Designing Innovation of Meanings – A Competitive Advantage

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Credits: 30 ECTS
Authors: Jonas Magnusson
         Johan Nilsson
Tutor: Prof. Friederike Welter
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Designing Innovation of Meanings -
A Competitive Advantage

Jonas Magnusson¹ and Johan Nilsson¹

¹Jönköping International Business School, P.O Box 1026, SE-551 11 Jönköping, Sweden. majo0909@student.hj.se; nijo0908@student.hj.se

Design is a resource that could be better utilized by companies in order to create growth and sustainable innovation in the future. Numerous scholars have therefore stressed the importance of forward-looking executives and designers in today’s organizations that realize the importance of design as a differentiator. This research intends to illustrate how innovation of meanings is a future competitive advantage and to show how companies can benefit from design as an innovation tool. New product meanings can be pushed upon the market through proposals, something that is being compared to the traditional user-centred methods where user needs are being scrutinized. The theoretical framework identifies four factors that can be set in relation to any company in order to investigate its stance towards innovation of new meanings. The research is limited to focus on two case companies and complemented by information from Jönköping School of Engineering, being their mutual external source of novel design ideas. The case studies show how the four factors all rely on a vision that supports design and affects the firms’ ability to capitalize on novel ideas found among external sources. This study concludes that a co-occurring search of novel design interpretations and market pull innovations is of highest importance. It further discusses how to interact with external sources in a way that does not block their potential to explore new product meanings.

1. Introduction

Design is a word that makes most of us think of aesthetics and beautiful combinations in terms of form and colour. Others might think of the term as an, in the business world, overused fad that will come and go (Dunne & Martin 2006; Rylander 2009). Nevertheless, design can make customers desire one product over another, it can help products to stand out and possibly make customers loyal to brands. But design can be even more. After many years with focus on quality management and Six Sigma, together with downsizing and outsourcing of production to low cost countries, companies have started to realize that the way to success goes through another path (Martin 2009). Neutron President Marty Neumeier (2008, p.12) identifies an exceptional market disorder that makes differentiation the most powerful strategy and
the primary beneficiary for innovation. Neumeier claim; “If you wanna innovate, you gotta design”, stressing that design contains the skills to identify possible features, invent exciting products, build bridges to customers and crack wicked problems. Roy and Riedel (1997) are in line with the statement and stress how new competitive advantages are likely to be generated through design.

The reasons for searching out for new innovations are today clear to most companies, yet many struggle to find a good way to survive in the new ‘Creative Economy’ (Nussbaum 2005). This article discusses a theory of seeking out a new competitive advantage that recently has attracted considerable interest from scholars and practitioners, explicitly ‘innovation of meanings’.

Products are generally designed to fit our needs and wants but the design of products can also contribute to another dimension; the dimension of meanings. Roberto Verganti has in his book Design-Driven Innovation (2009) focused on how design can drive innovation through the generation of new meanings to products. He states that: “… people do not buy products but meanings” (Verganti 2009, p.4). Changing the meaning of products requires a design that ads more to a product than utilitarian function and aesthetics. Innovating new meanings through product design is not new itself but have definitely received an increasing attention from several scholars who have researched; Design Thinking (Martin 2009; Neumeier 2008; Rylander 2009; Vogel 2009), Design-Inspired Innovation (Utterback et al. 2006), Total Design Concept (Sirmivasan et al. 2008) and Design Strategy (Nussbaum 2005).

This article begins by defining innovation of meanings and describes how design plays a major role in future innovation work. Examples where innovation of meaning has been achieved are presented to illustrate its potential to generate a competitive advantage. The article later describes the theoretical findings in terms of four factors that are essential for achieving innovation of meanings. The factors discussed are; 1) the importance of being immersed in the design discourse in order to gain input from external sources, 2) the vision and stance towards design when innovating, 3) how absorptive capacity and internal knowledge is crucial in order to understand and capitalize on novel ideas from external sources, and 4) the difference in push and pull innovation strategies.

The theory is later set in relation towards two case companies’ different ways of working with external sources of input, innovation and design. The relationship between schools and its students as an external source of idea input towards the case companies is highlighted. Both sides of the relationship are reviewed in order to identify possible complications in the innovation of meaning process.

2. Theoretical Framework

The theoretical framework aims at answering the following research questions:

RQ 1: How is innovation of new meanings through design explained as a possible competitive advantage?

RQ 2: What factors are critical to companies in order to foster new innovation of meanings?

The theoretical framework will also illustrate examples on innovation of meanings in order to clarify and make the topic more understandable.

2.1. Innovation of meanings

Great products grow in meaning over their lifetimes. They capture our hearts and make our lives easier, better or more interesting. Instead of wasting resources on highly competitive market places, Kim and Mauborgne (2005)
suggest that firms should seek out uncontested market space with products that bring new value and meaning to customers. They phrase the uncontested market space as ‘blue oceans’. Stefik and Stefik (2004) refer to solutions that satisfy previous undiscovered needs in the ‘blue oceans’ as breakthrough ideas and Verganti (2009) describe it as radical innovation of meanings.

Allessi’s homeware, Family Follows Fiction, has designed a new meaning by adding a cartoony, colourful touch to their products, playfully naming it after Louis Sullivan’s (1896) old and out-dated dictum; Form Follows Function. A dictum that entail that a clear understanding of the function is essential when forming tangible products (Krippendorff 2006). Even superb functionality and low price no longer assures success for a new product. Excellence is instead achieved when a product is eminently elegant and has a design that generates a meaningful value to the customers. These kinds of differentiated products with unique customer benefits and superior value for the users, has five times higher success rate, bears for four times the market share and four times the profitability opposed to products that does not have the unique new meanings (Cooper 1999).

The experience of meaning is a product’s core of emotional and symbolic value and is, in addition to its functionality, what really matters to the user. The operative need of the user is fulfilled by the products functionality whilst one’s emotional and socio-cultural needs are fulfilled by its meaning (Utterback et al. 2006). An innovation of meaning does not have to be radical in its technology. It may occur together with an incremental technological innovation or when features change in context in order to generate new meanings to its users. In some cases this means that the new products are not always invented from scratch, they are more correctly innovated through combinations of different existing elements (Schumpeter 1934). This is where design plays a major role.

When Nintendo created the Wii game-console, they did not only design a product that was easy and fun to use (incremental improvement of utilitarian function); they introduced a new meaning to the gaming industry. Suddenly people were not supposed to just sit down in their couches playing with their thumbs. This new console made people move and participate in the gaming in a new way. The console have even been used as a work out method and have spread joy in a new active way that have made competing consoles somewhat obsolete. Consequently, a new meaning was designed and a huge competitive advantage with it (Verganti 2009).

Raymond Loewy’s 1934 refrigerator redesign is an ever applicable example of designs ability to create new meanings and competitive advantage. Lowey merged aesthetics, materials and manufacturing in order to transform the ugly and loud electric refrigerator of the time into an interior design machine. In one year, the sales of Sears’s Coldspot almost quadrupled up to 250,000 units, without significant change in core technology. Loewy’s design thinking and ability to integrate contemporary aesthetics made him recognized as having the most skill at marrying business strategy with design and the only industrial designer to ever grace the cover of Time magazine (October 31, 1949) (Vogel 2009).

The customer experience is affected by a products aesthetics, meaning and emotional contribution (Desmet & Hekkert 2007), all of which Lowey united in the refrigerator to give it a new meaning. The Coldspot became a product that everyone wanted in their kitchen. Hence, the industry itself had been blinded to see this huge possibility before Lowey contributed with his way of interpreting the meaning of a refrigerator through a new design.
2.2. Designing competitive advantage

As we have seen with the previous examples, products or services with design that carries a new meaning and breakthrough ability has the power to change or create an entire industry (Stefik & Stefik 2004).

