do great things beyond new product and service development. Users have, through this study, proved that they could in fact be a part of the most strategic decisions such as the design of a firm's business model.

Scholars within the research of business model innovation have proposed that firms have to experiments with their business model since it is through experimentation managers learn what will work or not (Chesbrough, 2010; McGrath, 2010). However, how firms should experiment with its business model is rather unclear. This study shows that users can potentially be great partners to experiment with to get new perspectives on a business model design. Chesbrough (2010) and McGrath (2010) state that experimentation has to be as close to reality as possible. Involving users and letting them take an active part in the experimentation is a great way to learn and understand real market reaction.

5.2 Limitation and Future Research

In regard to the findings of this study, it is important to consider the possible limitations as it might influence the findings. To ensure the reliability of the data, the Krippendorff test was used to capture the inter-rater reliability. Hayes and Krippendorff (2007) state that an alpha equal to 0.67 or more is an acceptable level from the test. However, the Krippendorff alphas in this study range from 0.48 to 0.50. A low alpha was expected since very complex rating tasks, like rating quality of ideas, do not usually receive high inter-rater reliability. Furthermore, since the idea generation contest was done on the Internet, users did not have the opportunity to change scores, integrate with each other or get training, which is suggested by Hayes and Krippendorff (2007). This would most likely increase the inter-rater reliability. However, it is still important to observe that the Krippendorff alpha in this study is slightly below Hayes and Krippendorff's (2007) recommended level.

Scholars have discussed what the consequences are of using users versus professionals in the rating process. Toubia and Florès (2007) state that users are better at capturing need-based information whereas professionals are more responsive to solution-based information. A consequence of letting users rate the ideas might be that they do not fully grasp or understand some business model proposals. This would affect the quality scoring and influence the findings. However, using professionals as raters would potentially generate other problems such as problems to identify what idea brings most value to listeners. However, it is still important to notice how users as raters might affect the findings.

As stated in the finding section, age had a significant impact in the binary logistic regression model. Since there is no direct theoretical explanation to why age should have an important role in explaining the degree of quality, the result should be taken into consideration. This further highlights the need of more studies investigating the antecedence of what users that can be useful to involve in business model innovation.

Even though the findings indicate that users could potentially be a valuable source of business model innovation, it is important to notice that this study is conducted on only one case firm. Future research is therefore encouraged to conduct research with other methods

and in other industries to better understand the consequences of involving users in business model innovation processes regardless of context. However, broad generalizability could be argued for, since the findings appear to follow similar patterns as user involvement in new service and product development. Nevertheless, the findings should still be considered initial evidence of how users can have a very important role in the business model innovation process.

To further explore the role of users in business model innovation and create deeper understanding of the topic, future research can take several paths. Firstly, more research in different settings that confirm the findings of this study is needed. Since this research is based on a Swedish podcast case, it would be interesting to investigate whether similar results would be found in other industries. In addition, investigating how users can be brought into the business model innovation process in other ways than idea generation contests would also be an interesting research aspect to get a more holistic understanding. As such, investigating other methods of involving users in the process of business model innovation may shed light on new aspects.

Secondly, further research is needed to understand what conditions are required for users' involvement in business model innovation to actually work. The business model around Filip and Fredrik's podcast is relatively simple and does not rely on any advanced technology or context. It would be interesting to investigate how a more complex business model or industry would affect users' capabilities to contribute with business model design ideas. If their ability to contribute is affected, this would imply a constraint of when and how users can be involved in the process of business model innovation.

Lastly, more research regarding the antecedence explaining what users are suitable for business model innovation is needed. As concluded in this study, lead userness, personal creativity and experience from business model innovation are important theoretical drivers. However, since a firm's business model involves a variety of different aspects, it would be interesting to explore whether there are also other theoretical drivers. This research could ease the process of identifying suitable users.

In conclusion, further research is needed to fully understand users' role in business model innovation. The findings of this study provide initial evidence that users can provide a valuable contribution and important guidance for managers in their difficult yet important choice of business model design. In fact, Filip and Fredrik's podcast has received 739 ideas of how to improve the business model and has already started to implement several of the ideas in order to improve the process of creating, capturing and delivering value.

