



LUND UNIVERSITY
School of Economics and Management

A Study of Entrepreneurial Teams in University Spin-offs

Author: Birgir Hákon Hafstein

Email: birgirhafstein@hotmail.com

Supervisor: Tomas Karlsson

Department of Business Administration, Lund University

May 30, 2011

Table of Contents

| | |
|---|----|
| 1. Introduction | 3 |
| 2. Literature Review | 4 |
| 3. Method & Data | 6 |
| 4. Analysis | 6 |
| 4.1. Team Description | 7 |
| 4.1.1. The Entrepreneurial Team | 7 |
| 4.1.2. The Research Team | 7 |
| 4.1.3. The Board of Directors | 8 |
| 4.2. The Business Idea | 8 |
| 4.3. The Team Formation | 9 |
| 4.3.1. The Research Team | 9 |
| 4.3.2. The Entrepreneurial Team | 9 |
| 4.3.3. The Board of Directors | 10 |
| 4.4. Social Interactions Within Teams | 11 |
| 4.5. Friendship Within Teams | 13 |
| 4.6. Team Composition | 13 |
| 4.7. Team Evolvment | 14 |
| 5. Conclusions | 15 |
| 6. References | 17 |

1. Introduction

“Coming together is a beginning. Keeping together is a progress. Working together is success” (Henry Ford, n.d.). This quote from Henry Ford is especially appropriate as the introduction to this paper on entrepreneurial teams in university spin-offs, since it describes the different phases in new venture formation.

The topic of team entrepreneurship as a research area is in some ways a quite recent one. Since the late seventies a lot of articles focused on small firms and the myth of the entrepreneur as a lone hero prevailed. It was not until the nineties that the attention turned towards the entrepreneurial team and since then, a considerable amount of research has accumulated (Cooney, 2005). A lot of the research examines the different factors of team entrepreneurship that contribute to new venture performance. However, the contributing factors of team performance have also received some attention. The main research themes in team entrepreneurship include social interaction, friendship and team composition, to name a few.

Using a self-observation method in an autoethnography style, this paper is a study on entrepreneurial teams based on personal experience. It relates my personal learning outcomes from the master’s program in entrepreneurship at Lund University to the main theories from the field of team entrepreneurship.

The main conclusion is that it will always be problematic to construct teams in a one-year master’s program in entrepreneurship due to a tight timeline. The interpersonal ties between students are generally weak, not to mention the ties between students and researchers in the case of an external idea. This can lead to a bad quality social interaction and a lack of friendship that results in poor team collaboration and eventually poor venture performance. It is also difficult for entrepreneurship students to evaluate researchers and their ideas in the beginning as it is for the researchers to evaluate the students and give them access to their research and the freedom to work on the project.

The remainder of the paper is organized as follows. Section 2 briefly reviews previous literature. In section 3 the methodology is described and a better picture given of the data employed in the study. Section 4 presents and analyzes my personal learning outcomes and relates them to theory. Section 5 concludes.

2. Literature Review

Following is a review of some of the main articles in entrepreneurship research, focusing on team entrepreneurship. As previously mentioned the main themes are social interaction, friendship and team composition, with a focus on the contributing factors of team and new venture performance.

Lechler (2001) examines the concept of social interaction within entrepreneurial teams and its effect on the venture success. In order to measure social interaction, he uses the following six components: communication, cohesion, work norms, mutual support, coordination and the balance of member contribution. Based on his model the hypothesis is that “*The quality of the social interaction within entrepreneurial teams is positively linked to venture success*” (pp. 269). This means that a higher value of each of the social interaction components above should lead to better venture performance. The results of the article underpin this statement and therefore suggest that the quality of the social interaction within entrepreneurial teams is vital for the success of the new venture.

A related topic was examined by Francis and Sandberg (2000) where they look at friendship within entrepreneurial teams and its relation to team and venture performance. They state that a better understanding of the dynamics of friendship within teams could lead to better knowledge of the effects it has on both team and venture success. First the authors lay a foundation for the existence of friendship within entrepreneurial teams and based on that they introduce 13 propositions covering relationships between friendship, team formation and team and venture performance. Their propositions on the venture performance suggest that higher levels of friendship during the formation of the team and its “functioning” phase are positively related to the future performance of the venture. Also, ventures going through tough times are more likely to get back on track if high levels of friendship are present.

Another theme in the field of team entrepreneurship is the composition of the team. Ancona and Caldwell (1992) study the effect of group demography on team performance using 45 new product teams. They split the team composition into tenure diversity and functional diversity and conclude that each of them has its own unique effect. They found that greater functional diversity led to more communication with

groups outside the team, for example in marketing, manufacturing and top management. Tenure diversity, on the other hand, had more impact on internal group dynamics, improving task work, setting group goals and prioritizing. However, the research revealed that the overall effect of team diversity is negative. The reasons brought up in the article suggest that diversity could impede implementation due to less teamwork capability compared to homogeneous teams. Therefore it might not benefit the team and enhance its performance to increase the diversity within the group. A team should rather find ways to utilize the positive and minimize the negative effects of diversity.

Ruef et al. (2003) also study team composition but they look at the effect of the characteristics of the entrepreneurs on team composition. The characteristics are divided into achieved and ascribed characteristics. They employ five concepts that might influence team membership, including homophily, status expectations, functionality and ecological and network constraints. The results indicate that homophily has a large impact on group composition, especially with regards to gender, ethnicity and occupation. The effects of network and ecological constraints were mixed. For example there was a considerable influence of strong ties such as family ties on team composition while weak ties had no statistically significant effect at all. There was no statistical support for the remaining mechanisms of functionality and status expectations.

The phase following team composition is the team evolution during the early stage of a venture. Clarysse and Moray (2004) examined this process in the case of research-based spin-offs, particularly the development of managerial and business capacity. Due to the emphasis that venture capital funds put on business experience, many research-based spin-offs hire external CEOs to secure funding. According to the article this CEO tends to leave soon after his arrival, mainly due to two factors. First, he lacks understanding of the technology and is incapable of developing the business by himself and second, the entrepreneurial team is not ready to accept an external CEO. Therefore the authors suggest to rather “coach” the entrepreneurial team, giving them the opportunity to acquire the managerial skills necessary and find respective roles in an independent venture.

3. Method & Data

The method employed in this paper is a self-observation method, written in an autoethnographic style. Autoethnography is a writing practice where the author employs personal experience in his research. The self is put in social context and the personal is connected to the cultural. Autoethnographic work is generally written in first person, using for example dialogue and emotion (Holt, 2003). Therefore, the text in this essay describes my own experience of being a part of an entrepreneurial team in a university spin-off. Throughout the paper, the personal learning outcomes that touch on the topic of the team are examined and evaluated. Furthermore, they are related to entrepreneurial theory on team entrepreneurship

The data is primarily observational data, recorded throughout the master's program in entrepreneurship and spans approximately eight months, from September 2010 – May 2011. This data, or learning outcomes, is mainly based on 19 weekly learning journals that I wrote during the studies, starting on December 3rd 2010 and ending on April 29th 2011. These journals describe the development of my entrepreneurial project, from personal as well as a theoretical perspective. A collection of academic articles relating to team entrepreneurship is also used, as well as additional data including email communications, advice from mentors etc.

4. Analysis

As previously mentioned, this paper is based on my personal experience of being a part of an entrepreneurial team in a university spin-off. In addition to the entrepreneurial team this study involves a research team, as well as the Lund University Technology Transfer Office, LU innovation, that connected the two teams. This chapter will present my personal learning outcomes during the master's program and relate them to the relevant theory on team entrepreneurship.

4.1. Team Description

Descriptions of the different team members are based on the project business plan (Hafstein, Karsten & Mullett, 2011). The Entrepreneurial team consists of three students from the master's program in entrepreneurship at Lund University while the research team is comprised of a student and a teacher from the Department of Design Sciences, Lund University.

4.1.1. The Entrepreneurial Team

Entrepreneur One and the only female of the team is a 25-year-old German native. She has a Bachelor Degree in Technical Business Administration and Logistics as well as a certificate as a banking professional due to six years of working experience in an international bank in Germany. She was raised in a business family that now owns two furniture stores and a carpentry. In addition, she has start-up experience in both the logistics and the furniture sectors.

Entrepreneur Two is a 25-year-old journalist from Australia who lived for the last five years in Belgium, Germany, Lithuania and now Sweden. He has a Bachelor degree in Communications with majors in Advertising and Journalism. He has start-up experience from the tourism sector in Lithuania as well as the online media sector.

Entrepreneur Three is a 28-year-old economist from Iceland. He has a Master in Economics and a two-year working experience in the asset management sector. Before his economist career he studied carpentry, followed by two years of work in the woodworking sector. He has start-up experience from the design industry.

4.1.2. The Research Team

Researcher One is a 42-year-old designer from Germany. He has 18 years experience in designing consumer products for major brands and seven years experience in design education at university level in Sweden. Currently he is conducting research and teaching at the Department of Design Sciences, Lund University. In addition, he has been running a design consultancy with various partners for 11 years in the UK and Germany.

Researcher Two is a 24-year-old design engineer from Sweden. He has a Master's Degree in Mechanical Engineering. Furthermore he has been researching and creating computer based tools for generating bespoke products over the last two years.

4.1.3. The Board of Directors

Board Member One is a Swedish native and a mentor to Entrepreneur Three. He is currently active as chairman / member of a number of companies and consultants with a focus on mentoring and development of business. He was previously Global HR Director and Managing Director of Tetra Pak in Sweden.

Board Member Two is a Swedish native and a mentor to Entrepreneur One. He is currently a member of five boards and an advisor in industry matters to IKEA. He was previously Managing Director and group head of IKEA AB's industrial group Swedwood that he took from two employees to 14 000 employees in over 35 factories all over Eastern Europe.

Board Member Three is a representative for LU innovation. They provide the project with advice on business issues, legal issues and patents as well as financial help. Finally, Researcher One is the fourth board member.

4.2. The Business Idea

Along with others, the researchers wrote the paper "Complex Product Form Generation in Industrial Design: A Bookshelf Based on Voronoi Diagrams (Nordin et al., 2010). As the name of the article implies, it studies the use of complex forms in industrial design. It looks into functional, production and cost constraints and reflects on how the user interacts with these complex forms. In addition it examines the user experience of proprietary software intended to design a Voronoi bookshelf.

This research was the main motivation for the original business idea. Using their proprietary software, the researchers wanted to allow people to co-create their own unique items, such as tables and shelves, based on natural morphologies. The process would start by the customer using the software to design an item of its desire,

choosing the size, pattern, material etc. Then, while designing, the software calculates the structural stability of the product and generates an output that can be sent directly to computer driven machinery (CNC-machines). There, each individual piece is cut out automatically, then assembled manually and delivered ready-made to the end user.

4.3. The Team Formation

A venture team can be defined as “two or more individuals who jointly establish and actively participate in a business in which they have an equity (financial) interest” (Watson et al., 1995, pp. 394). So the first step in order to establish a team is to connect two or more individuals that fulfill these criteria. In this study there are two sub-teams connected by LU Innovation to form the actual team.

4.3.1. The Research Team

The two researchers were brought together by their interest in nature, more precisely, the mathematics behind patterns occurring in nature (natural morphologies) and the ways to incorporate them into consumer products like furniture.

In order to commercialize the idea, they contacted LU Innovation that connected them to the master’s program in entrepreneurship. From that program, a group of students would eventually be assigned to the idea, supposed to work on it as their final project. Ideally the idea should be transformed into a registered company before the end of the academic year.

4.3.2. The Entrepreneurial Team

The formation period of the entrepreneurial team took place in early October 2010. Before that, a group of students from the program had been working on the idea as an assignment for a course we attended at the time. One individual from that group was chosen to form a team of three students with interest in the project and complimentary attributes (Karsten, email, October 6th 2010).

At this point in time we had been in the master’s program for roughly a month so we had some interpersonal ties, although differently strong. Granovetter (1973)

defined the strength of ties as “a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding) and the reciprocal services which characterize the tie” (pp. 1361). Therefore, it is fair to say that most of the interpersonal ties were weak, i.e. we were “acquaintances”.

A meeting was held where a group of interested people met for a discussion and explained how they could contribute to the project. The same day the decision was made and due to circumstances it was mainly based on intuition, individual background and complementary competencies (Karsten, email, October 8th 2010).

It is my personal opinion that this process should be changed quite a bit in order to be as efficient as possible. The research projects from LU innovation should be introduced earlier and explained more thoroughly to all students in the program. Then, each student could decide what projects he or she is interested in and finds feasible and desirable. Finally, the team should be chosen in collaboration between the entrepreneurship program and the research team. By doing this one will maximize the probabilities of a competent team that is approved by the researchers and avoid a lot of problems such as conflict between students. This is in line with the study of Fitzsimmons and Douglas (2011) where they find that both perceived desirability and perceived feasibility are positively related to the entrepreneurial intentions of an individual.

4.3.3. The Board of Directors

In my opinion a board of directors (or some kind of an advisory board) is essential for a start-up and a crucial part of the overall team. It provides the venture and the individuals involved with a framework to use as a guide during the early phases. This is stressed in the book *Entrepreneurship* by Hisrich, Peters and Shepherd (2008, pp. 62). They mention that throughout the whole start-up process, an entrepreneur needs advice and counsel from individuals such as mentors or business associates. In addition the board members can usually offer their network and experience that together add legitimacy to the team.

Networks can be especially important when it comes to acquiring legitimacy. They can alleviate the “liability of newness”¹ that a start-up normally encounters by providing contacts, support and credibility to the entrepreneurs (Zimmerman & Zeitz, 2002). Due to the fact that all members of the entrepreneurial team were foreigners, this was especially important for us. Therefore we decided early on to try to get experienced, Swedish board members. In our case we managed to get our mentors aboard and they definitely added legitimacy to our team.

Their extensive experience and access to their network was invaluable and helped us on numerous occasions. For example one of the mentors got us in touch with the owner of a large design store in Lund that might have proved difficult without his network. The following is taken from a board meeting transcript that took place on the 25th of February 2011: “[Board Member One] knows the owner of Miljögården and could give us the contact, if we would like to display some of our products there” (Karsten, 2011. Board Meeting Transcript, Feb. 25).