In a 2008 survey sponsored by Neutron and Stanford University, 1,500 top American executives were asked to identify the ‘wickedest’ problems troubling their companies today. Wickedest meaning a problem with characteristics making it seem insoluble. New concerns that made the top ten included; embracing social responsibility, collaborating across silos, aligning strategy and customer experience, addressing eco-sustainability and the number one on the list; balancing long-term goals with short-term demands. These concerns differ from similar list of the twentieth-century managers who were more obsessed with Total Quality Management (TQM) and Six Sigma programs, something that is highly tangible and imitable, and now can be seen as a commodity (Neumeier 2008; Sirnivasan et al. 2008; Utterback et al. 2006). Customers of today expect every product and service to be reliable, eliminating the competitive advantage. Hence, TQM and Six Sigma systems knock out waste from an organization but will not generate sustainable competitive advantages, since it is easy to copy for any competitor (Martin 2009; Sirnivasan et al. 2008).

Some might think that the most unique and fascinating products that strike the markets origin from eureka moments. But in fact innovations are most of the time created after a long period of research followed by a period of trials and errors (Evans 2005). Hamel (2006, p. 76) argue that; “there is no sausage crank for innovation, but it’s possible to increase the odds of a “eureka!” moment by assembling the right ingredients.”

The examples in the section above show how design can be the ingredient that makes a substantial difference when seeking out the new. Hence, design carries the intangible attribute that has the ability to form the next competitive advantage of your firm. However, the kind of design ideas that can breed from innovation of new meanings are hard to find; an issue that we now will investigate further.

2.3. Design discourse participation

Sofka & Grimpe (2010, p.311,) argue that; “... managers need to develop specialized search strategies to achieve innovation success.” Such strategy could include participation in the design discourse ²; referring to the constantly on-going discourse that firms together with researchers, artists, designers, suppliers, customers and schools are recommended to have in order to exchange valuable ideas, concepts and knowledge (Verganti 2009). Rothwell (1992, p.222) build on to the theory of design discourse by describing how; “The overall pattern of the innovation process can be thought of as a complex net of communication paths, both inter-organizational and extra-organizational, linking the firm to the broader scientific and technological community and to the marketplace.”

People participating in the discourse are important relational assets for companies aiming towards innovation of new meanings. They can help to give insight on, or interpretations of, new meanings and are therefore labelled interpreters (Verganti 2009).

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² Discourse in itself can be defined as; “… a connected set of statements, concepts, terms and expressions which constitutes a way of talking and writing about a particular issue, thus framing the way people understand and act with respect to the issue.” (Watson, cited in Alvesson & Kärrman 2000, p. 1131)
Garvin & Levesque (2006, p. 104) describe how; “… it is hard to find marketplace insights for markets that don’t exist.” This statement explains why the novel innovation of meanings can be described as being built upon interpretations. Since there are little or no facts from the marketplace to build from, you need to gain the novel ideas from another source.

Interpreters do not necessarily have a special education or position within an organization, but they are experts within their field and have the ability to pursue knowledge about how to give meaning to things. Interpreters do not always innovate themselves, it is more correct to say that interpreters can envision people’s future context of life. This generates answers to what future meanings people possibly could be looking for and provides the start to what could become an innovation of meaning and a competitive advantage.

2.4. Vision & absorptive capacity

If a company wants to be successful in innovating new meanings, then their attitude towards design must be clearly stated in its vision and spread across the organization (Verganti 2009). Once again we can refer back to Neumeier (2008, p.12) who claim; “If you wanna innovate, you gotta design”. If there is no shared design vision, then you cannot expect design driven innovations to occur. Top executives therefore need to ask themselves; “What is the deepest reason people will buy our products?” and “What meaning could they be looking for?” (Verganti 2009, p.220).

Vogel (2009) use success stories from the early twentieth century to describe the kind of educational model and vision that he thinks many companies are missing today. AEG for instance was first to make people understand how to integrate electrical power into their lives. Vogel (2009) believe that Apple and P&G are today’s AEG, where P&G and their CEO A.G. Lafley have championed design thinking by growing internal design capability as well as connecting with consultancy firms and design and business innovators who have “… transformed P&G from a chemical company into a ‘experience’ company” where consumers can personalize their usage of products. Vogel (2009, p.27) claims that this business success is due to “… the presence of both an innovative CEO who sees design as an investment, not a cost, and a strategic design director or consultant who can place the value of design in the centre of the company.” Apple illustrates an extremely well-used example when it comes to describing the value of design vision and innovation, but their 5 years on the throne as ‘the world’s most innovative company’ cannot be overlooked (Andrew et al. 2010). Former Apple CEO John Sculley describes how “everything at Apple can be best understood through the lens of designing” and that Apple is the only company today where design report directly to the CEO (Being Steve Jobs’ Boss 2010).

The importance of managers design knowledge in the innovation process is clearly highlighted by both Neumeier (2008, p.15) saying; “Most business managers are deaf, dumb and blind when it comes to the creative process. They have to do more than hire designers. They’ll need to be designers.” and by Dunne & Martin’s (2006, p.513) declaration; “Today’s business people don’t need to understand designers better, they need to become designers.” A more toned down view would be that executives need to embrace a ‘design attitude’. A clear design attitude and a vision striving towards innovation of meanings are necessary when trying to build relationships with interpreters in the design discourse (Verganti 2009).

Interpreters are hard to discover and organizations have to be alert when looking for people with novel interpretations. Cohen and Levinthal (1990) describe how ‘gatekeepers’
can be the firm link to people with novel ideas. Galbraith (1982) phrases the same function as sponsors whilst we have decided to call them corporate interpreters. They are persons who make their own interpretations of what people may need and want in future contexts and who immerse themselves in the design discourse in order to build relations with external interpreters, who also may be sources of novel interpretations [Figure 1]. On the other hand, building relationships through corporate interpreters is not enough. Christensen and Overdorf (2000) describe how managers need to start thinking in terms of capabilities of the organization in the same careful way as they think of the specific individuals’ capabilities. The organizations need to understand and have the ability to see how to capitalize on interpretations from external sources. It requires a supporting vision and strategy, but also an internal ability of the firm and its personnel to absorb knowledge, ideas and novel interpretations to be able to further develop the information from the interpreters. Cohen and Levinthal (1990) phrase this issue as; absorptive capacity, and argue that; “... prior related knowledge confers an ability to recognize the value of new information, assimilate it, and apply it to commercial ends.” Shipton et al. (2005) are in line with the statement and argue that innovation depend on a firm’s ability to create, transfer and implement knowledge. This is an issue that is tied back to HRM practices of the firm. Consequently, it is not enough to apply a method, there has to be an understanding within the organization for what the method may generate and knowledge of how to capitalize on its information. Without accurate absorptive capacity and a HRM practice supporting its continuous development, great interpretations of meanings with possible competitive advantages potential will continue to pass by organizations unnoticed.

2.5. Exemplifying Interpreters

Corporate interpreters are immersed in the design discourse and can through their absorptive capacity find interpreters among any participant in the discourse [Figure 1]. These interpreters can be exemplified as; lead-users, schools and its students, consultants, suppliers, firms in other fields, etc. Referring back to Lowey who designed the Coldspot refrigerator we see how he served as an external interpreter with his novel interpretation of what a refrigerator could mean through a novel design. Lowey was an external consultant who had been attracted to give a new design to a boring refrigerator. The result was an innovation of meaning that created a long lasting competitive advantage.

Another example of interpreters is the suppliers, which we have come across in the example of Nintendo Wii and STMicroelectronics. Suppliers can both invent materials and foresee the sociocultural and aesthetic implications of their inventions. STMicroelectronics was the source of interpretation who suggested their technology of MEMS accelerometers (that can be used to recognize movement) to Nintendo because they wanted “... to enable people to play [game consoles] through real and intuitive moments.”(Verganti 2009, p.83) This was the start of the success story of Nintendo Wii, which new design of meaning was purposed to the market place and changed an entire industry. We hereby see how STMicroelectronics (the supplier) served as an interpreter. The relationship between Nintendo and STMicroelectronics fostered this interpretation, that later were developed into a new competitive advantage.