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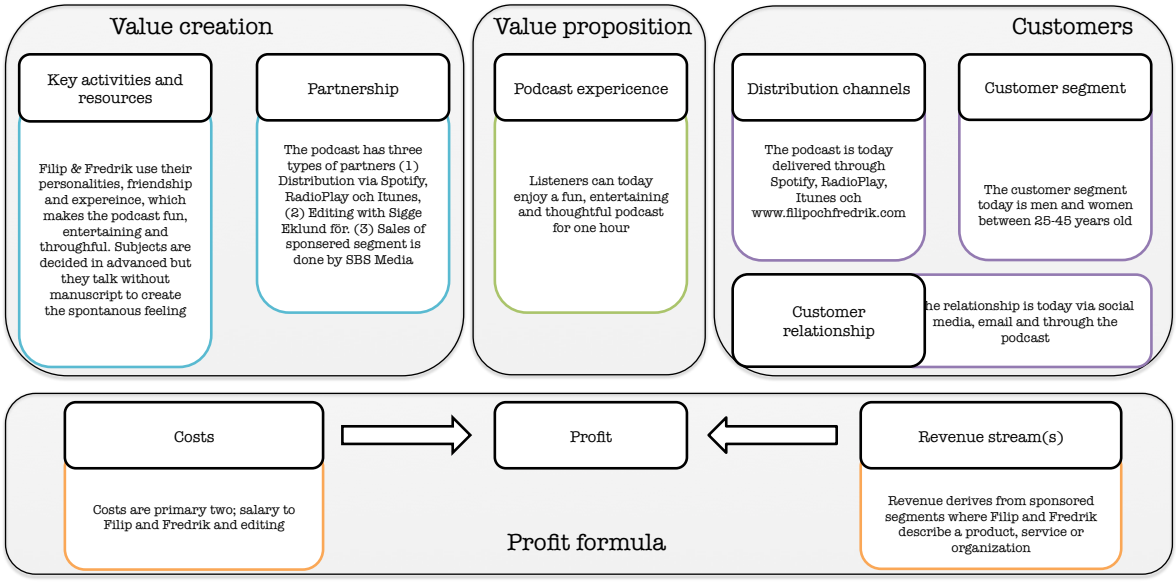
Appendices

Appendix 1: Pre-test sample

Respondents	Business background	Other background	Students	Employee
4	2	2	2	2

Appendix 2: Operationalization of the business model of Filip and Fredrik's podcast



Appendix 3: Test of normality of distribution

Test item	Shapiro-Wilk significance	Distribution	Sample size
Future listening probability	>0,001	No normality of distribution	133
Novelty	0,003	No normality of distribution	133
Overall value	0,034	No normality of distribution	131
Feasibility	>0,001	No normality of distribution	79
Three-way interaction	0,008	No normality of distribution	79

Appendix 4: List of Survey Items

Independent Survey Items

Construct	Survey item	Adapted from
High expected benefit	*HBE1: In my opinion, there are still potential opportunities not being passed up by entertainment podcasts offered today.*	Franke et al., 2006
	HBE2: I have needs related to entertainment podcasts that are not covered by what is currently offered on the market.	Franke et al., 2006
	HBE3:I am dissatisfied with some aspects of entertainment podcasts that are currently available on the market.	Franke et al., 2006
Ahead of trend	*HT1: I usually try out new digital entertainment products such as podcasts as soon as they are offered*	Franke & Shah, 2003
	HT2: I have significantly benefited from early adopting and using new digital entertainment products	Franke & Shah, 2003
	HT3:I have been involved in testing prototype versions of new digital entertainment products	Franke & Shah, 2003
	HT4: I am considered as being on the cutting-edge when it comes to new digital entertainment products	Franke & Shah, 2003
	HT5: I already developed ideas for new digital entertainment products myself	Franke & Shah, 2003
Perceived fairness	*PF-C1: This idea generation contest, gives both participants and Filip & Fredrik a fair stake in the process of developing the podcast's business model*	Frank et al., 2012
	PF-C2: Regarding what Filip & Fredrik and the participants get from this process, there is justice	Frank et al., 2012
	PF-C3: For those submitting an idea, the benefit offered for participating in the idea generation contest exceeds the effort required.	Frank et al., 2012
	PF-C4: Submitting a proposal to this idea generation contest might be a good deal for anybody submitting an idea	Frank et al., 2012
	PF5 - Proposal: If your proposal of the new business model would be turned into practice, do you think that in this model both the listeners and Filip & Fredrik get a fair share?	Frank et al., 2012
Personal Creativity	*PC1: I enjoy spending time looking beyond the initial view of the problem*	Franke et al., 2013
	PC2: I enjoy working on ill-defined, novel problems	Franke et al., 2013
	PC3: I enjoy stretching my imagination to produce many ideas	Franke et al., 2013
	PC4: I like to work with unique ideas	Franke et al., 2013
Knowledge	*Knowledge1: What is your highest level of completed education? 1=elementary school 2=High school 3=College or university 4= Ph.D. or similar*	Self-constructed
	Knowledge2: What type of education do you have? 1 = Without business background 2= With business background	Self-constructed