On this note the collaboration with LU innovation and having a representative from them in our board also added legitimacy to the team. To mention that we are working with them as a part of Lund University helped us to get people’s attention as well as meetings with potential producers and programmers to name a few. An example of this can be taken from a journal entry from the 15th of April 2011 where it says: “On Monday we met with two guys (that Sven from LU innovation got us in contact with) that could serve as potential producers in the future” (Hafstein, 2011. Learning Journal, Apr. 15).

4.4. Social Interactions Within Teams

When looking at the social interaction within an entrepreneurial team, one examines communication, cohesion, work norms, mutual support, coordination and the balance of member contribution (Lechler, 2001). Within the entrepreneurial team these factors have in general been quite good and as time went by the interactions improved. This is apparent throughout the journal entries and it was also a conscious

¹ Stinchcombe (1965) coined the phrase “liability of newness.” He stated that “As a general rule, a higher proportion of new organizations fail than old” (pp. 148).

decision that the team would have the same goals to work towards in order to achieve positive development. This decision was made on a meeting with the mentor of Entrepreneur Two and documented in a learning journal on the 21st of January 2011: “We discussed the results from the meeting with the researchers (regarding the product categories) and decided that the three of us, as a group, had to have the same goals, [and] work on the business plan in that direction” (Hafstein, 2011. Learning Journal, Jan. 21).

This was not the case when it came to interactions between the entrepreneurial team and the research team. After a while we felt as we had a lack of communication and cohesion, very different work norms and little coordination. This is evident in the learning journals and as an example of cohesion and work norms a suitable topic is the choice of a product category. To put it simply, this is the decision of what to produce, when to produce it, out of which materials and for what market. The category choice was one of the first topics we dealt with and in a journal entry from the 3rd of December 2010 it says “This week we had a team meeting scheduled for November 30th, with the goal of choosing a product category for the project” (Hafstein, 2010. Learning Journal, Dec. 3). This was still unresolved almost two months later, since the two teams had almost completely opposite ideas. This is evident in a journal entry from the 14th of January 2011 where it says “We think that somehow we are back to square one regarding this product category issue, since they now propose many categories (adding lighting that was not discussed originally but they are doing research on at the moment) and many materials” (Hafstein, 2011. Learning Journal, Jan. 14).

These difficulties could go hand in hand with the results from Lechler (2001). He found that the majority of teams in his sample reached a high quality level of social interactions. This is due to the fact that almost all teams had strong ties (friends, family or former colleagues) predating the team formation. In neither the research team, the entrepreneurial team nor the combination of the two was this the case. Also, the main hypothesis in Lecher’s article was that “*The quality of the social interaction within entrepreneurial teams is positively linked to the venture success*” (pp. 272, italics in original). Therefore one can assume that the performance of the venture could have been better if the social interactions between the teams would have been of more quality.

4.5. Friendship Within Teams

Akin to social interactions is friendship within teams. This was the research topic of Francis and Sandberg (2000) and two of their propositions suggest that higher levels of friendship during the formation of the team and its “functioning” phase are positively related to the future performance of the venture. As previously mentioned the ties were weak during the formation period but grew within each team as time passed. Therefore the interpersonal ties within the teams were closer to strong ties during the “functioning” phase but unfortunately the ties between members of the two teams did not reach that level.

Another proposition from Francis and Sandberg (2000) was that “Higher levels of friendship within a venture team at the outset of a strategic decision will promote a more effective decision-making process, thus resulting in a higher quality decision, greater commitment to it, greater understanding of it, and greater affective acceptance of fellow team members and the team's processes” (pp. 14). It is fair to say that since the friendship between the entrepreneurial and research team did not reach high levels, it led to a lack of most of the above-mentioned factors. This is evident in the product category issue as well as other matters such as deciding on a name (Hafstein, 2011. Learning Journal, Feb. 25) and a logo. In a journal entry from April 1st 2011 it says “[Researcher One] did not like any of the logo suggestions, so he gave us some guidelines that the designer could work after so he is back to square one” (Hafstein, 2011. Learning Journal, Apr. 1).

4.6. Team Composition

The composition of teams has been a popular topic within the entrepreneurial research field. One article that relates well to our case is the one of Anacona and Caldwell (1992) where they study the effect of group demography on team performance. They split the composition into tenure diversity and functional diversity where the latter one is better suited for the purposes of this study. As previously mentioned their results suggest that greater functional diversity leads to more communication with external groups in marketing and manufacturing, to name a few. As our team is very heterogeneous, we possess great functional diversity and should therefore experience this effect. To some extent this has been the case since we have

been working and communicating with external groups such as environmental consultants (Hafstein, 2011. Learning Journal, Jan. 28), producers (Hafstein, 2011. Learning Journal, Apr. 15) and designers. As an example the following sentence is taken from a journal entry from the 17th of December 2010: “I also contacted a friend of mine who is a graphic designer in order to start the process of designing the visual appearance of the company” (Hafstein, 2010. Learning Journal, Dec. 17).

However, the article reveals that the overall effect of team diversity is negative, impeding implementation due to low teamwork capability. This is exactly what we experienced in the collaboration between the entrepreneurial and the research team. On numerous occasions has it happened that the two teams were not able to implement due to disagreement. A good example is the case of finding producers. Both teams wanted responsibility for this task and when we decided to work on it together it became unclear who should do what. So instead of working as a team we acted as two separate units, making no progress at all. This status was noted in a board meeting transcript from April 7th 2011: “Shapeyard is behind the schedule, because there are still no producers ready to produce for us, so the supply chain is still not complete” (Karsten, 2011. Board Meeting Transcript, Apr. 7).

When it comes to the influence of entrepreneur’s characteristics on team composition, the paper from Ruef et al. (2003) is a good source. The five influencing factors are homophily, status expectations, functionality and ecological and network constraints. The largest impact on group composition according to the article is due to homophily. For the entrepreneurial team, this did not have such a great effect on the team composition. As previously mentioned we only connected through weak ties and the choice of members had the aim of diversity. However, in the case of the research team this was definitely the case since they were brought together by their interest in nature and design.

4.7. Team Evolvment

Following the period of team composition is the phase of team evolvment during the early stage of a venture. According to Clarysse and Moray (2004), research-based spin-offs tend to hire external CEOs with business experience to secure funding. In our case the entrepreneurial team can in some sense be viewed as

this external entity, since our task was to use our experience to commercialize the work from the research team.

The problem with this conduct is the research team's acceptance of the external entity and the lack thereof is often the reason for its departure (Clarysse and Moray, 2004). We have sensed this on numerous occasions in our project, where we feel as the research team does not fully trust our decisions and wants to go in a different direction. The clearest example is the previously mentioned product category issue (Hafstein, 2011. Learning Journal, Jan. 14). Even though this is "normal" behavior it does cause friction between the two teams that might be hard to solve. To avoid this, Clarysse and Moray (2004) state that it might be better to train the research team to acquire the necessary management skills and keep the venture independent. This might however not be possible in all scenarios if the researchers don't have the time or will to bring their idea to market. In our case for example, Researcher One lives in Germany and is teaching industrial design at Lund University, leaving little time for start-up activities. Similarly, Researcher Two is starting his doctoral studies next autumn.

5. Conclusions

This paper has examined my personal experience of being a part of an entrepreneurial team in a university spin-off, during the master's program in entrepreneurship. In order to do this, a self-observation method in autoethnography style was used to study my learning outcomes and relate them to theory on team entrepreneurship.

The team formation process in a one-year master's program will always be a difficult issue due to the tight timeline. It is almost inevitable that most of the groups will have weak interpersonal ties when the team is established. In the case of an external research idea this is especially relevant since it would be almost impossible to have all students develop a relationship with all researchers. Therefore, the students base their decisions mainly on the idea and their first impression of the research team and both aspects can be very hard to evaluate.

During the start-up phases it is essential to get good advice and counsel from external parties with experience. For a new venture this could be the board of directors or some kind of an advisory board and for the entrepreneur a mentor is preferable. This will add legitimacy to the team, through networks and experience, and can alleviate the “liability of newness.”

A quality social interaction between team members is very important, including communication, cohesion and work norms to name a few. This links back to the problem of weak ties during team formation because strong ties tend to lead to a high quality level of social interaction (Lechler, 2001).

A related and equally important issue is the friendship within teams. There is a positive relationship between future venture performance and higher levels of friendship during the formation of the team and its “functioning” phase (Francis and Sandberg, 2000). Future friendship is extremely hard to predict and therefore the tight timeline problem applies here as well.

The effect of heterogeneous teams is ambiguous. The positive is that the team possesses different and complimentary skills and according to Anacona and Caldwell (1992) heterogeneity leads to more communication with external groups. However, the overall effect is negative and impedes implementation.

The last topic is the team evolvement. The main issue there was the acceptance from the researchers of the external entity, in this case the entrepreneurial team. It is hard to let complete strangers into your research and give them the freedom of commercializing your idea in their way. Clarysse and Moray (2004) tackled this issue and concluded that maybe it is better to train the research team so they learn how to manage the business on their own.

In general, academic research in the area of team entrepreneurship is lacking. It was especially pronounced how little has been written about team size and it’s effect on team collaboration and venture performance. Also, the phenomenon of connecting a team of entrepreneurship students to a team of researchers seems to be mostly unexplored. So, it is clearly enough to choose from when it comes to studying team entrepreneurship and future research will hopefully shed more light on this important issue.

6. References

Articles:

- Ancona, Deborah G. and Caldwell, David F., (1992). "Demography and Design: Predictors of New Product Team Performance." *Organization Science*, Vol. 3, No. 3, pp. 321-341.
- Clarysse, Bart and Moray, Nathalie, (2004). "A process study of entrepreneurial team formation: the case of a research-based spin-off." *Journal of Business Venturing*, Vol. 19, pp. 55-79.
- Cooney, Thomas M., (2005). "What is an Entrepreneurial Team?" *International small business Journal*, Vol. 23, No. 3, pp. 226-235.
- Fitzsimmons, Jason R. and Douglas, Evan J., (2011). "Interaction between feasibility and desirability in the formation of entrepreneurial intentions." *Journal of Business Venturing*, Vol. 26, No. 4, pp. 431-440.
- Francis, Deborah H. and Sandberg, Willian R., (2000). "Friendship Within Entrepreneurial Teams and its Association with Team and Venture Performance." *Small Business Economics*, Vol. 16, pp. 263-278.
- Granovetter, Mark S., (1973). "The Strength of Weak Ties." *The American Journal of Sociology*, Vol. 78, No. 6, pp. 1360-1380.
- Holt, Nicholas L., (2003). "Representation, Legitimation, and Autoethnography: An Autoethnographic Writing Story." *International Journal of Qualitative Methods*, Vol. 2, No. 1, pp. 18-28.
- Lechler, Thomas., (2001). "Social Interaction: A Determinant of Entrepreneurial Team Venture Success." *Entrepreneurship Theory and Practice*, Vol. 25, pp. 5-25.
- Nordin, A., Motte, D., Hopf, A., Björnemo, R., and Eckhardt, C., (2010). "Complex Product Form Generation in Industrial Design: A Bookshelf Based on Voronoi Diagrams." *Design Computing and Cognition*, Vol. IX, pp. 701-720.
- Ruef, M., Aldrich, Howard E. and Carter, Nancy M., (2003). "The Structure of Founding Teams: Homophily, Strong Ties, and Isolation among U.S. Entrepreneurs." *American Sociological Review*, Vol. 68, No. 2, pp. 195-222.
- Watson, Warren E., Ponthieu, Louis D., Critelli, Joseph W., (1995). "Team Interpersonal Process Effectiveness in Venture Partnerships and its Connection to Perceived Success." *Journal of Business Venturing*, Vol. 10, pp. 393-411.
- Zimmerman, Monica A. and Zeitz, Gerald J., (2002). "Beyond Survival: Achieving New Venture Growth by Building Legitimacy." *The Academy of Management Review*, Vol. 27, No. 3, pp. 414-431.

Books:

Hisrich, R.D., Peters, M.P. and Shepherd, D.A., (2008). *Entrepreneurship*, 7th edition, New York: McGraw-Hill.

Stinchcombe, A.L., (1965). Social structure and organizations. In J. G. March, (Ed.), *Handbook of organizations: 142-193*. Chicago: Rand McNally.

Websites:

Henry Ford. (n.d.). BrainyQuote.com. Retrieved May 25, 2011, from BrainyQuote.com
Web site: <http://www.brainyquote.com/quotes/quotes/h/henryford121997.html>

Other:

Hafstein, Birgir H., Karsten, Lea-M., Mullett, Adam B., (2011). "Shapeyard" (unpublished business plan). Lund University, Sweden.

Hafstein, Birgir H., (2010). Learning Journal, December 3. Unpublished manuscript.

Hafstein, Birgir H., (2010). Learning Journal, December 17. Unpublished manuscript.

Hafstein, Birgir H., (2011). Learning Journal, January 14. Unpublished manuscript.

Hafstein, Birgir H., (2011). Learning Journal, January 21. Unpublished manuscript.

Hafstein, Birgir H., (2011). Learning Journal, January 28. Unpublished manuscript.

Hafstein, Birgir H., (2011). Learning Journal, February 25. Unpublished manuscript.

Hafstein, Birgir H., (2011). Learning Journal, April 1. Unpublished manuscript.

Hafstein, Birgir H., (2011). Learning Journal, April 15. Unpublished manuscript.

Karsten, Lea-M., (2010). Bespoke Products [email] (Personal communication, 6 October 2010).

Karsten, Lea-M., (2010). Re: Bespoke Products [email] (Personal communication, 8 October 2010).

Karsten, Lea-M., (2011). Board Meeting Transcript, February 2. Unpublished manuscript.

Karsten, Lea-M., (2011). Board Meeting Transcript, April 7. Unpublished manuscript.