Scientific advisor for MEMS, Bruno Murari makes an explicit contribution to the innovation of meaning theory by arguing: “If a client asks for a specific feature or component, it means
that someone else has already created it” (Verganti 2009, p.82); a statement which clarify the complexity of interpreting what the next innovation of meaning could be.

The Nintendo Wii case is not only an example of an interpreter but also proof of the fact that great innovations of meanings do not need to be innovated from scratch. They can as we described earlier, be innovated through a design of new combinations. In this case the new combination was a switch in context for the accelerometers. Building on to this example we can refer to Gemünden, Heydebreck and Herden (1992) whose study concludes that R&D co-operation between firms is one of three proven essential factors for innovation success. Something clearly showed in the example of Nintendo Wii and STMicroelectronics who together designed a new innovation of meaning.

Mainstream users are not of interest when searching for interpreters in the discourse. When considering users, focus should instead be given to a small group who are referred to as lead-users (Von Hippel 1986). Lead-users recognize needs that the mainstream users do not understand until months or even years later. In other terms, the lead-users serve as need forecasters (Von Hippel 1986). In addition Gemünden, Heydebreck & Herden (1992) makes a short and explicit contribution to the lead-user theory by stating that lead-users do not only recognize future needs and trends, but take a part in forming them too. The lead-users normally see a problem where they can benefit by a solution and thereby also take a part in forming it. With Von Hippel’s concept of lead-users in mind we see how this is contributing to the interpreter concept of Verganti (2009), by underlining which users to interact with in the discourse. Figure 1 illustrates how the different actors in the design discourse interact. Students, suppliers and lead-users here exemplify external sources. Note that, the corporate interpreters either interpret the new meaning from persons on their own, or they could gain insight from its external sources of interpretation, e.g. lead-users, students, suppliers.

2.6. Schools and R&D labs as interpreters

Radical changes in technology and product meanings are well known for changing our society and the way we live our lives, and is therefore of natural interest to educational and research institutions. Design schools are explicitly good at researching the interactions between technology, design languages and meanings, abilities that make them attractive for firms who are trying to profit from their work (Utterback et al. 2006; Verganti 2009).

Universities and research institutions accumulate knowledge that can play an essential role in innovation work (Gemünden, Heydebreck & Herden 1992; Fritsch & Slavtchev 2007). However, few companies get it right when it comes to capitalize on research.
when they go to universities and R&D labs to look for ‘ready-to-use’ solutions (Sofka and Grimpe 2010; Verganti 2009). Sofka and Grimpe (2010, p. 312) argues that; “... the knowledge produced in these academic institutions may be far from application and typically requires substantial investments into developing the final products”. In addition, the knowledge produced at universities and R&D labs are according to Stefik & Stefik (2004) and Fritsch & Slavtchev (2007) on a basic level. However, they both stress the importance of further bridging the research on to application. Stefik & Stefik (2004) also describe how this issue lies in the hands of the companies, who need to invest in the seeds that research has developed. Hence, firms have to understand that design schools and research institutes may not generate great finalised products, but can be good at breed for the start of an excellent product. This brings us back to the issue of absorptive capacity (heading 2.4) which focus on understanding and capitalizing on novel interpretations. Interpretations which in this case comes from universities and research institutions. Once again we see how schools and R&D institutions together with its students, as well as other sources in the discourse, may be interpreters for future means of products; but only if managed correctly.

2.7. Push strategy of innovation

Innovation literature has to a broad extent been stressing the importance of external input in the innovation process in order to succeed (Sofka & Grimpe 2010; Cohen & Levinthal 1990; Gemünden, Heydebreck & Herden 1992; Rothwell 1992; Hagerdoon & Narula 1999; Jonson 2010; Utterback et al. 2006; Verganti 2009). We also see in the previous section how interpreters serve as external sources of input, when developing innovation of meanings. A study conducted by Gemünden, Heydebreck and Herden (1992) with 848 manufacturing companies has proved how; a) close contact with customers, b) linkages to universities and research institutes, and c) R&D co-operation with other companies, are crucial for technological innovation success. However, there is a difference in view on external input, which will be discussed in order to grasp the complexity and the ambiguity of how to foster innovations of new meanings opposed to incremental improvements.

Engineers and product developers have during decades been encouraged by R&D theories to scrutinize end-users needs and perceptions on product features and aesthetic design (Verganti 2009). The user-centred approach aims at understanding and finding out how to meet user needs and desires by setting the user in centre of the R&D process (Urban & Hauser 1980; Galbraith 1982; Rothwell 1992; Mulvenna et al. 2010). User-centred approaches often take the form of focus groups or different sort of workshops, where users have a say about how they experience products. However, Verganti (2009) argue that the user-centred view of developing products is market pull oriented, since it is examining how to meet current needs of mainstream users. The process is therefore just incrementally improving what already exists and does not contribute with a radical new meaning. Lettl (2007) is of the same opinion stressing that products developed through a user-centred approach have a low to medium radical innovativeness. Apple CEO Steve Jobs claims that “… it’s really hard to design products by focus groups. A lot of times, people don’t know what they want until they see them.” (Verganti 2009, p.51).

Designing radical innovation of meanings involve a market-push strategy. Customers are then offered products or services with a design that carries a meaning that they did not ask for, nor did they expect it to be developed. Consequently, the products are purposed (pushed) to the marketplace instead of
developed together with the market (market pull). Kanter (2011) and Garvin & Levesque (2006) build on to the theory of pull and push strategies of innovation; arguing that companies need to develop both incremental and radical innovations (pull and push innovations) in order to stay competitive in the long run.

The push strategy of innovation is not novel. Thousands of breakthroughs and new combinations have been pushed upon the market. What is interesting is the importance of new meanings and how you create a company vision and strategy that can foster meanings to be pushed upon the marketplace.

Lettl (2007, p. 67) describes how “… companies that work on radical innovations need to develop a completely different user involvement competence than companies that primarily generate incremental innovations”. That involvement could be what we earlier described as participation in the design discourse, in order to interact with possible interpreters of new meanings. Not trying to incrementally improve what already exists (user-centred) but to propose products such as Nintendo Wii and the Coldspot refrigerator [Figure 2].

2.8. Main theoretical findings

Throughout the theoretical framework we have discussed four factors, which have shown to be essential for the success of innovation of meanings. The factors are:

- Design discourse participation
- Vision
- Absorptive capacity
- Push strategy of innovation

These essential factors will be in focus in the empirical part, when reviewing two relevant cases.

3. Method

The empirical study aims to answer our third research question:

“How does the case study organizations work with design and interact with external sources in their innovation process?”

We wish to answer our research question by exploring how case companies work with the four essential factors (design discourse participation, vision, absorptive capacity, push strategy of innovation) that we have identified. The approach will also cover possible innovation of meanings seen within the cases.

The multiple case study approach was used to cover the complex phenomena within innovation of meanings. It was also used to give the study rich empirical descriptions of the four essential factors (Eisenhardt & Graebner 2007). The deep insight was gained by investigating the phenomenon of innovation of meanings in its real-life context (Flyvberg 2006; Yin 2003). Some of the advantages that we gained from this approach were a high conceptual validity and the ability to address the casual complexity of the theory (George & Bennett 2005).

We searched for cases that could extend our theory, replicate cases we had studied and complement our theoretical findings. This
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method of using theories form emerging data when selecting a sample is known as theoretical sampling (Eisenhardt 1989; Marshall 1996). The sampling was made by using both preliminary theory as well as judgement of the researchers. Firstly, we interviewed the head of the Industrial Design programme at Jönköping School of Engineering (JTH); Professor Lars Eriksson, to gather information about how firms were working together with the school and its design students when seeking for novel design ideas. Secondly, we chose to contact two firms described by Professor Eriksson. The interviewees were Anders Hjalmarsson (CEO at Inwido AB) and Jan Bjärnhag (Head of design at Tylö AB).