	Knowledge3: I've received education on how to construct a business and manage the implications of it	Self-constructed
	Knowledge4: I have thorough knowledge of how to seize a business opportunity	Self-constructed
	Knowledge5:I have already identified at least one business opportunity and tried to seize it	Self-constructed
	Knowledge - Product: I have thorough knowledge of what goes into a production of a podcast	Self-constructed
	Knowledge - Business models: I always try to keep up to date with regard to the new business models concepts and news regarding firms with new business models	Franke et al., 2006
Experience	*Business experience1: I have experience in business development gained in my job(s)*	Self-constructed
	Business experience2:I have experience in business development gained via running my own companie(s)	Self-constructed
	Business experience: Are you working in role where you have to make business decisions? 1= No 2= Yes	Self-constructed
	if yes – How many years have you possessed that kind of role?	Self-constructed
	Business experience3:Have you experience from founding your own or been involved in starting a firm? 1= No 2= Yes	Self-constructed
	Yes/No, if yes – How many have you started?	Self-constructed
	Yes/No, if yes – How many years have you been running your own business?	Self-constructed
	Business Experience -BM: Do you have experience from developing or being involved in developing a business model?	Self-constructed
	How many times?	Self-constructed
	Yes/No, if yes - How much did it differ form the previous business model (1= very little and 5 = very much)	Self-constructed
Industry experience	*Industry experience1: In which industry are you currently working in? 1= Other 2= Digital entertainment industry*	Self-constructed
	Industry experience2: I have great experience of working within the media industry or similar industries.	Self-constructed

Dependent Survey Items

Construct	Survey item	Adapted from
Degree of change	*Number of business building blocks changed*	Mitchell & Coles, 2003
Quality	*Novelty: How "new" do you perceive this business model idea to be compared to existing podcast business models? (1=not very new, 7=very new)*	Franke et al., 2013

	Originality: How much does this idea reflect truly creative and unique thoughts? (1=not very original, 7=very original)	Franke et al., 2013
	Value to listeners: How much value would this business model idea provide to listeners (1=not much value, 7=a lot of value)	Self-constructed
	Value to Filip and Fredrik's podcast: How much value would this business model idea provide to Filip and Fredrik's podcast (1=not much value, 7=a lot of value)	Self-constructed
	Value to Filip and Fredrik's podcast: How much value would this business model idea provide to Filip and Fredrik's podcast (1=not much value, 7=a lot of value)	Self-constructed
	Value to Stakeholders: How much value would this business model idea provide to other stakeholder groups mentioned in the idea proposal (1=not much value, 7=a lot of value) - (This was optional)	Self-constructed
		Self-constructed
	Feasibility: How easy would it be for Filip & Fredrik's podcast to implement this business model idea? (1=very difficult, 7=very easy)	Self-constructed
Overall impression	*To which extent does this proposal describe a business proposal idea (0= this is not a business model idea, 10= this definitely is a business model idea*	Self-constructed
	Do you think this business model idea is: ( ) better than the existing business model around F&Fs podcast ( ) as good as the existing business model around F&Fs podcast ( ) worse than the existing business model around F&Fs podcast	Self-constructed
	What would be your future listening probability of the podcast when this business model idea would be implemented (0= No chance, would never listen 10= Certain, would definitely listen)	Self-constructed

Appendix 5: Cronbach alpha

Lead userness

Cronbach's Alpha: 0,76

N of Items: 8

Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
HBE1: In my opinion, there are still potential opportunities not being passed up by entertainment podcasts offered today.	19,62	29,495	0,453	0,736
HBE2: I have needs related to entertainment podcasts that are not covered by what is currently offered on the market.	20,28	29,099	0,389	0,748
HBE3:I am dissatisfied with some aspects of entertainment podcasts that are currently available on the market.	20,32	29,857	0,363	0,752
HT1: I usually try out new digital entertainment products such as podcasts as soon as they are offered	19,36	29,109	0,463	0,734
HT2: I have significantly benefited from early adopting and using new digital entertainment products	19,23	29,556	0,46	0,735
HT3:I have been involved in testing prototype versions of new digital entertainment products	20,75	26,941	0,5	0,727
HT4: I am considered as being on the cutting-edge when it comes to new digital entertainment products	19,82	27,062	0,598	0,708
HT5: I already developed ideas for new digital entertainment products myself	21,21	29,82	0,45	0,736

Personal Creativity

Cronbach's Alpha: 0,792

N of Items: 4

Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PC1: I enjoy spending time looking beyond the initial view of the problem	12,58	5,465	0,537	0,773
PC2: I enjoy working on ill-defined, novel problems	12,58	5,223	0,616	0,734
PC3: I enjoy stretching my imagination to produce many ideas	12,49	5,053	0,635	0,724
PC4: I like to work with unique ideas	12,36	5,419	0,623	0,732