Shapeyard allows customers to design their own furniture using natural morphologies

Business-Team:

Adam Mullett - adam@shapeyard.se

Birgir Hafstein - birgir@shapeyard.se

Lea-Marike Karsten - lea@shapeyard.se

Research-Team:

Axel Nordin - axel@shapeyard.se

Andreas Hopf - andreas@shapeyard.se

In collaboration with LU Innovation & Leap Strategies

5 May 2011

shapeyard



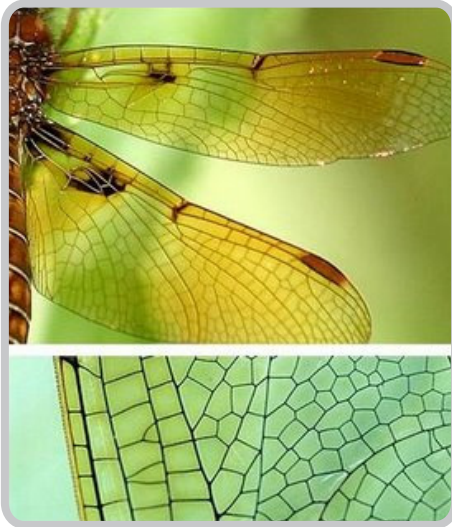
Table of Contents

| | |
|----|---------------------------|
| 1 | Executive Summary |
| 2 | Business Idea |
| 5 | Marketing Plan |
| 13 | Business Model |
| 15 | Organization |
| 19 | Implementation |
| 20 | Profitability & Financing |
| 21 | Risk Analysis |
| 24 | Appendix |
| 33 | References |



Executive Summary

Shapeyard allows customers to co-create their own unique shelving, tables, lighting and more using morphologies that exist in nature. The morphologies are not only aesthetic and functional, but they are by their definition very stable and can be individualised to a previously unseen level. Customers have the chance to co-create designs choosing the shape, material and size before production.



Shapeyard uses a proprietary software platform developed at Lund University that lets customers co-create consumer durables, making choices about the furniture so it fits their needs and desires. The customer's personal design has its aesthetic, functional and production parameters concurrently met, enabling on-demand production of one-off items. Often customers want a product that is not available on the market or they may have an irregular space in their house. Shapeyard solves these problems.

Going to a designer and/or carpenter to make something specifically for you is slow, daunting and very expensive. Shapeyard offers customisable products at a competitive price with rapid delivery. From start to finish, the production process can be as little as two weeks (see appendix I).

Customers co-create their furniture based on pre-designs in consultation with our staff. We plan to build a website that would allow customers to designs online (further consultation may be necessary). Due complex software, the web-based service is not immediately available.

Shapeyard customers get the chance to create one-off, unique and environmentally friendly items of furniture that they otherwise would not have had access to. Initially, Shapeyard generates revenues by direct sales, then through shopfronts and later via the Internet.

Regarding intellectual property, we announced our software in public, forfeiting our chances of a patent. We will keep the code a trade secret, continuing to develop it, making it harder for competitors to imitate.

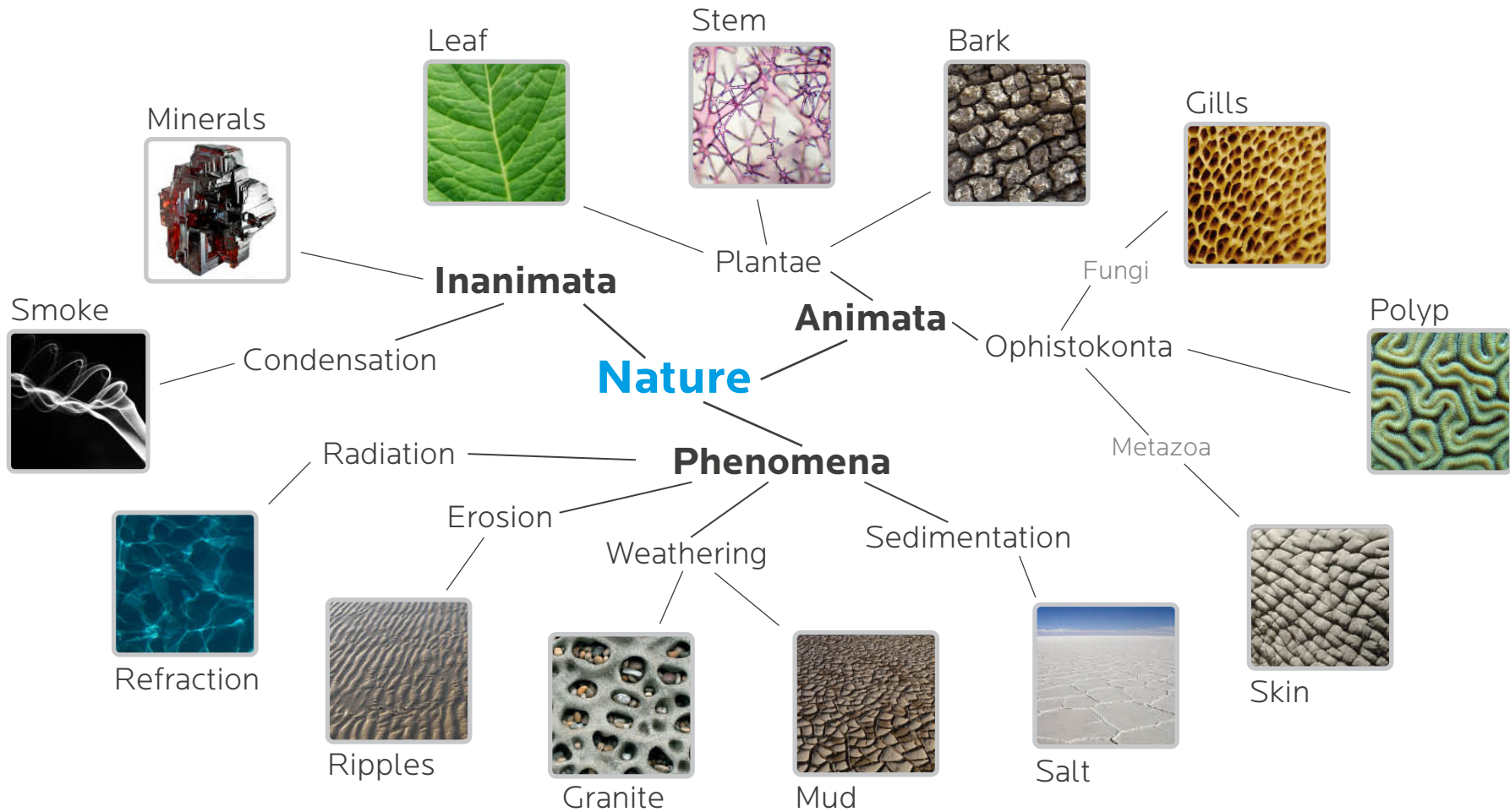
The team is comprised of communications manager Adam Mullett, production manager Birgir Hafstein and logistics manager Lea-Marike Karsten. The researchers are designer Andreas Hopf and engineer Axel Nordin.

We plan to make 36.1 million SEK in revenue by the end of the third year by selling an average of 20,000 SEK worth of products to around 2,900 customers.

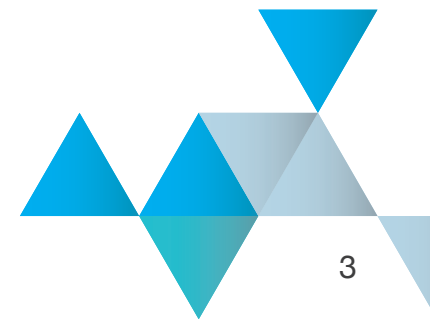
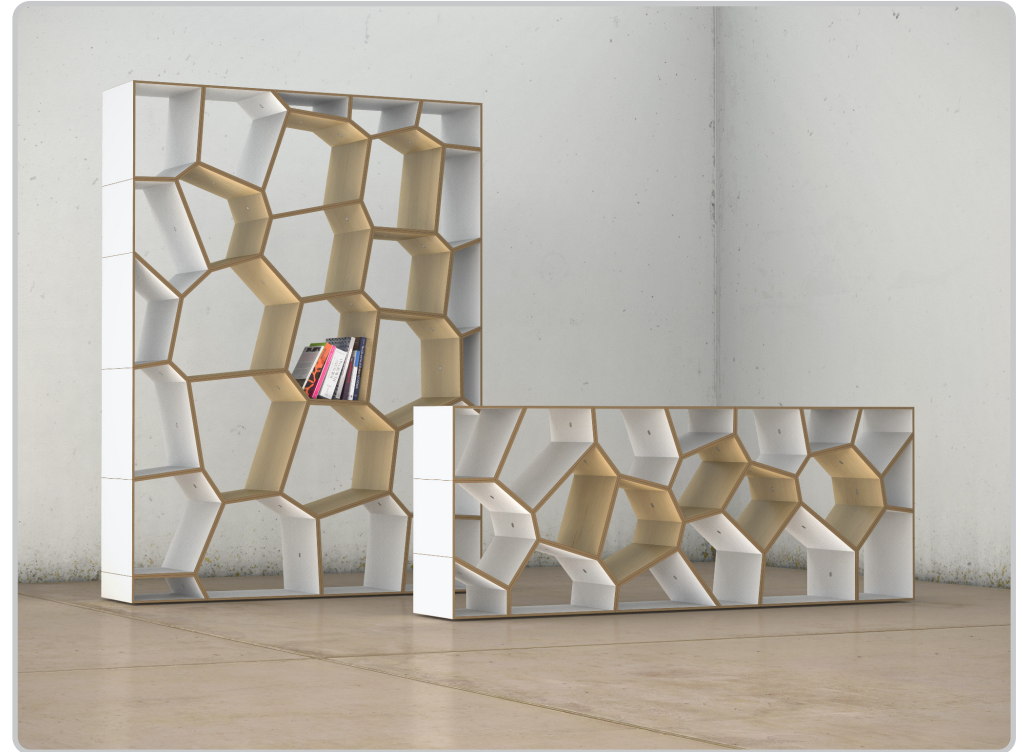
*"36.1 million SEK
in revenue by end
of year 3"*

Business Idea

Shaperyard is a company that brings co-created furniture based on natural morphologies to customers in the form of shelves, tables, lighting and other accessories for the home. High end furniture for the top echelon of society that is elegant, exclusive and personal.

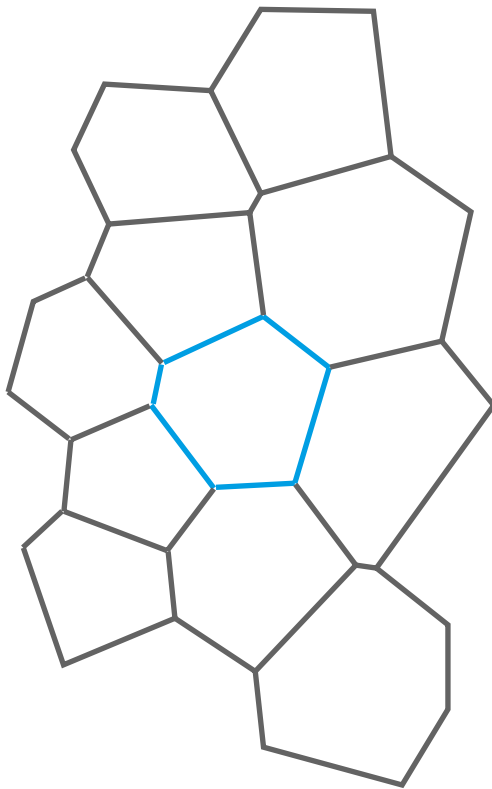


So far, we have made prototyped shelves and tables that are based on a 2D-tessellation, also known as the Voronoi diagram. Such tessellations occur often in animate and inanimate nature (for example on zebra skin or a dried river bed) where it emerges through processes resulting in a stable equilibrium of forces. We also have predesigns in the “Chinese Lattice” and four other tessellations to choose from.





Natural Morphology (Voronoi Pattern)



Designers often simply mimic nature for its aesthetics. By bringing natural tessellations or morphologies to design and using them actively in the design process you can make furniture that is both beautiful and structurally stable.

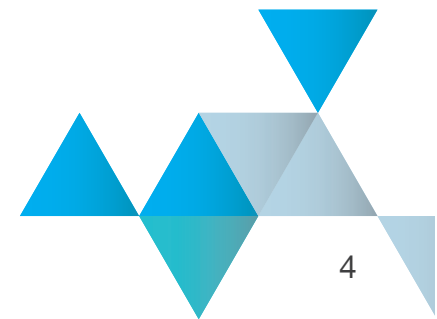
We add value by helping customers co-create unique items of furniture, out of materials of their choice. We exist in various stages of the traditional value chain: in the design, consultation, and service of the furniture. We outsource the production and delivery of the items, but we take responsibility for the final product.

Customers can choose from a range of materials that are available depending on what our producer has in stock. Today customer tastes are diverging more than ever. For example, our potential customer Fredrik Malmberg told us he wanted to buy a nice shelf from a place in Småland, but the choice of colours was limited to white and there was only one material available. Not only that, it would take six weeks to produce.

Shapeyard allows customers to produce their own design (based on a pre-design), choose the colour, size, shape and material type. Our prototypes were produced in less than a week and based on this time, we forecast that orders could be fulfilled in as little as two weeks.

In terms of intellectual property, a strategic move was made and we decided to announce our software to the public in scientific journal articles, trade shows and newspapers, forfeiting our chances of a patent. Instead we intend to keep the software code a trade secret, continuing to develop it, making it harder for competitors to imitate.

As part of our strategy development, we are incorporating the recommendations of Leap Strategies, an environmental strategy development consultancy that will help us work to make our company green. Leap Strategies will help us choose various production methods, materials, transport and disposal schemes that will both work in terms of business, but also work in harmony with the environment.



Marketing Plan

Market Description

The target customers of Shapeyard are affluent and have relatively high amounts of disposable income. They are male and female, between 35 and 55 and fit into the highest income bracket, earning more than 400,000 SEK per year. Our customers are interested in design, furniture and exclusivity. They are interested in attractive and inspiring items of furniture and want to be involved in more than just making a purchase decision. They are willing to spend extra money in order to accentuate their uniqueness and engage in a creative process. Though affluent, they are time-poor and would need a consultant who assists in development.

As seen in table 1, the segment is primarily located in the Stockholm, Gothenburg and Skåne regions. The high income earners in these regions amount to 361,141 people, or 69.9 percent of the country's population in this segment.

Table 1 - Analysis of High Income People by Regions

| Region | # of High Income People | % of Country | % of Regions |
|-----------------|-------------------------|--------------|--------------|
| Sweden | 540,109 | | |
| Stockholm Area | 210,492 | 39.0% | 58.3% |
| Gothenburg Area | 88,768 | 16.4% | 24.6% |
| Skåne Area | 61,881 | 11.5% | 17.1% |
| Total | 361,141 | 66.9% | |

Data source: www.scb.se [2]

We are targeting the domestic furniture segment initially because it has the least amount of regulations and we have good access to producers suited to small scale production.