These companies reflected characteristics and problems that we previously had identified in our theoretical framework and were, according to Professor Eriksson, both interested in developing new values and a possible competitive advantage. They were finally selected because of their possibility to reveal unique insights and valid information, a selection that we could not do with a random sample (Flyvberg 2006).

The two case studies came to a large extent to emphasize on the firms’ interaction with external sources and their relationship with universities. Our research design was therefore developed to investigate both sides (firms and university) perception of the interaction, in order to grasp the whole picture (Yin 2003). The interview with Professor Eriksson served as a verification tool towards the two case studies where he, as a possible interpreter, gave valuable information about the organizational relationship.

Our qualitative analysis consisted of three activities: data reduction, data display and conclusion drawing/verification (Miles & Huberman 1994), activities that were all successively introduced and used interchangeably in our analysis. The two investigators’ individual summaries was first merged into a single document and thereafter summarized into structured text and a table for good data display. The text serves as ‘case stories’, presenting the most relevant interview findings and the table categorize and highlight their significance towards our four success factors.

The final analysis and conclusion was made after all data had been collected, this to make sure that they were all analysed with a similar mind-set and to avoid any premature conclusions. We then worked as multiple investigators (Eisenhardt 1989), complementing each other by adding richness through different perspectives and interpretations throughout the study.

The findings from the case studies does not bare for generalization for the many. Instead the findings can be set in relation to other firms with a relevant fit (Merriam 1998); enabling similar cases where companies that strive towards adding new values and possibly change competitive advantages can benefit from this research. The case studies also gave insights on what to further investigate within the topic and in that way contribute to academia.

4. Empirical Findings

In this section we will take a closer look at how two Swedish companies work with design and innovation. This information will then be analyzed to see whether there is any correlation between the company’s ways of working in relation to the findings that we have gained from the theoretical framework regarding the four factors: 1) design discourse participation, 2) vision, 3) absorptive capacity, and 4) push strategy of innovation. The managers’ perception on the relationship between design and innovation will be investigated to see how or if their way of working may guide them
towards innovation of new meanings. All of this to answer our third research question.

We will now present the findings from Professor Eriksson and our two case companies who have co-operated with students at the industrial design program and see their attempts to create new value.

4.1. Something more than just a door

When opening a door, few people think of the product they just used. Is it possible to create a new meaning of a product as traditional as a door? Anders Hjalmarsson, CEO at door manufacturer Inwido AB, turned to JTH and its design students for input since they had “run out of patterns” for their doors and wanted new insights. The co-operation resulted in several new interpretations of what a door really could be.

When speaking about innovation of meanings with Hjalmarsson, he argues that; “An innovation is an extremity which you cannot expect to achieve”. Instead he claims that they look for novel combinations that can generate new value to their customers and possibly change the market. He also raise the question; “How are people going to live in the future?” and describe a vision of designing a door that can be more than something you simply open and close. This is close to Verganti (2009, p. 220) who argue that top executives need to ask themselves; “What is the deepest reason people will buy our products?” and “What meaning could they be looking for?”

Design is according to Hjalmarsson a part of the innovation process, on the other hand he argue that design does not always play a key role in their innovation work. However, at some point you need new input to the process, which is why Inwido turned to JTH and its industrial design students for input on novel door designs. Hjalmarsson stress the fact that, students do not only think of the technical data or utilitarian function that is required for a door. They think outside of the box and have the ability to come up with new values for customers that one within the industry would have a hard time seeing. On the other hand, students are the one source described by Hjalmarsson for external input of novel idea generation at Inwido. Professional designers and architects are usually hired to solve or provide specific solutions to existing products. Thus, incremental improvements is more their focus than new meanings of a traditional product as a door.

The ideas constructed by the design students at JTH have not generated ready to use solutions. Inwido have instead been able to pick out the good parts from the students ideas in order to further develop them into usage. With all the student input Inwido gained several interpretations of what a door could mean. According to Hjalmarsson their product can be more than a door, it could be an entrance concept that you can do a lot with. That is if you gain meaningful interpretations and have the ability to understand and transform the interpretations into reality. This is something that Hjalmarsson find difficult, due to lacking knowledge and the strong focus of resources targeting market pull improvements.

4.2. The sauna for your senses

Tylö AB has the vision to be the world’s preferred choice for premium sauna and steam bathing solutions. Their head of product development and design Jan Bjärnhag describes how Tylö, historically speaking, always been good at breaking barriers. But change comes slowly; even if design together with financials is of highest priority and top management got a ‘just go for it’ approach towards new design projects.

Bjärnhag describes that Tylös’ main mission is to change the perception that many people have of a sauna today, and make the new sauna experience known to the broad mass of people.
Tylö have lead the transformation of saunas from being a dark room in your cellar where tough men drink beer and sweat, into a spa experience in your own bathroom where the whole family can relax. Health, beauty and wellness are what Tylö wish to communicate with saunas, especially to women. To succeed with that, Tylö has continuously developed their product towards the new bathing experience. Natural fragrance oils that can stimulate your senses have been developed and saunas have been scaled and designed to fit into the bathroom instead of the basement. In addition something called ‘soft sauna’ have been developed, which refers to a heater with properties of a steam sauna. This allows you to enjoy bathing at a lower temperature but with a much higher humidity, resulting in a more relaxing bathing sensation than the in ordinary saunas.

Tylö is constantly looking for new improvements to satisfy their customers’ requirements and to keep competitors at bay. Tylö has an on-going interaction with external sources such as, students, architects and consultants to come up with new product designs. In this collaboration Bjärnhag primarily values novel ideas of materials, concepts, design and functions that those who are unknowledgeable about saunas sometimes discover. An example of this is when American exchange students developed a ‘shower channel’ that implicitly made you taking a shower (as you should) before entering the sauna. Something that is obvious to used bathers, but not known to the inexperienced ones. This idea has been incorporated in new product series at Tylö.

Bjärnhag thinks that the suppliers also have an important role towards their customers and he likes to tell them that “… you should be innovative towards us … we are open for suggestions”. Despite that, most new ideas seem to come from informal meetings, inspirations from exhibitions and other industries. These ideas are then presented and processed in a product council consisting of people with different knowledge and positions. At the same time he explains how ‘bread & butter’ development often go ahead in priority.

Bjärnhag further describe how he believes that Tylö need to be better at taking advantage of all the ideas that are flowing within the company and its surroundings. “We need to ask ourselves: how can we use this idea and what could be the consequences of it?” This is a memorable quote that will be further elaborated upon in the analysis and discussion part.

4.3. JTH as a possible source for interpreters

Lars Eriksson is professor in industrial design, head of the industrial design program at JTH and has experience from several years of co-operation between universities and companies.

Due to his experience in the field we wished to gain his insights on the external input that JTH and its students can give to companies such as Tylö and Inwido. We wanted to see how a potential interpreter looks upon the cooperation and through that viewpoint help to elaborate the analysis.

Eriksson described how they like to help companies who can offer the program and its students something back in terms of real life cases and useful experiences. Some firms get it wrong when they go to the industrial design program looking for cheap labor, and are therefore forwarded to design consultants. The cooperation may be seen in several forms. Many students do their thesis towards host companies whilst other companies, who have continuous contact with the school, gain input and ideas from students through projects. Projects are shifting and the school has been involved in developing market push products as well as market pull products. However there is no focus towards one or another. It all depends on the specific project and how it can help the
school and its students to further develop their skills.

When discussing methods of obtaining design ideas that may generate new innovation of meanings, Eriksson claim that; “The solution does not exist in the methods, it is found in the interest from its clients”. Further Eriksson explains how methods are worthless if there is no understanding for the outcome and what it possibly could mean. The methods used do not promise anything, they are just a source of inspiration that the companies later have to absorb and further develop. Eriksson emphasize on the importance of how products are perceived and the understanding of what and how ideas can be used. In addition he makes a comparison of designing novel product concepts to humor. The unexpected is the fun that will make your joke a success and people laughing; in design it is the unexpected that may breed for high sales and a future successful product. However, the hard part is to understand what the unexpected move could be, both in humor and in design.