Percieved Fairness

Cronbach's Alpha: 0,766

N of Items: 5

Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PF-C1: This idea generation contest, gives both participants and Filip & Fredrik a fair stake in the process of developing the podcast's business model	16	10,024	0,572	0,712
PF-C2: Regarding what Filip & Fredrik and the participants get from this process, there is justice	15,83	9,898	0,569	0,713
PF-C3: For those submitting an idea, the benefit offered for participating in the idea generation contest exceeds the effort required.	16,15	9,647	0,472	0,753
PF-C4: Submitting a proposal to this idea generation contest might be a good deal for anybody submitting an idea	15,64	10,164	0,605	0,704

PF5 - Proposal: If your proposal of the new business model would be turned into practice, do you think that in this model both the listeners and Filip & Fredrik get a fair share?	15,73	10,265	0,491	0,74

Overall Value

Cronbach's Alpha: 0,774
N of Items: 3

Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Value to listeners	8,515649	5,14	0,57	0,739
Value to Filip and Fredrik's podcast	8,825191	5,393	0,695	0,63
Value to stakeholders	8,88715	4,412	0,596	0,727

Overall Novelty

Cronbach's Alpha: 0,890
N of Items: 2

Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation
Degree of newness	2,270927	0,78	0,803
Degree of Originality	2,587594	0,908	0,803

Appendix 6: Correlation table

		Personal creativity	Novelty	Overall quality	Listening probability	How well is the proposal described?	Age
Personal creativity	on rrelation	1	0,102	-0,025	,295**	0,011	0,084	-0,057	-0,019	-0,081
	Sig. (2-tailed)		0,251	0,982	0,830	0	0,901	0,337	0,606	0,698	0,096
	N	422	133	133	79	422	133	133	84	422	422
Novelty	Pearson Correlation	0,102	1	,594**	,798**	0,129	,445**	,721**	,398**	-0,075	-0,016
	Sig. (2-tailed)	0,251		0	0	0,139	0	0	0	0,394	0,856
	N	133	133	133	79	133	133	133	84	133	133
Overall value	Pearson Correlation	0,002	,594**	1	,731**	0,029	,628**	,619**	,620**	-0,012	-0,066
	Sig. (2-tailed)	0,982	0		0	0,744	0	0	0	0,886	0,451
	N	133	133	133	79	133	133	133	84	133	133
Overall quality	Pearson Correlation	-0,025	,798**	,731**	1	-0,054	,630**	,624**	,601**	-0,053	-0,025
	Sig. (2-tailed)	0,830	0	0		0,659	0	0	0	0,641	0,824
	N	79	79	79	79	79	79	79	60	79	79
Lead userness	Pearson Correlation	,295**	0,129	0,029	-0,054	1	-0,007	0,123	-0,024	-0,083	-0,036
	Sig. (2-tailed)	0	0,139	0,744	0,659		0,941	0,157	0,831	0,089	0,460
	N	422	133	133	79	422	133	133	84	422	422
Listening probability	Pearson Correlation	0,011	,445**	,628**	,630**	-0,007	1	,471**	,633**	-0,043	-0,051
	Sig. (2-tailed)	0,901	0	0	0	0,941		0	0	0,623	0,557
	N	133	133	133	79	133	133	133	84	133	133
To which extend is this a business model proposal	Pearson Correlation	0,084	,721**	,619**	,624**	0,123	,471**	1	,393**	-0,047	-0,069
	Sig. (2-tailed)	0,337	0	0	0	0,157	0		0	0,592	0,427
	N	133	133	133	79	133	133	133	84	133	133
How well is the proposal described?	Pearson Correlation	-0,057	,398**	,620**	,601**	-0,024	,633**	,393**	1	-0,006	-0,171
	Sig. (2-tailed)	0,606	0	0	0	0,831	0	0		0,955	0,121

	N	84	84	84	60	84	84	84	84	84	84
Gender	Pearson Correlation	-0,019	-0,075	-0,012	-0,053	-0,083	-0,043	-0,047	-0,006	1	-0,029
	Sig. (2-tailed)	0,698	0,394	0,886	0,641	0,089	0,623	0,592	0,955		0,548
	N	422	133	133	79	422	133	133	84	422	422
Age	Pearson Correlation	-0,081	-0,016	-0,066	-0,025	-0,036	-0,051	-0,069	-0,171	-0,029	1
	Sig. (2-tailed)	0,096	0,856	0,451	0,824	0,466	0,557	0,427	0,121	0,548	
	N	422	133	133	79	422	133	133	84	422	422

** Correlation is significant at the 0.01 level (2-tailed).