Our contact with potential customers, suppliers and industry experts shows us that we need to create pre-designs that customers can modify to add their own personal touches to. Heavier and more detailed design requires expertise that consumers do not have.

Customer Profile



“I’d prefer to have some do the design for me using pre-designs...meet a consultant who says they can do what I want. They can show me some suggestions with this trim and that trim and give me tips and so on,” Fredrik Malmberg, a potential customer told us (see LOI in appendix II a).

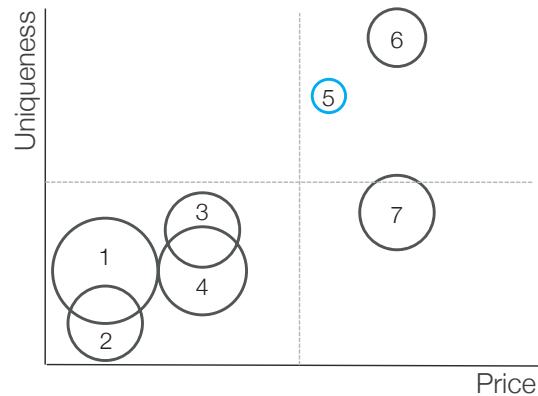
Industry Analysis

The furniture industry in Sweden is one of the European Union’s biggest per capita. The massive players in the industry dominate and make furniture for the masses at affordable prices. The size of the Swedish furniture market is 22 billion SEK annually [1].

The competition in the field is intense. The furniture market as a whole is highly developed and very competitive. IKEA, Mio and Jysk dominate the market in Sweden to a large extent.

Mass-customization and co-creation are the new buzz words in the industry and there are many companies who are entering this field in some way. Though many companies simply offer simple superficial changes (for example two distinct table lengths or three wood colours), we offer a greater degree of customization with a co-created design as well as the choice of morphology, material and size (down to the millimetre). Our company offers a new way to work in the furniture market. By streamlining the processes of design and production, customers, designers and producers are brought closer together than ever before.

Competition



- 1 - IKEA
- 2 - Jysk
- 3 - Mio
- 4 - Ilva
- 5 - Shapeyard
- 6 - Designers
- 7 - Carpentries

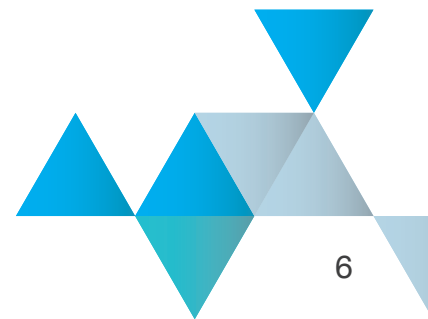
Market Strategy

We compete on the basis of new levels of product individualisation, unseen before in the furniture segment.

Another competitive advantage is the speed of production. We can deliver customized furniture in around two weeks (see appendix I), depending on material availability. This is possible due to the capabilities of our proprietary software, which automates structural feasibility analysis and production data output.

Compared to other players in the high end furniture market (designers and carpenters) we offer an affordable alternative to customers. We are able to cut costs and man-hours by automatically generating data for manual and CNC production.

To find our customers we will rely on our network and word of mouth marketing in the first year due to our lack of capital for marketing. We will sell furniture to people in our network who are also willing to present it to other potential customers such as friends, colleagues and clients.

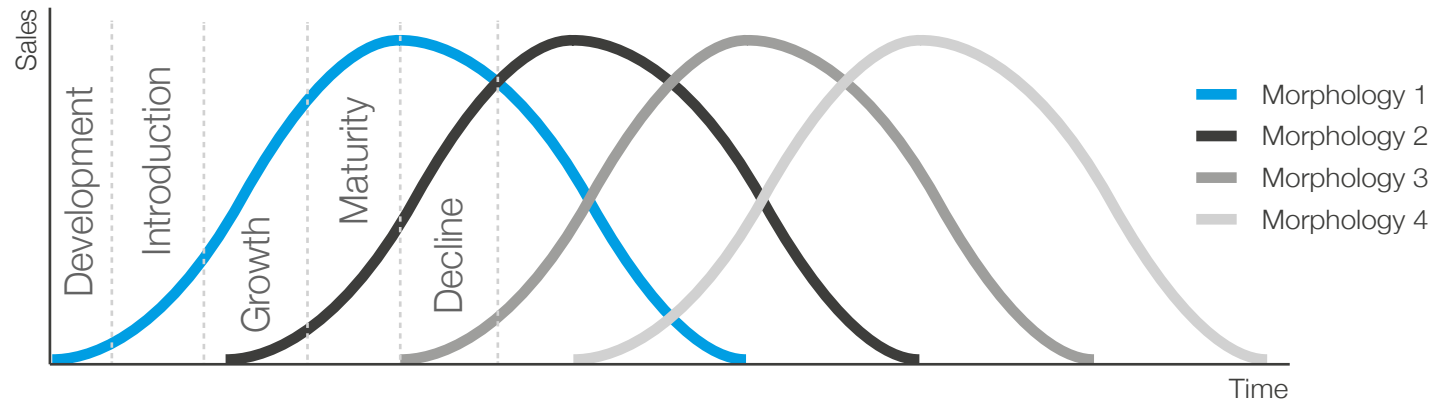




Product Roll Out

We start with a product line based on a certain morphology that we can design and also produce. Over time we will develop other morphologies and design tools that will become available to the consumer. We assume that some of our older patterns will go out of fashion or become superceded by newer ones.

Morphology Development



Note: This graph shows how we intend to roll out morphologies. Each line represents a new style for a product line.

Once we have established our brand with suppliers and customers using tables and shelves, we plan to expand into other categories including lighting or decorative ornaments such as fruit bowls, which are easy to make. The easy-to-implement and high-profit tables and shelves will give us a stable base to work from because of the lead time we will have on sales. We have established relationships with suppliers in Germany and Sweden (see appendix I). Also, we have two willing customers, Fredrik Malmberg and Zac Mullett, ready to buy the first units that will come off the production line (see LOI's in appendices II a & b).

Market Analysis

| | Domestic | Office | Children | Retail | Lighting | Accessories | Hotels |
|-----------------|----------|--------|----------|--------|----------|-------------|--------|
| Production Ease | ● | ● | ○ | ● | ○ | ● | ● |
| Profitability | ● | ● | ● | ● | ● | ○ | ● |
| Regulations | ● | ○ | ● | ○ | ○ | ● | ○ |
| Competition | ● | ● | ● | ● | ● | ○ | ● |
| Market Size | ● | ● | ● | ● | ● | ● | ● |

● High Feasibility
 ◐ Medium Feasibility
 ○ Low Feasibility



Entry Level Pieces

Through our customer research and dealings with producers, we have encountered several market entry barriers. Most centre around unfamiliarity with morphology design and the process of co-creation. To ease people into the idea and to reduce every one's risk (less social risk for the client, less risk for the producer in terms of time and materials and less risk for us in terms of lead time in sales) we have added a line of entry level pieces. Though in a similar style, they will be smaller, mass producible and lower priced than our other pieces. We intend to sell them via design stores. Along with each piece, a booklet with more information and marketing material will be distributed. This is how we will get exposure and enter the market.





Marketing

Our marketing strategy is set out over a few years. We will begin with a direct marketing strategy when we are small, utilizing word of mouth advertising, our Internet site as well as trade shows. Later, we will find a suitable location to open our first shop, adopting a “brick & mortar” approach. Following this, when we have enough cash flow to develop our cutting edge website to a high level, we will adopt a “bricks & clicks” approach, using the Internet to complement our shop fronts.

Direct Marketing

Our first customers will come from word of mouth marketing from people who buy our prototypes or entry level pieces and use them as demonstrator pieces in the lobbies of public buildings and hotels and so on. From this nucleus of interest we will find more customers.

Using trade shows that focus on home furniture, but also shows that focus on design, will find huge amounts of qualified prospect customers who are highly interested and motivated to buy new and interesting furniture for their home.

At this stage, our website will serve as catalogue for our products to date. It will showcase information about how we came to our unique designs, but will also show some pictures of existing prototypes.

There will also be an interactive and fun element to the website. We will develop an easy to use web application for customers. They will type in parameters about the length, width, height and which morphology shape they would like to have. The design is not complete at this stage, but with our software we check if it's possible to build the piece as is and send them for a final quote or invite them for a further consultation.

During this first phase we will have a limited range of products due to the geographical scope of our production methods. Creating strong relationships with producers is crucial for our company's success and using the same producer repeatedly is something that will improve our product and our service.





2011

Direct Sales



2012

Brick & Mortar



2013

Bricks & Clicks

Brick & Mortar (shop fronts)

After one year of direct marketing sales, we aim to have enough capital to launch our first shop, which will continue to use the consultation method to sell furniture. By this time we will have expanded our product line. Choosing the location of our first shop is very important and we will do research into where our customers come from. However not only the current customer base is important. In terms of the design world, it is important to consider the implications of city launch choice. Berlin, Copenhagen, Stockholm, Barcelona, London and Milan have been preliminarily been chosen for future research.

Bricks & Clicks (shops and internet sales)

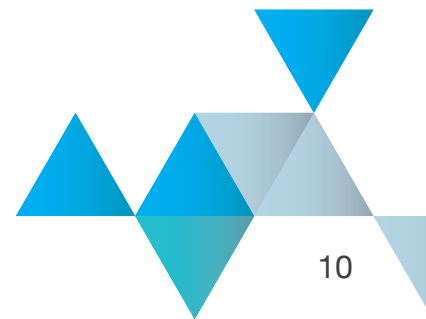
By the third year we would like to have a highly technologically capable website where users could actively invent their own designs, choosing from different materials, product categories, forms and structures. This would allow people to work creatively from home and increase sales due to that luxury. By this time the website would not just have a web application for making simple models, but would actually be able to make manufacturing calculations.

Producers

One of the cornerstones of our business are the relationships with producers. Developing good relationships means that we will have a quick turnaround on items produced and high quality products. Initially we will need to educate producers about our concept and work with them on the production process to find the best way to build the new and challenging designs that customers might order.

Due to this fact, one of our main challenges is to find reliable producers that are interested in our concept and willing to work with us. This process has already begun and we have produced five different prototypes with five producers (see appendix I) in Germany and Sweden. In addition, we have initiated relationships with six workshops in the Blekinge and Småland regions.

Production will be local in the foreseeable future, both in order to have good quality control and to maintain a good relationship with our producers. Initially, we expect the production to be based mainly in the Blekinge and Småland regions. While it is important for us to have good relationships with producers, it is also important that we cultivate a large array of contacts to hedge against potential risks such as bankruptcy of one workshop or a deferral of our orders for long periods of time.





Sales

In the first three years we hope to achieve a market share of around 0.5 percent of our target market. We assume that we will maintain this market share over the three year period, taking into account our expansion into new markets. Therefore, our projected sales revenues amount to roughly 36 million SEK in the third year, or just over 57 million SEK accumulated. Given our sales estimations and the fact that the annual furniture market of Sweden is estimated at around 22 billion SEK yearly [1], we would hold around 0.16 percent of the total furniture market at the end of year three.

Projected Revenues (in millions of SEK)

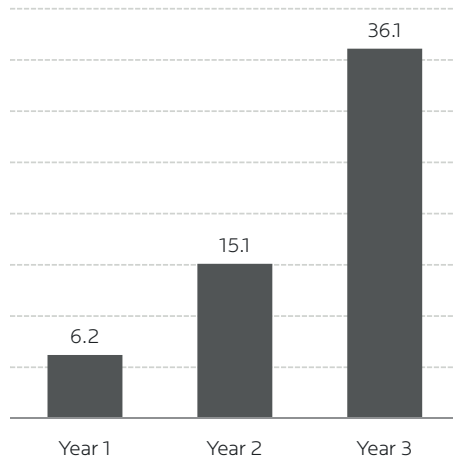


Table 2 shows our sales goals for the first three years. In year one we plan to reach 0.5 percent of the Skåne segment (309 customers). We estimate the yearly purchases of each customer to be 20,000 SEK on average.

In the second year, we will roll out to the Gothenburg market with the same market share goal of 0.5 percent (444 customers.) Finally, in the third year we plan to expand to the Stockholm region (1,052 customers).

Table 2 - Market Share Goals & Projected Revenues

| | Year 1 | Year 2 | Year 3 |
|---|-----------|------------|------------|
| Market share goal (% of high income people) | 0.5% | 0.5% | 0.5% |
| Market share goal (# of high income people) | 309 | 753 | 1,806 |
| Market share goal (% of total furniture market) | 0.03% | 0.07% | 0.16% |
| Projected customer spend p.a. (SEK) | 20,000 | 20,000 | 20,000 |
| Projected revenues p.a. (SEK) | 6,188,100 | 15,064,900 | 36,114,100 |

Data source: www.scb.se [2]

Per capita, Swedes spend the most in the EU on household items and furniture at 2,380 SEK, almost double the EU average of 1,491 SEK. Since 2004, industry growth has averaged 13.5 percent per annum, compared to 5.5 percent in the EU as a whole [1].

According to the EU's statistics agency Eurostat, 2008 domestic furniture production segmentation was: kitchen furniture 56 percent; furniture parts 19 percent; bedroom furniture 10 percent; other furniture 6 percent; dining and living room furniture 5 percent and non-upholstered seating 3 percent [1].





Environmental Strategy - With Leap Strategies

Shapeyard inherently generates lower environmental impacts than many other furniture manufacturers because our individual units reduce natural resource requirements. We focus on durable, high quality products with longer lifespan than many of the “throw away” models on the market.

Our long-term goal is to sell via our website, which will reduce the need for office and floor-space, lowering environmental impact. Considering that our target market are generally environmentally conscious, we plan to develop this into a focused competitive advantage by positioning ourselves as environmentally responsible furniture providers.

As advised by our environmental consultants Leap Strategies, we will address our environmental aspects throughout the product life-cycle by sourcing all our input material from environmentally certified providers (e.g. Forest Stewardship Council (FSC) certified wood/chipboard). We aim to use environmentally responsible transport providers. We are also investigating options to manage product “end of life” in a responsible manner. Options are a take back programme, where Shapeyard will manage end of life for customers, potentially recycling these materials.