One thing is however clear. The students are often easy to influence and you can direct their creativity by giving lectures or showing models of solutions. If one wishes a fresh mind to interpret new meanings, they have to be aware of how they interact with the students. Too much guidance can kill the potential of generating unexpected interpretations that the students carry in their inexperienced minds.

5. Analysis & Discussion

From the theoretical framework we gained information on how innovations of meanings are fostered. With the cases in mind we can now see how two organizations within traditional product segments are trying to work towards new values and competitive advantages. Table 1 below illustrates how the cases relate to the essential factors identified in the theory. The following text will analyze and discuss interesting points that we have come across in the case studies and the meeting with Professor Eriksson.

Both case companies have described an awareness of what new values can mean in terms of competitive advantage for their firms and industries. However, there is a difference in how the companies work towards new values and we will now see how it continuously ties back to the companies’ visions.

Inwido lacks a vision and strategy on how to develop the new values; something that Hjalmarrson describe as a matter in need for improvement. Products at Inwido are mainly developed with input from user perceptions (market pull) and incremental improvements allocate most of the resources. This is also an important part of the development process of a company in order to stay competitive, but it should not be of the cost of search for novel innovation of meanings (Kanter 2011; Garvin & Levesque 2006).

In the other case we see how the vision of Tylö and the ‘go for it’ mentality when it comes to design, makes a difference when innovating products and concepts of tomorrow. A good example of this is when Tylö transformed the sauna bathing perception by focusing on design. Going from the traditional ‘Finnish sauna bathing style’ to a home spa experience. The transformation added new values to the sauna bathing experience and all together it contributed to the development of a new meaning of the sauna.

Going back to the vision of Inwido, we can see from Table 1 how Hjalmarrson wants the door to be more than something you just open and close. He continues by describing how focus need to be set on how people are going to live their lives in the future. These are vision statements that support the work towards innovation of new meanings. However, the shared statements are important not only at top management level; it also needs to be
communicated and implemented throughout the whole organization in order to set direction and guide the innovation work. At the moment the vision statements are more of personal thoughts than they are widely known and spread vision statements within the company. Innovation has through our discussion proven to be of high importance to Inwido, however they focus on market pull innovation (improvements) and don’t see the full potential of design as an innovation tool of novel values.

We have analysed Tylös’ transformation of the classic sauna into a home spa and seen a series of actions, which has lead to what we consider a new meaning of the sauna. The changes include the development and design of a sauna for your bathroom, ‘soft sauna’ heaters and fragrance oils. These actions can be considered as new combinations, but have together changed the sauna bathing experience and targeted a new audience. The sauna is no longer just a place for men and beer cans; it have become a home spa where you can relax and take care of yourself and your family. Hence, a new meaning of sauna bathing was created; changing the industry and making Tylö target the women more than ever before.

This illustrates how combinations of different elements and a shift in context can generate an innovation of new meaning. The similarities between the transformation Tylös has given the sauna and the one that Sears and Raymond Loewy gave refrigerator are strong. Loewy redesigned the loud and ugly refrigerator of the early 1930’s into an interior design machine that everyone wanted in their kitchen. Both examples are cases where design has transformed something ‘ugly’ and functional into something desirable that carries a new meaning. This sauna transformation serves as a good example of how Tylös has pushed a new meaning upon the marketplace as a result of their vision and attitude towards design in their innovation work.

The external sources that are used by both case companies can be seen in Table 1 under the heading; design discourse participation. They both argue that their primary goal with the external source interaction is to generate novel ideas in order to create new values. Thus, what is interesting is how the case companies seek for new meanings and incremental improvements in separate processes, and not co-occurring, as suggested by Kanter (2011).

There are numerous examples of market pull improvements at both case companies, where customer experience, needs and desires are in focus of the development. We found how the focus is set on market pull innovations rather than on gaining new insight on novel interpretations, even though both firms stress the need to create new values. Both cases describe how incremental improvements of ‘bread and butter products’ are given far more focus due to insufficient time and resources. This is an issue that connects back to the importance of having an appropriate vision and strategy that are aware of how to search for novel ideas. With the focus set on market pull improvements of the ‘bread and butter products’, the companies interact with the external sources in a way that will not bring novel interpretations to the surface (see 2.7, push strategy of innovation). Hence, even though interpreters may be found within current relational assets, you cannot expect novel interpretations to effortlessly reveal themselves. The interaction has to support a constant search for novel interpretations concurrently as market pull improvements are being developed. Thus, if a firm go to an external source for input with the focus set at market pull improvement of a specific detail, they sure won’t hear about novel interpretations that can be transformed into new meanings.
**TABLE 1: FINDINGS FROM CASE INTERVIEWS**

<table>
<thead>
<tr>
<th></th>
<th><strong>INWIDO</strong></th>
<th><strong>TYLÖ</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VISION</strong></td>
<td>• Focusing on: “How are people going to live in the future?”</td>
<td>• Tylö has a clear vision of involving design in their innovation work, stating: “Tylö shall lead the development within design, quality, manufacturing and support” (<a href="http://www.tylko.se">www.tylko.se</a>).</td>
</tr>
<tr>
<td></td>
<td>• Hjalmarsson explains how Inwido want the door to be more than something that you just open and close.</td>
<td>• Words leading their work are quality, innovation and aesthetics.</td>
</tr>
<tr>
<td></td>
<td>• “Design can be a part of the innovation process but doesn’t necessarily have to be included in innovations”.</td>
<td>• Design is the most important parameter of the company next to financials.</td>
</tr>
<tr>
<td><strong>PUSH STRATEGY OF INNOVATION</strong></td>
<td>• Mainly incremental stance has been taken so far. The products have been developed due to customers experience and perceptions.</td>
<td>• Working towards new meanings by combining different elements and products into the sauna bathing experience.</td>
</tr>
<tr>
<td></td>
<td>• Hjalmarsson describe how they need to be better at suggesting new solutions to their customers in order to affect them.</td>
<td>• Tylö has worked to transform the sauna bathing experience from the traditional ‘Finnish style’ towards the home spa experience.</td>
</tr>
<tr>
<td></td>
<td>• The door industry is a traditional industry with little radical innovations.</td>
<td>• The industry is old fashioned with strong traditions and there is a potential for change and improvements.</td>
</tr>
<tr>
<td><strong>DESIGN DISCOURSE PARTICIPATION</strong></td>
<td>• Inwido use R&amp;D labs, students, customers and end users to gain new ideas of their products.</td>
<td>• Tylö actively seek out for new ideas and encourage external input to their innovation process.</td>
</tr>
<tr>
<td></td>
<td>• Focus on gaining new insights in order to; “capture new values and change the market.”</td>
<td>• External sources in the design discourse that Tylö is interacting with are: suppliers, consultants, benchmarking from other industries, cooperation with other industries and students. All are used in order to find novel ideas (interpretations).</td>
</tr>
<tr>
<td></td>
<td>• Hjalmarsson describe how students serve as future need forecasters and think more of new values for the users, opposed to the consultants who has a certain project where they need to consider technical requirements which the product has to meet.</td>
<td>• Björnhag tell their suppliers that: “… you should be innovative towards us … we are open for suggestions.”</td>
</tr>
<tr>
<td><strong>ABSORPTIVE CAPACITY</strong></td>
<td>• Hjalmarsson describe how it is hard to create an organization that is aiming at going beyond what is already known.</td>
<td>• They often see possible new combinations and gain ideas from external sources that they later find hard to capitalize on.</td>
</tr>
<tr>
<td></td>
<td>• He also stresses the need to be better at developing and capturing new ideas.</td>
<td>• Björnhag says: “We need to ask ourselves: How could we use this idea and what could be the consequences of it?”</td>
</tr>
</tbody>
</table>
Creating relationships with external sources and to be a part of the design discourse does not seem to be the complex part when working towards innovation of new meanings for either Inwido or Tylö. However, participation is, as we have seen, not enough. The complexity lies in discovering and understanding the interpreters within the design discourse in order to later capitalize on the relational assets. The case companies have expressed difficulties within this area; something we believe is due to the fact that the processes of novel idea generation (interpretations) and the process of incremental improvements interfere with each other. Focus on just one of the approaches is limiting the potential for novel interpretations to be discovered. Screening for novel interpretations could be done simultaneously as incremental improvements are being developed, but it requires a vision that support this way of working.

With the previous information in mind, we wish to refer back to Professor Eriksson who argued that students as external sources of idea generation is easy to influence and direct when in their phase of idea generation. We therefore raise the question whether the same issue is true regarding other external sources (possible interpreters). If so is the case, there has to be further research on the way of interacting in the design discourse. How can a company take contact and interact with external sources without influencing the creative minds of their possible interpreters? An influenced mind could be blocked to express its possible interpretation and novel ideas could be missed due to faulty interaction by the firm.

Tylö has created a culture where employees are encouraged to take action and seek out new solutions. Bjärnhag describe how; “It’s a go for it mentality when it comes to exciting design or innovation projects.” and continues by explaining how; “We need to ask ourselves: How could we use this idea and what could be the consequences of it?” This is a perfect example of how a company should think in order to get the most out of its external sources. At the same time Bjärnhag describe this as the hardest part to succeed with and argue that they often gain ideas from external sources that they later find hard to capitalize on. Hjalmarsson are in line with Bjärnhag and stress that it is difficult to create an organization that not only aims at going beyond what is already known, but that also take it into action and execute it. This is an issue that can be referred to as a lack in absorptive capacity and a vision that either lack awareness among the employees or innovation of meaning content. Hence, we see how Tylö with a well-developed vision, involving design and new values, still has troubles when it comes to the absorptive capacity.

Professor Eriksson stress the fact that companies often think that universities and their students are going to generate great ideas for them, regardless of the effort that is put into the interaction by the company itself. Building on to that, he made an explicit contribution to the issue of idea generation by describing how: “The solution does not exist in the methods, it is found in the interest from its clients.” This interest can be seen as the firms’ interest in terms of vision and absorptive capacity. Hence, it does not matter what method you use if there is no vision and absorptive capacity to capitalize on the outcome from the method.

At last we wish to raise the issue of how important it is to continuously interact with external sources. It is easy to interact with external sources in a project from time to time and blame the missing results on the external source that ‘doesn’t get the picture’. An interaction on regular basis is harder to establish, though it is more likely to breed for novel interpretations.

In the cases we reviewed, Tylö has achieved a more ongoing interaction compared to
Inwido. This is reflecting the visions of the two companies fairly well. Tylö has come far with their vision on design and innovation and have established ongoing interaction with external sources, i.e. JTH. Inwido on the other hand still need the words of Hjalmarsson to become a well understood and spread vision throughout the company, something that would increase the possibility of novel interpretations to be discovered. Nevertheless, the vision has to be further developed in both cases to highlight the need for a co-occurring search for novel interpretations and market pull innovations. The vision also needs to aim at developing the absorptive capacity further in order to understand and be able to capitalize on future interpretations.

6. Concluding Remarks & Further Research

The growing attention to design management has resulted in various wording and definitions from numerous scholars. Clear is that design has the ability to give products an emotional and symbolic value, something that may result in a new product meaning. This innovation of a new meaning is very different from the user-centred design approach where user needs are being scrutinized in order to satisfy the market pull.

“A lot of times, people don’t know what they want until they see them.”
- Steve Jobs

Companies that instead manage to envision people’s future context of life can design new products and propose them to their customers in a market push. A product designed to give a new meaning have the potential to find uncontested market space and satisfy previously undiscovered needs.

Only great products grow in meaning over their lifetimes, something that will not be achieved by focusing on product functionality and a low price, but through an eminent design that creates a meaning to its customer.

A conclusion to be drawn from our theoretical framework is that innovations of new meanings not are likely to occur unless design pervades the whole organization. Top executives don’t only have to approve on design work, they have to become part of it and create a vision that assures everyone of doing so. Participating in the design discourse is a part of this work, an essential part where interaction with possible interpreters from external sources (suppliers, students, lead-users, consultants etc.) may result in valuable insights. Interpreters are experts within their field and have the ability to envision people’s future context of life.

“… it is hard to find marketplace insights for markets that don’t exist.”
- Garvin & Levesque

Interpreters and lead-users are relational assets serving as ‘need forecasters’, needs that they recognize before the mainstream users and even before companies. The challenges for company’s lies in developing a vision that supports innovation of new meanings and in finding people with novel interpretations. This requires a continuous participation in the design discourse and an absorptive capacity of the firm where novel interpretations are recognized and captivated into the innovation process.

The article has identified four factors that can be set in relation to companies in order to investigate their stance towards innovation of new meanings. In the research we limited ourselves to focus on two case companies and gained supporting information from their mutual external source of input (JTH) in order to generate in depth information on the case companies innovation work. The study is therefore not general in its result and may differ across industries and settings. However, the
results presented can be set in relation to similar cases where companies strive towards adding new values and a change in competitive advantage.

This article has, through its empirical study, found that companies with sound visions and design collaborations still can struggle to capitalize on novel interpretations found in the design discourse. Reasons for this are still suggested to be further researched, but we here want to conclude our findings from the two case companies’ collaboration with universities.

It has shown from the cases, the interview with Professor Eriksson and from theory, that absorptive capacity is a highly important factor when trying to understand and capitalize on novel interpretations on future meanings. It is therefore of high interest to link the absorptive capacity to the context it is suggested to take place in, namely the design discourse. We therefore ask ourselves; how can you develop an absorptive capacity that best understands the ideas generated in the design discourse? We also wish to highlight the issue of how interaction with external sources should take form in order to not block possible interpretations from being revealed. This could be seen as an extension of the absorptive capacity field.

Students have proven to be a valuable source for ideas to new innovative projects, but we fear that companies miss out on their full potential when for example just using certain ideas, solutions and prototypes. Firms should instead invest resources in continuous interaction and in segregating student that possess the potential to interpret new meanings. Offering these possible interpreters to work with or aside the company thru internships, consulting, employment etc. could do this.

It is important to note that the company vision needs to embrace a co-occurring search of market pull improvements and novel interpretations. Without such approach, the relational assets and the company resources will not be used to its full potential.

It is also crucial to note that a supporting vision is the key for innovation of meanings. Without a supporting and well shared vision it is not likely that; participation in the design discourse, push strategy of innovation or the absorptive capacity will work in a way that will fully support innovation of new meanings. Thus, vision development is the key to the most amazing interpretations and possible innovation of new meanings.

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Method

1. Introduction

This paper will give an explanation of why and how we have decided to conduct our empirical study. The choice of method has clearly depended on the problem under study and its circumstances (Flyvberg 2006). We first give a description of the research approach and methods, explaining why it suits our objectives. The paper then continues to discuss sampling, data collection and present further argumentation of how the data analysis was performed. At last the validity and reliability of this particular thesis is discussed.

2. Research approach and methods

The empirical study was done to answer our third research question; “How does the case study organizations work with design and interact with external sources in their innovation process?” This question is preferably answered by taking a qualitative study approach, which best answers “how?” and “why?” research questions that are used in an exploratory purpose (Marshall 1996; Yin 2003). Further, Corbin and Strauss (2008, p. 12) argue that; “qualitative research allows researchers to get at the inner experience of participants, to determine how meanings are formed through and in culture, and to discover rather than test variables.” In addition, Merriam (1998) argue that qualitative research aims to understand the meaning people have constructed and how they experience their world. With the information in mind, we find a qualitative approach applicable to our study, which purpose is to gain understanding of the subject rather than to test the general validity of the information gathered (Holme & Solvang 1997).