A second option, although more research is required, is to develop a product service system (PSS), where furniture is leased over the long term (say 3-4 years) to individual clients, who like the novelty of new furniture every few years. Following the end of the term, the furniture is returned and replaced with the latest design.

These end of life options are not only more environmentally responsible, but also guarantee that Shapeyard maintains personal contact with the client post purchase, and is the primary option for repurchases. We are sure that our robust environmental profile will further differentiate us from our competitors and increase our attractiveness to our target customer. The end result is increased willingness to pay and improved brand value. This can be characterised as an “eco-branding” environmental strategy (see appendix III). [3]

Business Model

Shapeyard's business model is to generate revenue via direct sales, shops and sales from our website. These three revenue streams will be implemented in sequence as our cash flow and capital grow. In the first years Shapeyard will be a niche company growing organically.

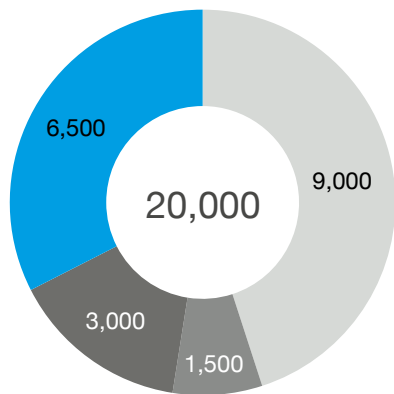
The aim of our business model is to create a novel and interactive way of creating and buying furniture. We enable customers to be creative, co-creating a unique piece of furniture for their home. Our design program makes it possible to cut out the time consuming and costly processes of making the product, because of the data that's generated by the program. In around two weeks we are able to produce the ordered piece of furniture for our customers.

The production in our business model is outsourced to producers in Sweden, located in Blekinge and Småland. Also the assembly and delivery of the end product is outsourced to freight companies. We decided to outsource these activities because the costs to build up our own production line would demand a high investment. Also companies that have the right capabilities to produce for us in Sweden have underutilized capacity, which they would like to fill with our production.

Our pricing strategy is value-based. Normally, customers purchase furniture from well know, high priced brands because they feel that their personal value is equal with the price. In our case, the perceived value is derived from in-depth participation in the product's development process and new level of individualisation.

We estimate that the average annual purchase per customer would be 20,000 SEK. For example, for a shelf at that price, production is around 9,000 SEK, delivery about 1.500 SEK and our service costs are approximately 3,000 SEK for consultation and organisation of the whole process. This leaves us with a profit of about 6,500 SEK or a profit margin of 32%.

Cost Structure
(Shelf - 20,000 SEK incl. VAT)

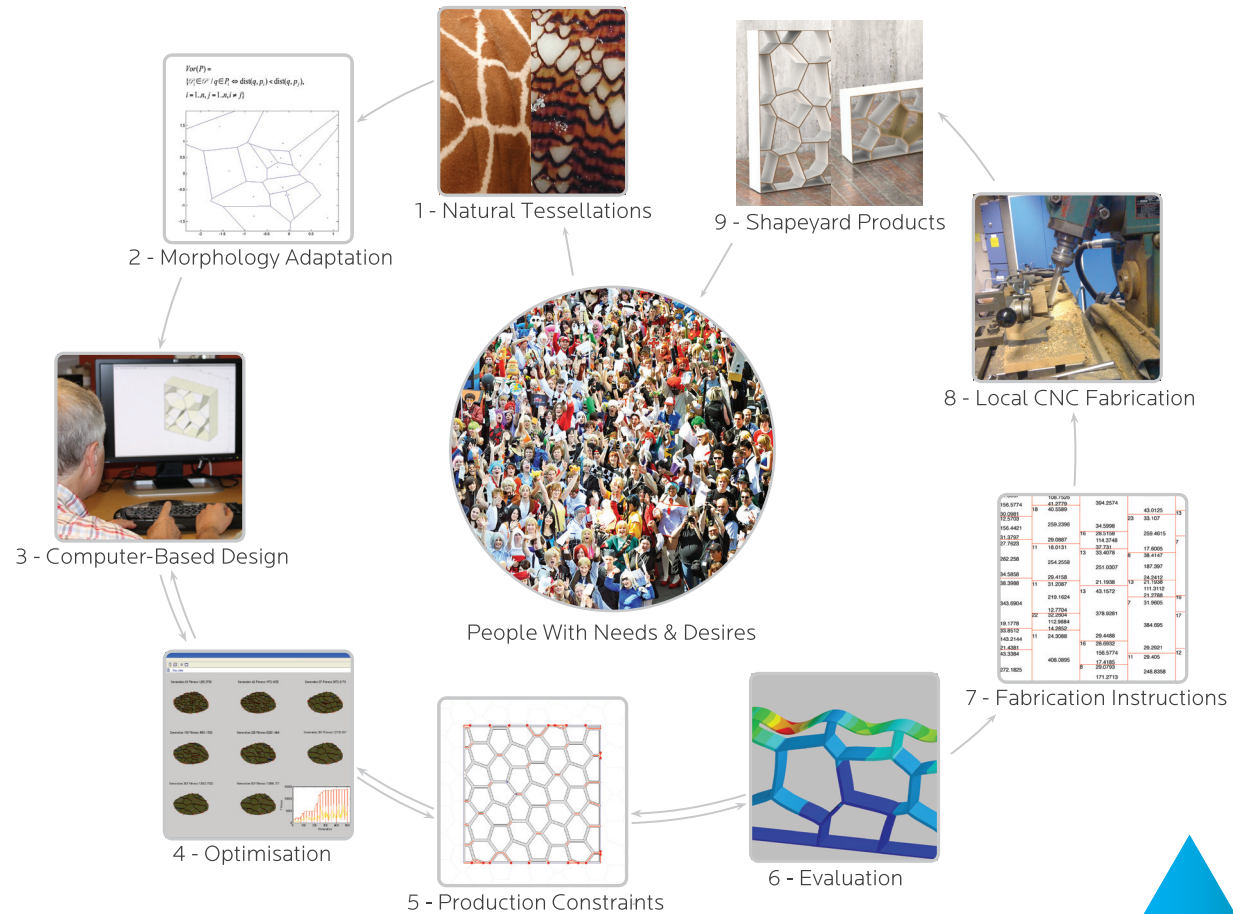


- Production
- Transportation
- Service
- Profit

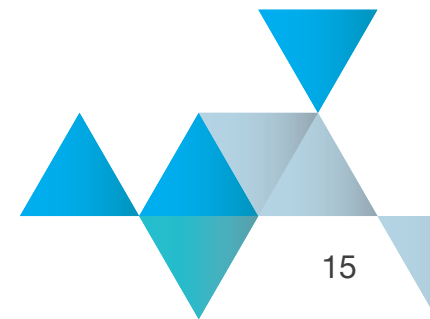
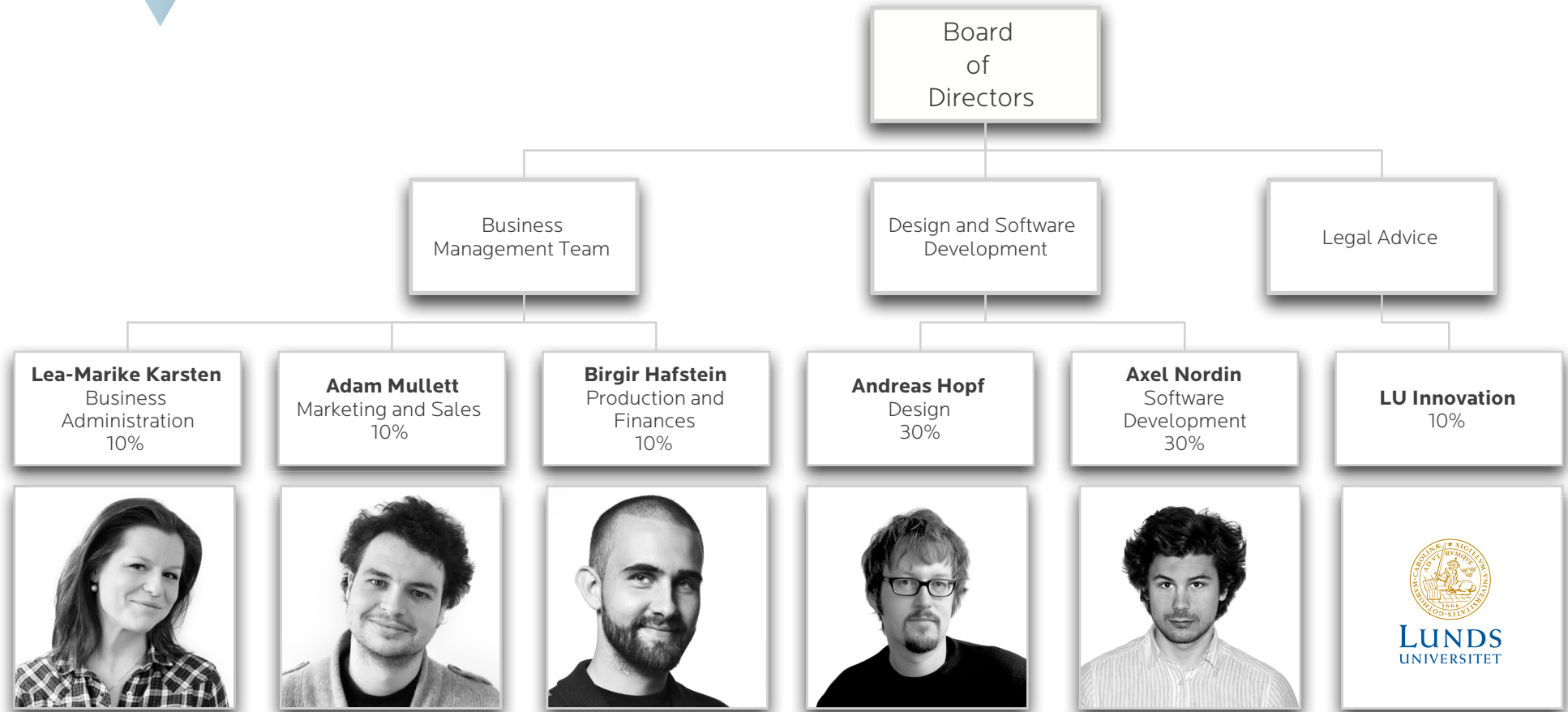
Our value chain looks different to that of the global furniture market because the customer drives our development. Most of our furniture will get produced in an order-based and customized fashion, but our entry level pieces will be mass produced. Making large orders of entry level pieces will help us create a good relationship with producers in terms of volume commitments. Also we will discuss the pre-designs and the customizable options with the producer first to ensure the production friendliness and efficiency of designs.

The graphic shows the value chain when the customer chooses to co-create a piece of furniture with our design consultant. To the customer the process is opaque: we take care of the entire process from start to finish for them.

Picture 3 - Value Chain



Organization





“LU Innovation will match external investment up to 300,000 SEK”

The Management Team

Lea-Marike Karsten - Business Administration and Logistics Manager

Lea is a 25-year-old from Germany. She has a Bachelor Degree in Technical Business Administration and Logistics as well as a certificate as a banking professional due to her working experience of six years in an international bank in Germany. Also she grew up in a business household holding two furniture stores and a carpentry. The former start-up experience of Lea is in the Logistics and the furniture sector. She already started up a logistics platform in Germany and the production of bamboo furniture. Both businesses are still running successfully. Lea can offer Bespoke Products a lot of former experience in the crucial sectors of the business and is putting in her main competencies which are organisation and structuring.

Adam Mullett - Marketing and Communication Manager

Adam is a 25-year-old journalist from Australia who lived for the last five years in Belgium, Germany, Lithuania and now Sweden. He has a Bachelor degree in Communications with majors in Advertising and Journalism. He has also worked in the television industry and in the exhibition industry. He successfully started and closed a tour company in Lithuania and was also the co-founder of the news website BalticReports.com. Adam is really passionate about writing and has excellent communication skills. Therefore he is responsible in Bespoke Products to develop the advertisement and marketing our customers like, also he is responsible for finding and attract our customers.

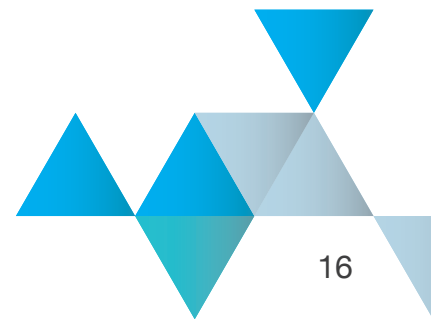
Birgir Hafstein - Finance and Production Manager

Birgir is a 28-year-old economist from Iceland who moved to Lund in summer 2009. He has a Master in Economics and in Iceland he worked for two years in the asset management department of Landsbanki as a fund manager. Also he worked as a woodworker for two years, which makes him competent for controlling the production of Bespoke Products and evaluate the results from our producers. Furthermore his financial skills add a lot of value to Bespoke Products financial planning and strategies.

LU Innovation

Sven Olsson - LU Innovation Representative and a Board Member

LU Innovation is Lund University Technology Transfer Office (TTO). They help researchers from Lund University to commercialize their research. In Bespoke Products they hold 10% ownership of the business and gives therefore legal advice and financial help. LU Innovation provides up to 50,000 SEK until May 2011 for Bespoke Products. Also they match up to 300,000 SEK in May 2011 if we find external investment of at least the same amount.





The Research Team

Andreas Hopf — Designer

Andreas is a 42-year-old designer from Germany. He has 18 years experience in designing consumer products for major brands and 7 years experience in design education at university level in Sweden. He has also been running a design consultancy with various partners for 11 years in the UK and Germany. Andreas is the responsible designer of Bespoke Products. He is designing the pre-designs and the customization possibilities as well as checking the production friendliness and cleverness of the designs. Andreas is also a member of the board of Bespoke Products.

Axel Nordin — Design Engineer and Programmer

Axel is a 24-year-old design engineer from Sweden. He has a Master Degree in Mechanical Engineering. Furthermore he has been researching and creating computer based tools for generating bespoke products over the last two years. Axel is responsible in Bespoke Products for developing the software to a bigger extent constantly. Also adding different product categories and controlling external IT deliveries.

The Board of Directors

In Addition to the aforementioned Andreas Hopf, from the research team and Sven Olsson, from LU innovation, the board includes the following members.

Bengt L. Andersson — Chairman

Bengt is currently active as chairman / member of a number of companies and consultants with a focus on mentoring and development of business. He was previously Global HR Director and CEO of Tetra Pak in Sweden.

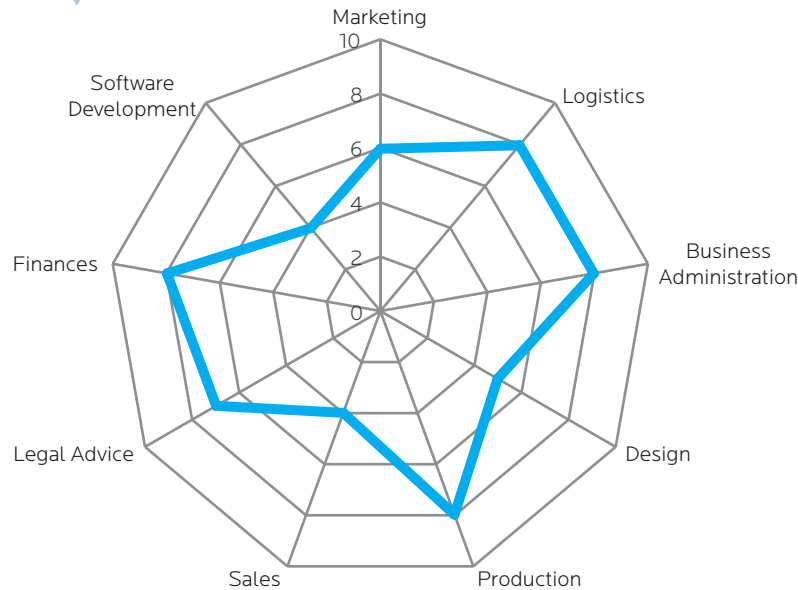
Peter Berntson — Board Member

Peter is a member of five boards from different companies. He is also an advisor in industry matters to IKEA having previously been MD and group head of IKEA AB's industrial group Swedwood, which Peter took from 2 employees to 14 000 employees in over 35 factories all over Eastern Europe. Since his retirement in 2006 he is active on different boards and studying as well as educating.



As seen in the graphic some competencies are lacking in our company that need improving. For example, sales competency needs to be improved when opening our first shop.

Competence Net



- For the first year, the management team will be responsible for the sales. In the second year we will employ specialist people for sales.
- Over time we will introduce more product categories and we will need more software development power. Therefore we will have to employ another programmer. This goes hand in hand with the designing.
- The marketing section of Shapeyard needs more hands because of the high workload, particularly in addressing our customers and developing strategies to position Shapeyard in the market.

From the outset, our aim is to develop a culture of innovation in Shapeyard. Our company is living through customization and needs a constantly innovative approach to address customers who are interested in their complete individuality. This complements our vision of Shapeyard. We are aiming to become a well-known, mid-size company which is famous for their solutions in customizing not only furniture but also all different kinds of domestic products in the future.

Exit Strategy

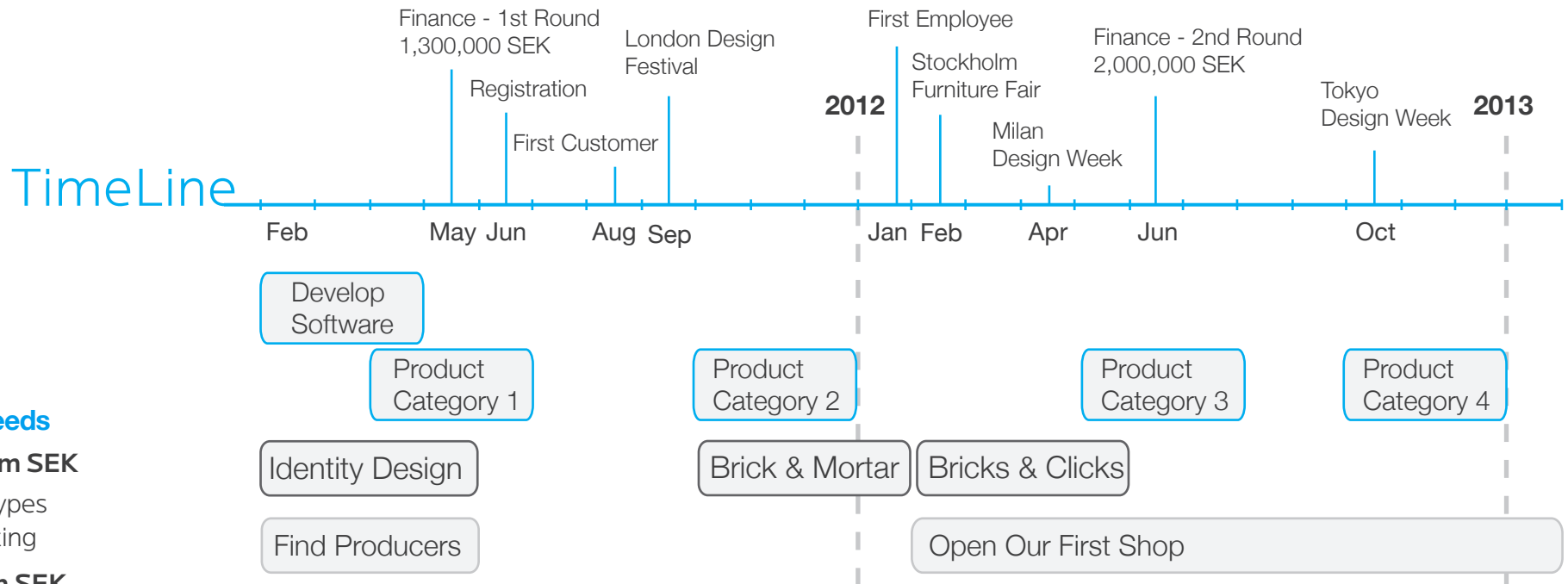
From a realistic point of view we know that there can be situations that our company is attractive for sale. We are aware of this and are open to sell the company if this is the most valuable option. We could also merge with other companies, which would be a useful opportunity to stabilize and grow our company.

An IPO is unlikely during the first five years, because we think we will not have the required size in terms of turnover and profit.

We are also prepared to dilute our shares in favour of external investors to guarantee a financial stability in our business in the early stages.

Implementation

We want to establish Shapeyard in summer 2011 and get our first customers at that time. We need investors for our company to secure our start-up financially. In the first quarter we will have a negative cashflow, so we need external investment before starting the company. Other milestones are the development of our business model in the next three years as well as finding further financing. (for a detailed gantt chart see appendix IV).



Capital Needs

Year 1 - 1.3m SEK

- Prototypes
- Marketing

Year 2 - 2m SEK

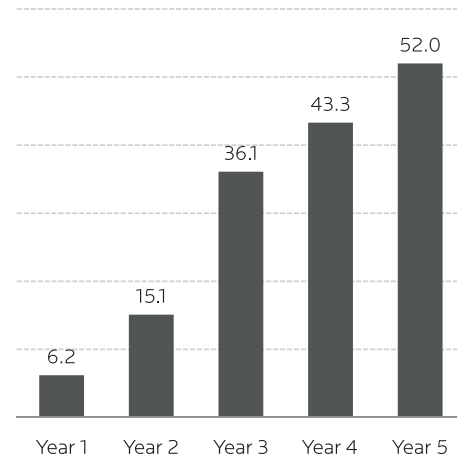
- Shop expenses
- Marketing

Currently the Management Team is developing market entry strategies, installing a webpage, designing a corporate identity, performing research about our customers and building prototypes at new producers to check their capabilities. The Research Team is developing the software and pre-designs for our first product lines and talking with producers about technical issues.

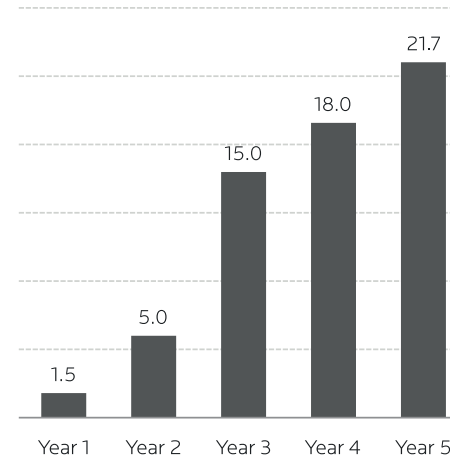
Profitability & Financing

A detailed financial analysis, along with all underlying assumptions are included in appendices VI a-c

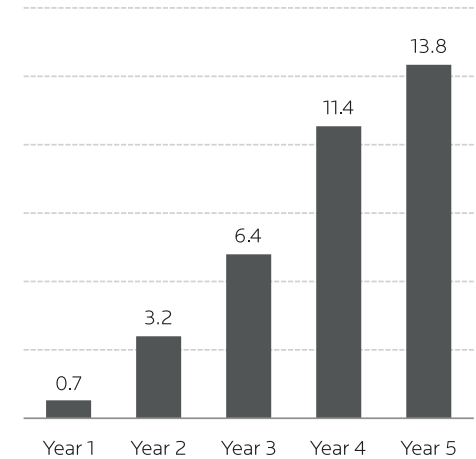
Sales Revenues
(in millions of SEK)



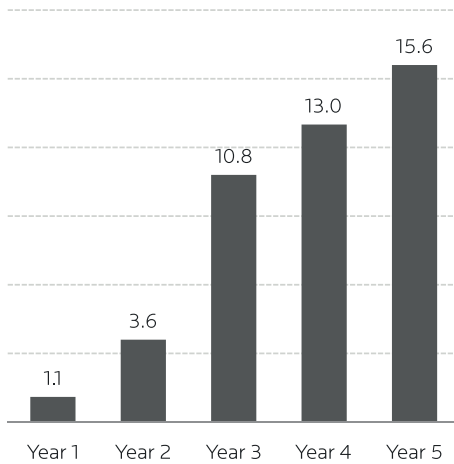
Income From Operations
(in millions of SEK)



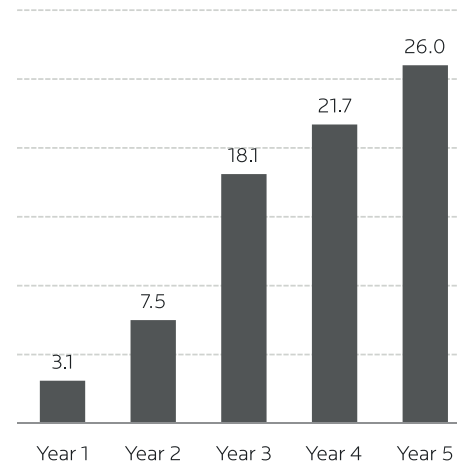
Net Cash Flow
(in millions of SEK)



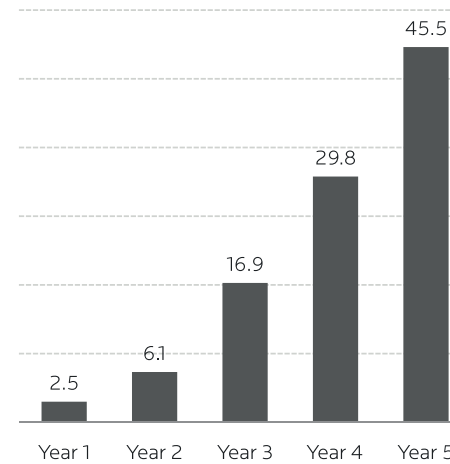
Net Income
(in millions of SEK)



Gross Profit From Sales
(in millions of SEK)



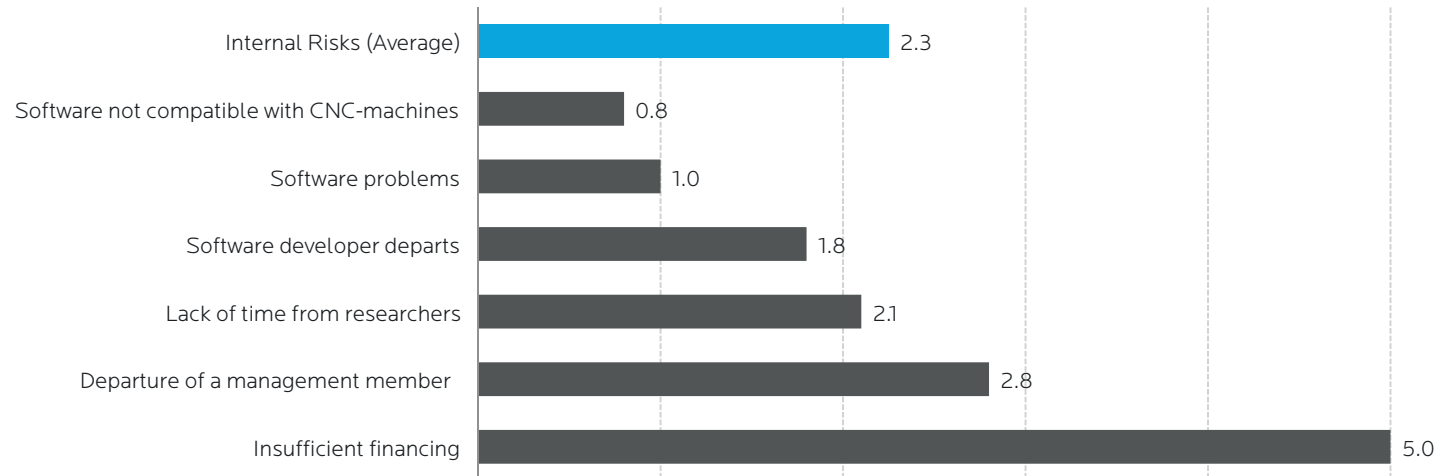
Total Assets
(in millions of SEK)



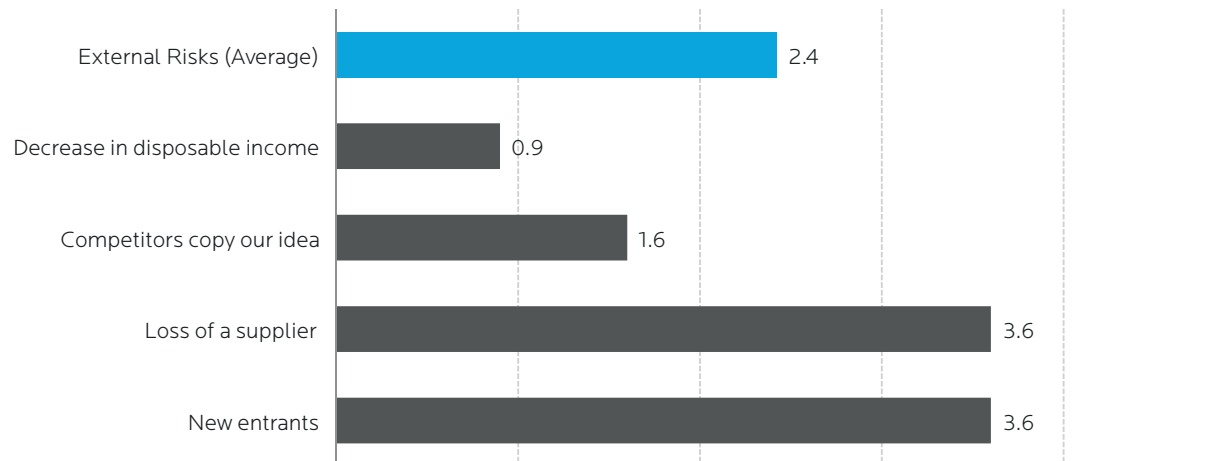
Risk Analysis

Following is a breakdown of the risks facing the company in the coming year (For details, see appendix VI).