The innovation of meaning process and the theory behind are complex phenomena depending on multiple variables where firms ability to capitalize upon relational assets is of highest priority. These assets take the form of novel design interpretations and can be found in the design discourse between external sources (suppliers, consultants, students, etc.) and the firm. We used a multiple case study methodology approach, which has the ability to cover such complexity. We wish to answer our research question by exploring how the case companies work with the four essential factors (design discourse participation, vision, absorptive capacity, push strategy of innovation) that we identified in our theoretical framework. The approach will also cover possible innovation of meanings seen within the cases. We claim that this approach could help us to further investigate the four essential factors from our theoretical framework.

The case studies were used to give us rich empirical descriptions of specific instances of a phenomenon that we had studied theoretically (Eisenhardt & Graebner 2007), and did so by letting us investigate the phenomenon of innovation of meanings in its real-life context (Flyvberg 2006; Yin 2003). Some of the advantages that we gained from this approach were a high conceptual validity and the ability to address the casual complexity of the theory (George and Bennett 2005). The method helped us to gain valid information on how companies work with innovation and design; information that would have been more difficult to discover with a statistical or more formal model. We also believe that the case study approach was suitable
in order to generate insight on what to further investigate within the topic and in that way contribute to academia.

3. Sampling

Marshall (1996, p.523) states that; “An appropriate sample size for a qualitative study is one that adequately answers the research question.”, a number that in practice usually becomes obvious as the study progresses. This requires a flexible research design with an; “...interactive, cyclical approach to sampling, data collection, analysis and interpretation.”

We searched for cases that could extend our theory, replicate cases we had studied and complement our theoretical findings. This method of using theories form emerging data when selecting a sample is known as theoretical sampling (Eisenhardt 1989; Marshall 1996). The theory of theoretical sampling overlap with another sample method is known as judgement- or purposeful sample. The researcher then uses its knowledge, available literature and the study itself to actively select the sample that is most likely to productively answer the research question (Marshall 1996). Our theoretical framework identified specific organizational attributes of firms likely to get in contact with new innovation of meanings. The sampling was therefore made by using both preliminary theory as well as judgement of the researchers who developed the following basic steps for selection of case studies:

- Firstly, we interviewed the head of the Industrial Design programme at Jönköping School of Engineering (JTH); Professor Lars Eriksson, to gather information about firms working together with the school and its design students.
- Secondly, we chose to contact two firms with seemingly polarized relationships to JTH in terms of collaboration history and to some extent reason for approaching them. The interviewees were Anders Hjalmarsson (CEO at Inwido AB) and Jan Bjärnhag (Head of design at Tylö AB).

These companies reflected characteristics and problems that we previously had identified in our theoretical framework and were, according to Professor Eriksson, both interested in developing new values and possibly create a new competitive advantage. They were finally selected because of their possibility to reveal unique insights and valid information, a selection you cannot do with a random sample (Flyvberg 2006).

The two case studies came to a large extent to emphasize on the firms’ interaction with external sources and their relationship with universities. The interview with Professor Eriksson at JTH therefore served as a supplement and confirmation tool towards the two firm case studies. Yin (2003) stress that research questions concerning organizational relationships only can be answered if you collect information from the other organizations, and not merely from the firm you started with. Our research design was therefore developed to investigate both sides (firms and university) perception of the interaction.

4. Data Collection

We have accumulated our primary data from interviews; a specialized form of communication conducted for a specific task related purpose (Downs et al. 1980). The interviews took the form of information-gathering interviews; the only interview where you can choose the expert
(Whetten and Cameron 2007). The choice of interviewee was based upon two factors; who can give you the information you need and who is willing to give you this information (Stano & Reinsch 1982). Whetten and Cameron (2007) have set up clear steps to follow when conducting interviews including: deciding on a general purpose and creating an agenda, developing questions, developing the structure of the interview, planning the setting and anticipating problems. These steps where followed thoroughly and in the interviews open questions were used for general information while closed questions, together with probing questions, were used for clarification and supplementation. This can be described as a semi-structured way of interviewing where there was an ongoing open discussion with certain prepared questions to be answered (Whetten & Cameron 2007).

Two of the interviews, with Professor Eriksson and Bjärnhag, were performed face-to-face and were very comprehensive (two hours each) whilst Hjalmarsson was interviewed over phone on two occasions. It was essential for us to find relevant firms and interviewees at top management level that was willing to take time and effort to provide us with valid information. The universities’ view on organizational collaboration was provided through interviews with professor and design program manager at JTH, Professor Eriksson.

When conducting our interviews we used the funnel questioning (Whetten & Cameron 2007), going from general questions regarding design and innovation work towards more specific questions covering our four main success factors for innovation of meanings. The interviewees where all very passionate when talking about the subject and it became important to narrow down the conversation towards the main factors by using probing questions. The two interviewers where taking similar roles: interchangeably taking notes and asking questions from the prepared interview guide.

The interviews resulted in generous information about the organizations perception of design as an innovation tool and their ways of interacting with other organizations. The data, in form of protocols, was summarized individually by the investigators immediately after each interview. Summarizing the findings is one of the first steps of the analysis and will therefore be discussed further in the next section.

5. Analysis

Analysing evidence is the least developed and most difficult aspect of performing case studies (Yin 2003). Miles and Huberman (1994) define qualitative analysis as consisting of three activities: data reduction, data display and conclusion drawing/verification, activities that were all successively introduced and used interchangeably in our analysis. The researchers realize that their anticipatory data reduction started already when they decided upon conceptual framework, research questions, cases etc. This on-going process is a part of the analysis where we reduce and transform the data through summaries, interpretation and so on; trying not to strip the data from the context in which it occur (Miles & Huberman 1994). The two investigators’ individual summaries was first merged into a single document, confirming the fact that different perspectives sometimes had been taken and that the notes complemented each other in many ways. The qualitative data was later summarized into structured text and a table for good data display; another form of analytic activity that incorporates data reduction.
The text serves as ‘case stories’, presenting the most relevant interview findings and the chart categorizes and highlights their significance towards our four essential factors. This data display was made to give the reader an understandable overview as well as to work as a tool for further analysis. Up to this point each case was handled individually, giving the investigators a rich familiarity with each case, allowing unique patterns to emerge before the investigators push to generalize and compare across cases (Eisenhardt 1989).

The final analysis activity included verification of data and conclusion drawing where an ongoing discussion between the investigators served as a tool to minimize biases. Miles and Huberman (1994) describe how a researcher from the start of data collection begins to decide what things mean, conclusions that should be held lightly, maintaining openness and scepticism. Conclusions may be verified when the analyst proceeds with writing, reviewing, discussions with colleagues, data interpretation etc. “The meanings emerging from the data have to be tested for their plausibility, their sturdiness, their “confirmability” - that is, their validity.” (Miles & Huberman 1994, p.11).

The final verification and conclusion was made after all data had been collected, this to make sure that all cases were analysed with a similar mind-set and to avoid any premature conclusions. We then used the various data displays (case stories and the chart) and compared them with our theoretical findings and interpretations to get divergent cross-case comparisons (Eisenhardt 1989). The interview with Professor Eriksson worked as a verification tool towards the two case studies where he, as an expert and possible interpreter, gave valuable information about the organizational relationship and his perception upon design and innovation.

We believe that the data reduction and conclusion drawing/verification profited from the fact that we are two team members; or multiple investigators as Eisenhardt (1989) also call it. Eisenhardt (1989) notes that the complementary insights from different team members can add to the richness of the data and their different perspectives increase the likelihood of capitalizing on novel insights from the findings. Further, can the multiple observations enhance the confidence in the findings since convergent perceptions add to the empirical grounding, whilst conflicting perceptions keep it from premature closure.

Our analytic strategy is very much in line with what Yin (2003) describes as relying on theoretical propositions. This is because we let our theoretical framework guide us through Miles and Hubermans’ (1994) three analysis activities, and since the case study itself has been formed by our theoretical findings, helping us to focus attention on certain data and to ignore other data. These essential factors from our theoretical findings are, as previously mentioned; design discourse participation, vision, absorptive capacity and push strategy of innovation.