Internal Risks



External Risks





Technical Risks

Internal Risks

As with all software, ours will have some bugs that will appear as people start to using it. It could also be the case that the outputs generated by the software aren't fully compatible with all CNC-machines used by our producers. These problems have to be fixed quickly or we face the risk of losing customers.

In the early stages this will be addressed by Axel Nordin, the team's mechanical engineer/programmer, but the long-term plan is to hire a full time programmer to solve these issues. Because Nordin is currently the only person who can fully operate the software, we will make it his responsibility in the ownership contract to deliver a working program, to train other members of the team and to deliver a user manual. These things should be done by the end of May, 2011.

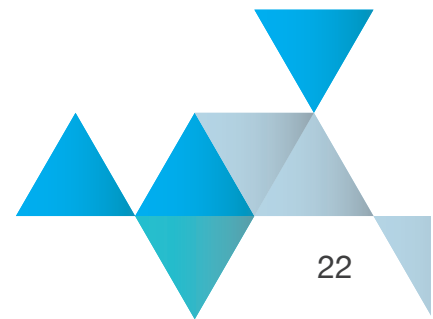
Economical Risks

Our company will need some external finance in the start-up phase in order to pay for prototypes, pay salaries as well as other expenses. If we don't succeed in securing enough finance it is a possibility that the company will go bankrupt. However, the management team is willing to lower (or sacrifice completely) their salaries for some time period. It is also possible to use bootstrapping methods in order to obtain free prototypes and lower other costs for rent, accounting services, legal services etc.

Staff Risks

Given the fact that the no one in the management team is Swedish, we face the risk of one or more of the members returning home and leaving the company. In addition, members in the management team could get external job offers. This would have a considerable impact due to the fact that our skills are somewhat different and complementary, so we would need to hire replacements. However, it is the intention of each individual in the team to take the idea to market and continue to work for the company until exit.

The research team will continue their work at Lund University so there might be a risk that they don't have the time necessary to devote to the company. If this were to happen we would lose some know-how related to the software, natural algorithms and design. To compensate this, we would need to hire the programmer sooner then expected as well as a designer.





Technical Risks

External Risks

Competitors in the field of customizable design furniture already have a head start in many respects. If they saw what we are doing, they could scale up to our capabilities because we do not have a patent on the software and will not have one in the future. To minimize this risk it is crucial to achieve first mover advantage in using the natural morphologies in good designs and gain exposure through fairs, magazines etc. We will also continue to develop the concept and the software underlying it, making it harder for competitors to imitate.

Economical Risks

Our target market is a very thin slice of society and our value based pricing strategy relies on them having a certain level of disposable income to be able to pay for our product. A decrease in disposable income would therefore negatively affect our sales but considering the good status of the Swedish economy, this should not pose a problem in the coming years.

Also any failures in production would be very disruptive to our process. For example, the bankruptcy of one of our suppliers would have major implications, given the limited number of suppliers. In that case it would probably take months to find a new supplier and build up a relationship. In order to avoid this we will seek to find reliable producers from the beginning that are willing to enter into long-term contracts.

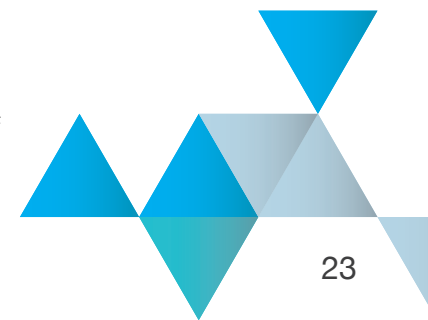
Market Risks

Given the increasing popularity of co-created/customized furniture, the risk of new entrants to the market is high. With an increased number of competitors it will be more difficult to maintain the necessary levels of sales. As previously mentioned, we will minimize this risk by first mover advantage and exposure as well as developing the software and adding to our base of pre-designs.

As always, with a new product, there is the risk of demand. We don't know in advance if people will actually buy our products. Therefore, it is crucial to have good exposure on the market and make our company's benefits known to consumers.

Environmental Risks

Due to the nature of our business and how we allow customers to choose any materials they want from our selection, there is the risk that we could lose the edge due to a material no longer being available. For example if a customer would be interested in certain types of engineered wood, but we were not able to supply it due to lack of availability or environmental restrictions, we would not be able to satisfy their desires.



Appendix

I - Prototypes

Bookshelf



- Production Time: 6 Hours
- Production Costs: 7,000 SEK
- Material: Plywood
- Delivery Time: 1 Week
- Producer: Plattenladen (Berlin)

Coffee Table



- Production Time: 6 Hours
- Production Costs: 2,000 SEK
- Material: Metal & Glass
- Delivery Time: 1 Week
- Producers: Linde Metalltechnik AB (Helsingborg), JSW Pulverlackering (Värnamo) & Värnamo Glasmästeri & sliperi AB.

Dining Table



- Production Time: 8 Hours
- Production Costs: 5,000 SEK
- Material: Metal & Glass
- Delivery Time: 1 Week
- Producers: Linde Metalltechnik AB (Helsingborg), JSW Pulverlackering (Värnamo) & Värnamo Glasmästeri & sliperi AB.



II a - Letter of Intent

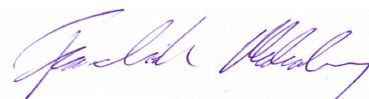
Fredrik Malmberg
Dag Hammarskjölds väg 1d
224 64 Lund
Sweden

Jan. 20, 2011

Dear Shapeyard management,

I have the intention to design and build a shelf that will hold my books and other ornaments for my living room. I believe that your software will be able to give me the solution that I need for my home, which I have been unable to find elsewhere. I am willing to pay between 12,000 – 18,000 SEK for the shelf, which I hope to be delivered in good time, hopefully two weeks.

Best Regards,



Fredrik Malmberg



II b - Letter of Intent

Zac Mullett
58 Faulkner Street
Hoole, Cheshire,
CH2 3BE, UK

Jan. 27, 2011

RE: Shapeyard furniture prototype

Dear Sir,

I am writing to you in order to notify you of my interest in financing a prototype of Shapeyard Products furniture item. My personal design space in central Stockholm is presently in need of lighting and shelving that will inspire and impress my guests. The Shapeyard Products prospectus demonstrates an interesting new technique in creating unique, eye-catching furniture that I believe will become popular amongst style-conscious Swedes.

Please contact me at your earliest convenience to discuss this matter.

Yours sincerely,



Zac Mullett
Managing Engineer

III - Environmental Strategy [3]



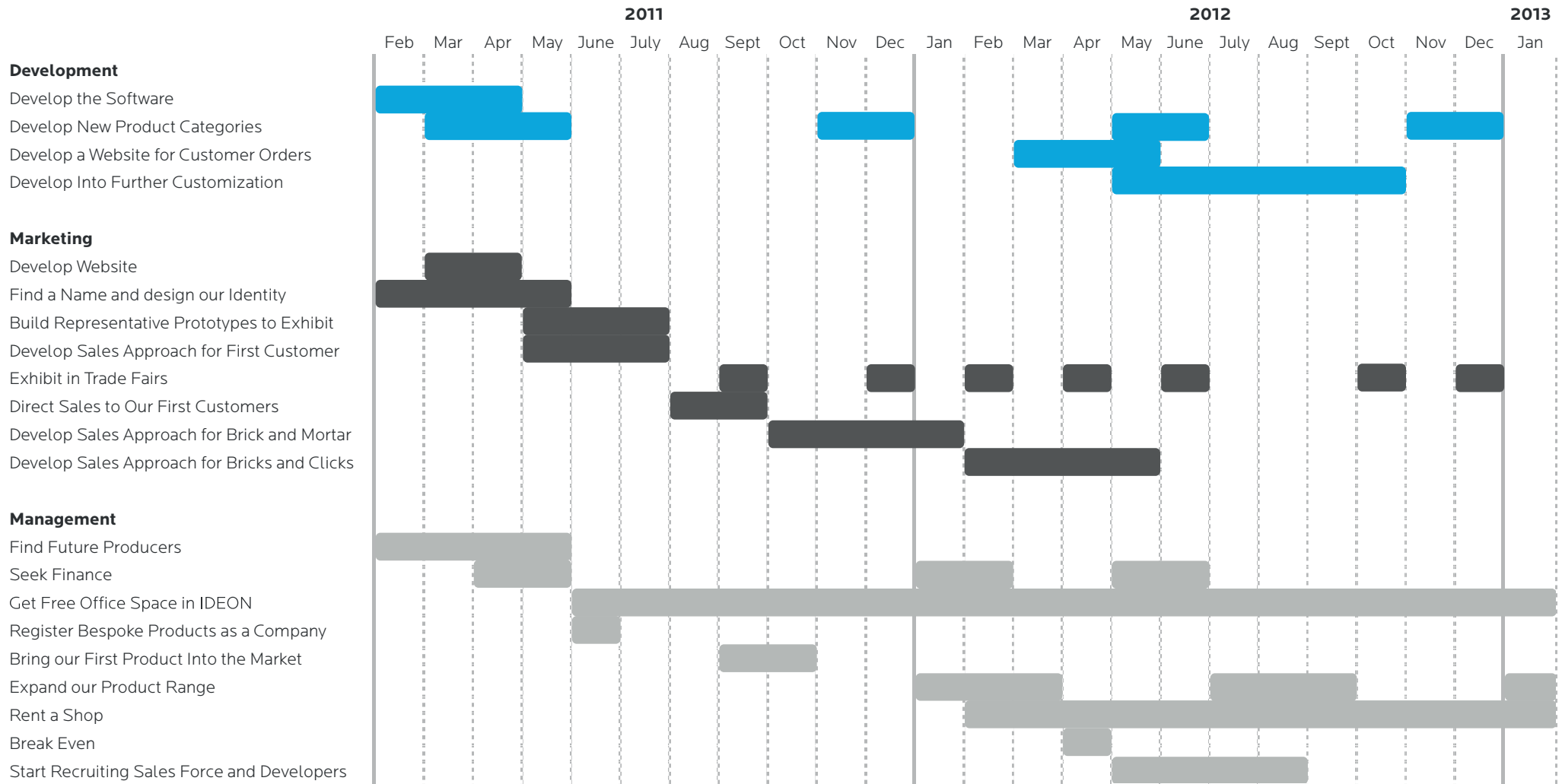
Source: (Orsato R. , 2009)

- Provides marketing differentiation
- Increases will to pay
- Business model hard to replicate

Eco-branding relies on:

- High quality
- Free access to information
- Third party verification (optional)

IV - Gantt Chart



V a - Income Statement

| | | Year 1 | | | | Year 2 | | | | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--------------------------------|----|----------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|--------|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | | | | |
| Sales Revenue | 1 | 1,280,000 | 1,480,000 | 1,800,000 | 1,620,000 | 3,140,000 | 3,600,000 | 4,360,000 | 3,960,000 | 6,180,000 | 15,060,000 | 36,120,000 | 43,344,000 | 52,012,800 | |
| Less: Cost of Goods Sold | 2 | -640,000 | -740,000 | -900,000 | -810,000 | -1,570,000 | -1,800,000 | -2,180,000 | -1,980,000 | -3,090,000 | -7,530,000 | -18,060,000 | -21,672,000 | -26,006,400 | |
| Gross Profit from Sales | | 640,000 | 740,000 | 900,000 | 810,000 | 1,570,000 | 1,800,000 | 2,180,000 | 1,980,000 | 3,090,000 | 7,530,000 | 18,060,000 | 21,672,000 | 26,006,400 | |
| Salaries | 3 | 207,000 | 207,000 | 207,000 | 207,000 | 353,700 | 353,700 | 353,700 | 353,700 | 828,000 | 1,414,800 | 1,808,280 | 2,241,108 | 2,717,219 | |
| Rent | 4 | 0 | 0 | 40,800 | 61,200 | 67,320 | 67,320 | 67,320 | 67,320 | 102,000 | 269,280 | 296,208 | 325,829 | 358,412 | |
| Shop Equipment | | 0 | 0 | 90,000 | 20,000 | 22,000 | 22,000 | 22,000 | 22,000 | 110,000 | 88,000 | 96,800 | 106,480 | 117,128 | |
| Less: Depreciation | | 0 | 0 | 18,000 | 4,000 | 8,800 | 8,800 | 8,800 | 8,800 | 22,000 | 35,200 | 47,520 | 59,312 | 70,875 | |
| Stationery | | 3,500 | 700 | 700 | 700 | 770 | 770 | 770 | 770 | 5,600 | 3,080 | 847 | 932 | 1,025 | |
| Office Equipment | 5 | 30,000 | 0 | 20,000 | 0 | 25,000 | 25,000 | 25,000 | 25,000 | 50,000 | 100,000 | 110,000 | 121,000 | 133,100 | |
| Less: Depreciation | | 15,000 | 0 | 10,000 | 0 | 15,625 | 15,625 | 15,625 | 15,625 | 25,000 | 62,500 | 86,250 | 103,625 | 118,363 | |
| Phone & Internet | | 1,200 | 1,200 | 1,200 | 1,200 | 1,320 | 1,320 | 1,320 | 1,320 | 4,800 | 5,280 | 5,808 | 6,389 | 7,028 | |
| Legal Services | 6 | 0 | 0 | 0 | 0 | 15,000 | 15,000 | 15,000 | 15,000 | 0 | 60,000 | 66,000 | 72,600 | 79,860 | |
| Accounting Services | | 0 | 4,500 | 0 | 4,500 | 4,500 | 4,500 | 4,500 | 4,500 | 9,000 | 18,000 | 19,800 | 21,780 | 23,958 | |
| Trade Shows | 7 | 0 | 40,000 | 40,000 | 40,000 | 44,000 | 44,000 | 44,000 | 44,000 | 120,000 | 176,000 | 193,600 | 212,960 | 234,256 | |
| Travel Expenses | 8 | 2,600 | 2,600 | 2,600 | 2,600 | 2,860 | 2,860 | 2,860 | 2,860 | 10,400 | 11,440 | 12,584 | 13,842 | 15,227 | |
| Advertisement | | 20,000 | 30,000 | 20,000 | 30,000 | 22,000 | 33,000 | 22,000 | 33,000 | 100,000 | 110,000 | 121,000 | 133,100 | 146,410 | |
| Prototypes | 9 | 30,000 | 30,000 | 30,000 | 30,000 | 33,000 | 33,000 | 33,000 | 33,000 | 120,000 | 132,000 | 145,200 | 159,720 | 175,692 | |
| Less: Depreciation | | 6,000 | 6,000 | 6,000 | 6,000 | 11,400 | 11,400 | 11,400 | 11,400 | 24,000 | 45,600 | 65,520 | 84,360 | 102,626 | |
| Website Development | | 15,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 21,000 | 8,000 | 8,800 | 9,680 | 10,648 | |
| Operating Expenses | | 330,300 | 324,000 | 488,300 | 409,200 | 629,295 | 640,295 | 629,295 | 640,295 | 1,551,800 | 2,539,180 | 3,084,217 | 3,672,717 | 4,311,826 | |
| Income from Operations | | 309,700 | 416,000 | 411,700 | 400,800 | 940,705 | 1,159,705 | 1,550,705 | 1,339,705 | 1,538,200 | 4,990,820 | 14,975,783 | 17,999,283 | 21,694,574 | |
| Financial Revenues | 10 | 0 | 279 | 375 | 371 | 361 | 847 | 1,044 | 1,397 | 1,024 | 3,649 | 4,495 | 13,482 | 16,211 | |
| Financial Expenses | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Income Before tax | | 309,700 | 416,279 | 412,075 | 401,171 | 941,066 | 1,160,552 | 1,551,749 | 1,341,102 | 1,539,224 | 4,994,469 | 14,980,278 | 18,012,766 | 21,710,786 | |
| Taxes on Income | | 86,716 | 116,558 | 115,381 | 112,328 | 263,498 | 324,955 | 434,490 | 375,508 | 430,983 | 1,398,451 | 4,194,478 | 5,043,574 | 6,079,020 | |
| Net Income | | 222,984 | 299,721 | 296,694 | 288,843 | 677,568 | 835,597 | 1,117,260 | 965,593 | 1,108,241 | 3,596,018 | 10,785,800 | 12,969,191 | 15,631,766 | |

Notes

- The sales revenues are estimated based on our projections of our market share (number of customers), i.e. That each customer buys on average 1 unit yearly for an average price of 20,000 SEK
- Cost of goods sold is estimated at 50% of selling price on average
- In the first year, monthly salaries of 23,000 SEK per employee are paid to the three members of the management team. In year two we plan to add two employees with a monthly salary of 21,000 SEK and the third one in year 3, also with 21,000 SEK in monthly salaries. On top of that we assume a 10% yearly increase on salaries.
- We assume to start renting a space for our shop in Q3 of year 1
- Office equipment is mainly in the form of computers
- In the first year we plan to use the legal services provided by LU Innovation
- We plan to be visible at trade shows, like Stockholms furniture fair. We assume two shows per quarter at an average cost of 20,000 SEK per show.
- These expenses are mainly due to trips within Sweden, for example to search for future producers.
- We assume that we will produce three prototypes per quarter for an average cost of 10,000 SEK per unit
- We assume to put 50% of Net income on a short term bank account earning on average 1% interest

V b - Balance Sheet

| Assets | | Balance Brought Forward | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | |
|---------------------------|--------------------------------|-------------------------|----------------|------------------|------------------|-------------------|-------------------|-------------------|
| <i>Fixed Assets</i> | Office Equipment | 0 | 50,000 | 125,000 | 172,500 | 207,250 | 236,725 | |
| | Less: Accumulated Depreciation | | -25,000 | -62,500 | -86,250 | -103,625 | -118,363 | |
| | Shop Equipment | 0 | 110,000 | 176,000 | 237,600 | 296,560 | 354,376 | |
| | Less: Accumulated Depreciation | | -22,000 | -35,200 | -47,520 | -59,312 | -70,875 | |
| | Prototypes | 25,000 | 145,000 | 248,000 | 343,600 | 434,600 | 523,372 | |
| | Less: Accumulated Depreciation | 0 | -29,000 | -49,600 | -68,720 | -86,920 | -104,674 | |
| | <i>Physical Assets</i> | 25,000 | 229,000 | 401,700 | 551,210 | 688,553 | 820,561 | |
| Intangible Assets | 1 | 125,000 | 168,750 | 227,813 | 307,547 | 415,188 | 560,504 | |
| Total Fixed Assets | | 150,000 | 397,750 | 629,513 | 858,757 | 1,103,741 | 1,381,065 | |
| <i>Current Assets</i> | Cash | 25,000 | 270,371 | 614,738 | 3,364,402 | 13,552,114 | 25,841,508 | |
| | Short Term Placements | 2 | 0 | 554,121 | 1,798,009 | 5,392,900 | 6,484,596 | 7,815,883 |
| | Accounts Recievable | 3 | 0 | 1,236,000 | 3,012,000 | 7,224,000 | 8,668,800 | 10,402,560 |
| | <i>Debt Recievable</i> | | 0 | 1,236,000 | 3,012,000 | 7,224,000 | 8,668,800 | 10,402,560 |
| | Inventory | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total Current Assets | | 25,000 | 2,060,491 | 5,424,747 | 15,981,303 | 28,705,509 | 44,059,951 |
| | Total Assets | | 175,000 | 2,458,241 | 6,054,259 | 16,840,059 | 29,809,251 | 45,441,016 |

| Liabilities and Owners' Equity | | Balance Brought Forward | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | |
|--------------------------------|---|-------------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| <i>Owners' Equity</i> | Research Team | 5 | 90000 | 30000 | 30000 | 30000 | 30000 | |
| | Management Team | 6 | 45,000 | 15,000 | 15,000 | 15,000 | 15,000 | |
| | LU Innovation | 7 | 40,000 | 305,000 | 305,000 | 305,000 | 305,000 | |
| | External Investor | 8 | 0 | 1000000 | 1000000 | 1000000 | 1000000 | |
| | <i>Equity Capital</i> | | 175,000 | 1,350,000 | 1,350,000 | 1,350,000 | 1,350,000 | 1,350,000 |
| | Retained Earnings | | | 0 | 1,108,241 | 4,704,259 | 15,490,059 | 28,459,251 |
| | Net Income | | | 1,108,241 | 3,596,018 | 10,785,800 | 12,969,191 | 15,631,766 |
| Total Own Equity | | 175,000 | 2,458,241 | 6,054,259 | 16,840,059 | 29,809,251 | 45,441,016 | |
| <i>Current Liabilities</i> | Overdraft | | 0 | 0 | 0 | 0 | 0 | |
| | Bank Loan | | 0 | 0 | 0 | 0 | 0 | |
| | Other Long Term Debt | | 0 | 0 | 0 | 0 | 0 | |
| | <i>Long Term Liabilities</i> | | 0 | 0 | 0 | 0 | 0 | |
| | Accounts Payable | | 0 | 0 | 0 | 0 | 0 | |
| | Tax Debts | | 0 | 0 | 0 | 0 | 0 | |
| | Other Short Term Debt | | 0 | 0 | 0 | 0 | 0 | |
| | <i>Short Term Liabilities</i> | | 0 | 0 | 0 | 0 | 0 | |
| | Total Liabilities | | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total Liabilities and Owners' Equity | | 175,000 | 2,458,241 | 6,054,259 | 16,840,059 | 29,809,251 | 45,441,016 |

Notes

- 1 We assume that our research team has been working on the software for 500 hours and 100 SEK per hour. After year one we assume a 35% yearly increase in intangible assets
- 2 We assume to put 50% of Net income on a short term bank account
- 3 We assume that accounts recievable at 20% of sales revenues. Our business model seeks a two week period of payment after delivery
- 4 Due to the fact that each item is unique, we do not keep any inventory
- 5-7 The equity distribution is as follows: The research team: 60%, The management team: 30%, Lu Innovation: 10%
- 8 We will seek for an external investor for approximately 10% equity share, diluting shares proportionately

V c - Statement of Cash Flows

| | Year 1 | | | | Year 2 | | | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|-----------------------------------|----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | | | |
| <i>Operating Activities</i> | | | | | | | | | | | | | |
| Income from Operations | 309,700 | 416,000 | 411,700 | 400,800 | 940,705 | 1,159,705 | 1,550,705 | 1,339,705 | 1,538,200 | 4,990,820 | 14,975,783 | 17,999,283 | 21,694,574 |
| Depreciation | 21,000 | 6,000 | 34,000 | 10,000 | 35,825 | 35,825 | 35,825 | 35,825 | 71,000 | 143,300 | 199,290 | 247,297 | 291,864 |
| Change in Inventories | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Change in Accounts Payable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Change in Accounts Receivable | -256,000 | -40,000 | -64,000 | 36,000 | -304,000 | -92,000 | -152,000 | 80,000 | -324,000 | -372,000 | -4,212,000 | -1,444,800 | -1,733,760 |
| Change in Physical Assets | -77,000 | 39,000 | -172,000 | 104,000 | -91,650 | -35,825 | -35,825 | -35,825 | -106,000 | -120,650 | -348,000 | -384,000 | -423,360 |
| Total Operating Activities | -2,300 | 421,000 | 209,700 | 550,800 | 580,880 | 1,067,705 | 1,398,705 | 1,419,705 | 1,179,200 | 4,641,470 | 10,615,073 | 16,417,780 | 19,829,318 |
| <i>Financial Activities</i> | | | | | | | | | | | | | |
| Financial Revenues | 0 | 279 | 375 | 371 | 361 | 847 | 1,044 | 1,397 | 1,024 | 3,649 | 4,495 | 13,482 | 16,211 |
| Financial Expenses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tax on Net Income | -86,716 | -116,558 | -115,381 | -112,328 | -263,498 | -324,955 | -434,490 | -375,508 | -430,983 | -1,398,451 | -4,194,478 | -5,043,574 | -6,079,020 |
| Total Financial Activities | -86,716 | -116,279 | -115,006 | -111,957 | -263,137 | -324,108 | -433,445 | -374,112 | -429,959 | -1,394,802 | -4,189,983 | -5,030,092 | -6,062,809 |
| Net Cash Flow | -89,016 | 304,721 | 94,694 | 438,843 | 317,743 | 743,597 | 965,260 | 1,045,593 | 749,241 | 3,246,668 | 6,425,090 | 11,387,688 | 13,766,510 |

Financial Ratios

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|----------------------------|--------|--------|--------|--------|--------|
| Operating Margin | 50% | 66% | 83% | 83% | 83% |
| Profit Margin on Sales | 36% | 48% | 60% | 60% | 60% |
| Asset Turnover | 2.5 | 1.8 | 1.6 | 0.9 | 0.7 |
| Return on Assets | 125% | 117% | 131% | 77% | 58% |
| Return on Capital Employed | 36% | 165% | 155% | 100% | 70% |
| Return on Owners' Equity | 26% | 119% | 112% | 72% | 50% |

VI - Risk Analysis

| | Internal Risks | Probability (p) | Consequences (c) | p x c | Action |
|-------------------|---|-----------------|------------------|-------|---|
| <i>Technical</i> | Software Problems | 100% | 1 | 1,0 | Axel Nordin and in year 2 a programmer to be hired |
| | Software not Compatible with CNC-Machines | 10% | 8 | 0,8 | Axel Nordin and in year 2 a programmer to be hired |
| | Software Developer Departs | 20% | 9 | 1,8 | Add clause in agreement for software manual by May 31, 2011 |
| <i>Economical</i> | Insufficient Financing | 50% | 10 | 5,0 | Management forgoes wages, employs bootstrapping methods |
| <i>Staff</i> | Departure of a Management Member | 40% | 7 | 2,8 | Hire a replacement |
| | Lack of Time From Researchers | 30% | 7 | 2,1 | Hire programmer and designer |

| | External Risks | Probability (p) | Consequences (c) | p x c | Action |
|-------------------|-------------------------------|-----------------|------------------|-------|--|
| <i>Technical</i> | Competitors Copy our Idea | 20% | 8 | 1,6 | Develop product and add new features |
| <i>Economical</i> | Decrease in Disposable Income | 15% | 6 | 0,9 | Create products available to lower income people |
| | Loss of a Supplier | 40% | 9 | 3,6 | Diversify supply with reliable manufacturers |
| <i>Market</i> | New Entrants | 90% | 4 | 3,6 | Develop product and add new features |

Note: Probability: 0-100%, Consequenses 1-10



References

1. The domestic furniture market in Sweden, CBI market survey, October 2009. <www.cbi.eu>
2. "Inkomststatistik - Totalräknad." Statistiska Centralbyrån. Statistiska Centralbyrån, 21 jan 2010. Web. 21 Oct 2010. <<http://bit.ly/bVlgvk>>
3. Orsato, R. (2009). Sustainability Strategies: When Does it Pay to be Green? Houndmills, Basingstoke, UK: Palgrave Macmillan.



shape▼yard