We recognize that this somewhat strict focus could make us exclude findings that still are relevant to the topic as a whole. The data reduction is considered a necessary delimitation, refining data display and helping us to highlight and focus on the four essential factors of innovation of meanings.

6. Validity and reliability
We believe that the sampling and data collection methods described above provided us with interviewees who had the knowledge and authority to give us valid information. The way the interviews were constructed, with the funnel perspective, was chosen in order to support a stronger validity, but also a stronger reliability of the answers. With this approach, the respondents shared their frame of reference with a great deal of passion and did not hesitate to answer any questions or topics discussed. This gave us a broad picture of their perceptions of the topic and the probing questions generated in depth discussions of the factors identified from our theoretical framework.

The interviews were conducted in different forms, but preferably face-to-face in an environment chosen by the interviewee, where he was comfortable and perhaps used to having similar discussions (e.g. office or conference room.) Other factors that might have influence on the reliability is if the interviewee is stressed, can’t comment due to confidentiality etc., a broader picture that should be acknowledged by the researcher (Marshall 1996).

The data collection approach was chosen in order to lower the risk of biases. The interviewees and their companies are not anonymous in our study, something that may have resulted in participant biases where the interviewees adjust their answers to benefit their organization (Saunders et al. 2007). Social desirability bias is similarly explained as when the respondents gives themselves a favourable light and acquiescence bias where the respondent provides the answers that he thinks will satisfy the investigator (Gomm 2004). Saunders et al. (2007) refer to this as the ‘good news’ syndrome, that especially applies to cases like ours where you interview top executives. One precaution to this reliability issue is the supplementing interview with Professor Eriksson that works as verification tool of the organizational relationship that is being researched (Yin 2003). Saunders et al. (2003) stress that observer error and/or bias can be a treat to reliability if not considered carefully. We hope to have minimized this treat by applying multiple investigators with different ways of asking questions and interpreting replies (Eisenhardt 1989; Merriam 1998; Saunders et al. 2003).

The theoretical framework has identified four essential factors that can be set in relation companies in order to investigate their stance towards innovation of new meanings. In this research we limited ourselves to focus on two case companies and gained supporting information from their mutual external source of input (JTH). This approach was taken in order to generate in depth information on the case companies innovation work and not to find out what is generally true of the many (Merriam 1998). Flyvberg (2006) encourage this approach, saying that generalisation of case studies is not always useful but instead could be counterproductive since it hinders the development of a characterized theory. The external validity is therefore not general in its result. However, due to the detailed description of the studies context, can the results be set in relation to other firms with a relevant fit (Merriam 1998); enabling similar cases where companies that strive towards adding new values and possibly change competitive advantages can benefit from this research.

7. Critique of method

It will always be hard to ensure the validity and the reliability of qualitative studies. Nevertheless, we were aware of the difficulties and possible biases that could occur and
therefore designed the data collection carefully to avoid biases and support reliable data. When analysing, we had to ignore a lot of data that had been discussed in the interviews. This could lead to missing parts that could have been of value for the study. However we believe that we used an appropriate path suggested by Miles & Huberman (1994) for analysing, which aimed at focusing on the essential data for our study and reduction of other data. In addition we were two researchers and our separate interpretations of the data were merged into a whole, bearing for a stronger validity of the findings.

The study could have been larger in order to gain a better external validity of the findings. However we choose to focus on two cases with the common aim towards adding new values in order to possibly change competitive advantage. Hence, the findings from these cases are therefore considered to be applicable on other firms with a similar aim. The contribution is therefore targeted towards those organizations and not to any organization.

References


Journal of choice

Wiley-Blackwell – R&D Management
Edited by: Jeff Butler and Jeremy Howells
Print ISSN: 0033-6807
Online ISSN: 1467-9310
Frequency: Five times a year
Current Volume: 40 / 2010
ISI Journal Citation Reports® Ranking: 2009: Business: 61 / 87; Management: 65 / 112
Impact Factor: 0.928
Article length: Not exceed 5,000 words

Author guidelines: “Preference will be given to papers which advance the state of the art in research, development, design and innovation management. They should address current or anticipated problems and issues, and implications for managers, R&D teams and organizations. The application of new methods and concepts is especially relevant. Research papers and high quality practitioner perspective papers are published.” (R&D Management 2011)

Aims and scope: “R&D Management publishes articles which address the interests of both practicing managers and academic researchers in R&D and innovation management. Covering the full range of topics in research, development, design and innovation, and related strategic and human resource issues - from exploratory science to commercial exploitation - articles also examine social, economic and environmental implications. In addition, the journal publishes notes and comments, and reviews of new publications in the field.” (R&D Management 2011)

Suitability of journal

Our paper aims at describing and exploring a rather new concept of innovation through design, explicitly; innovation of meanings. The theory is to a large extent based upon organizations’ attitude and vision towards design and their managerial behavior to handle innovations. Focus is set on the use of external resources to innovate new meanings and then especially on how firms can collaborate with universities to do so.

We believe that the R&D Management journal is a suitable journal of choice since it emphasizes upon design and innovation management and implications for managers within these subjects. The journal has also previously been subject to research within our field of interest (Albors & Hildago 2008; Dell’Era & Verganti 2009; Grimpe &Sofka 2010; Verganti 2008)

The scientific impact of the R&D Management journal is measured in citation reports and impact factor. A journals impact factor, which is one way of measuring how a journal receives citations to its articles over time (Amin & Mabe 2000), is unrelated to its scientific quality (Seglen 1997) and have been of little or none importance when deciding on a journal. Linton and Narongsak (2004) have in their comprehensive study ranked numerous journals, placing
R&D Management in the top ten within both ‘management of technology’ and ‘technology innovation management’, where they are considered from traditional management disciplines.

The goal with our research is to make an academic contribution to the field of innovation management and in particular to the field of innovation of new meanings. The article highlight four factors identified from the theoretical framework. The factors can be used on cases in order to study their stance towards innovation of meanings through design. The findings of the study can due to the detailed description of the studies context, be set in relation to other firms with a relevant fit (Merriam 1998); enabling similar cases where companies strive towards adding new values and changing competitive advantages to benefit from this research. The study also generates insight on what to further investigate within the topic and in that way contribute to academia in the field. The strong focus on design within our paper makes it relevant as a ‘design and innovation management’ article, something that the R&D Management journal welcomes by stating that: “Preference will be given to papers which advance the state of the art in research, development, design and innovation management.”

**Strategy for article submission**

We will still submit our article, hoping that our contribution is adequate for the requirements, and if not, continue to apply to other suitable journals within the field.

Our tutor Professor Friederike Welter will help us to make final adjustments and improvements in order to get the article ready for submission. The Master thesis article is too extensive for submission (closer to 10 000 words) and will have to become shorter and more precise to suit the journal of choice.

**References**


Seglen, P.O. 1997, ‘Why the impact factor of journals should not be used for evaluating research’, *British Medical Journal*, vol. 314, no. 7079.


**World Wide Web**
Additional list of references

This literature list includes readings that have been considered for, but not included in, our theoretical framework. The specific research of the subject ‘Designing Innovation of Meanings’ origins from the work of Roberto Verganti and his book; Design-Driven Innovation (2009). There is an extraordinary amount of publications within the different fields of innovation and design. Nevertheless, is designing innovation of new meanings a relatively novel field of research and key publications are therefore partly limited to the work of scholars cited in our article. In order to gain an understanding for the subject as a whole have we immersed ourselves in publications that contributed to the considered ‘key publications’. By this approach we believe that we covered the core literature, relevant to our article. In addition we tried to go beyond the core and approached theory that according to us contributed to our article and the development of our four essential factors for innovation of meanings.

The search for relevant theory has resulted in a broad understanding of the managerial field of design and innovation; knowledge that has been of great value when investigating and further analysing the findings from our empirical research. We now wish to categorize the additional publications that we didn’t consider contributing or applying as explicit as the publications included in the article. These publications are considered as additional recommended readings to our article.

Managing innovation


External sources in innovation work


The importance of design


**Organizational relationships**


