Master of Fine Arts

Innovation through business, engineering and design, specialization in design.

Sand waves

*a stationary concept for the home office environment*
Abstract
Todays digitized society have open up for new types of office arrangements and possibilities of working from home in a higher extend. This thesis is based on the flexible working culture that is increasing, which means more personal responsibility regarding ergonomic and environment conditions as well as artifacts needed for a well equipped workplace outside the traditional office. Furniture dealers are having a new approach as open office hubs and home office environment are increasing with new needs. This project contains of a small investigation of which artifacts are needed and wanted from a customer perspective in the home environment due to these new behaviors.
This thesis will as well show the outcome and process of one product in a collection of 5 stationary objects, from a conceptual design thinking with a furniture company as a case. The name of the project is as well the name of the collection.

This project consists of two main objectives, customer orientation and product development. In terms of costumer orientation the goal is to find out who the customer is, their needs and satisfy their major priorities.
During the process an extra investigation have been made within the company regarding the customer experience. A journey map have been made and highlighted for future development. These findings will not be presented fully with any outcome in this thesis, they will only be shared with the case company.

Keywords
flexible workplace, home office, customer orientation, product design, conceptual design, stationary, desktop accessories

Thanks
A big thank you to Kristian Eriksson at G.A.D who opened up for this opportunity and who have made me feel very welcome from the very first day. In extension a special thanks to Emilia Corrigan at G.A.D for believing in me and always helping out. Its been a privilege to get to know everyone at the company.

I would like to express my sincere gratitude to my tutor, Anders Bergstöm, manager at Volvo for support and guidance in confusing moments. Your expertise is insipiring, highly valuble and always an eye opener. Finally, a special thanks to Miguel Salinas at Linneas University who have, during my five years of study in Fine Arts, always been there for extraordinary tutoring and support. Thanks to you, I have progressed enormously as a designer.
5.3 Manufacturing ................................................................. 39
5.5 Outcome ........................................................................ 40

...................................................................................... 41
5.5 Proof of content ............................................................... 42

6. Discussion and summery .................................................. 43

7. References .......................................................................... 45
   Books ............................................................................. 45
   Articles ........................................................................... 45
   Reports .......................................................................... 45
   Other ............................................................................... 45
   Pictures .......................................................................... I

Appendices ........................................................................... II
   Appendix A, G.A.D Details .................................................. III
   Appendix B, Collage State of Art 1 ......................................... IV
   Appendix C, Collage State of Art 2 ......................................... V
   Appendix D, Using Customer Journey Map to improve Customer experience .......... VI
   Appendix C, All 5 designed artifacts for stationary collection Sand Waves ............ IX
Outline

This project is multiplex as two areas are researched. This outline show what each chapter will contain. The structure is as followed:

Chapter 1
Area of research, brief introduction with objectives, the case company and problematic issues. The first chapter also explains both delimitations and goals in terms of design focus and sustainable perspectives.

Chapter 2
In this chapter I will define and describe the different layers of an office environment today, from a traditional office to a more developed flexible workplace culture due to the increase of technology in our society. As well show examples of what the furniture and office market look like today and what Stationary consist of.

Chapter 3
For data collection different methods such as literature, interviews and a survey are conducted for fresh data and will be explained in more dept. In terms of design methods, the concept will be presented through a moodboard and further my primary methods sketching/prototyping will be presented.

Chapter 4
Empirical findings from my interviews and the result from the survey are explained in depth. The customer is identified and different units that will be designed are highlighted. The brief was finally set here for product design. Breifly this chapter brings up some of the findigs regarding the current customer experience as well.

Chapter 5
In this chapter the overall design process is highlighted from concept to result. Likewise materials and manufacturing proposals.

Chapter 6
The last chapter contains of a summary of my project. An overall discussion around some of my findigs and my result. I will as well explain my future work.
Mini dictionary

Customer - those who use, are undergoing or experiencing G.A.Ds services/products

Customer needs - the needs the customers have based on customer insight

Customer orientation - meaning that the business is based on customers wishes and requirements

Touchpoint - a meeting point between company and customer, regardless of the channel

Customer experience - a customers feelings toward touch-points during the journey

Customer journey - customers whole activity of used service. Before, during and after stages

Customer Service - where a customers communicate with G.A.D through phone or by email

G.A.D - Furniture company, Gute Art and Design

G.A.D Details - a series of smaller products made with the same care, quality and materials as all other furniture in the assortment

Retailer - 35 stores (in Europe, mostly Sweden) that sells furniture from G.A.D and other brands by sellers who are employed by each retailer, not G.A.D.

Stationary – office supplies for the desktop

Showroom - G.A.Ds own store, one in Stockholm and one in Visby
Introduction
Workplaces are changing. Today's digitized society has opened up for new types of office arrangements and possibilities of working from home in a higher extent. The era of analog tools to maintain work are decreasing as people are working more digital. Furniture dealers are thereby having a new approach as open office hubs and home office environment are increasing with new needs. The product range is changed, not only furniture arrangement but smaller products are developed to support their new behaviors. Working more from home means more personal responsibility in the home environment, regarding ergonomic conditions and artifacts needed for a well-equipped workplace. As the researcher I will investigate in what artifacts is needed and wanted at the home environment due to this new behavior.

The project contains a collection of products for the home office environment in collaboration with a high price company. In this paper the design process of only one product will be shown. The inspiration to the collection is taken from the natural elements of Gotland, reflected in the products as the results. The name of the collection is as well the name of the thesis, Sand waves.
This thesis is also targeting the high price company's end customer, the intention was to investigate both who their customer is and the customers journey. This thesis will not highlight where loopholes and difficulties can be improved for a better customer experience in depth, even though this is investigated, these findings will only be shared fully with the company. This thesis will focus on:
- customers (customer orientation)
- products for the home office environment

1.1 Project description and presentation of result
In this thesis the author has been given a brief by a small/medium-size furniture company called G.A.D (Gute Art and Design) located on the Swedish Island, Gotland. A high price furniture company with 20 years experience owned by designer Kristian Eriksson who is the CEO of the company. This is a project participated from employees at G.A.D and as well current customers of G.A.D.
In 2015/2016 the "G.A.D Details" series was launched and contains of 22 smaller artifacts for the home environment. See appendix A, for G.A.D Details series product catalog. Garda, a foldable and mobile desk with good reviews developed for "details series". The brief given mainly contains of develop and design smaller stationary/desktop accessories for desktop Garda as an extension. After a first meeting with the company other needs occurred, one being figuring out who their customer is and as well what the current customer journey looks like.

Pic 1. Garda, Design Kristian Eriksson
As the author of this thesis with a bachelor in Furniture and Product design and a Master in Innovation through Business, Engineering and Design (working in multidisciplinary teams with product development, often in collaboration with companies) have given a wide range of content from different disciplines in my education. This way of working have guided and opened up for possibilities as a designer being more involved in Design management, Design strategy, processes and implementations. This thesis is in collaboration with G.A.D, yet with a specialization in design. My role as the author and designer with a strong personal background to Gotland may influence the outcome of this collaboration. There are no previous collaboration history between us which means I know very little about the company in advance, other then knowing OF the company, purely from a designer perspective with a furniture interest.

During this project 5 artifacts have been designed for G.A.Ds details series in a collection called Sand waves. The strategy have been to find a concept and a language that fit both current and a potential younger customer. The overall changing working environment have been research in this project, the company have been scanned in terms of how they work and their market position from competitors have been mapped. Product and concept design are the main focus but service design methods such as creating Personas and Costumer Journey Mapping have been investigated and developed to.

1.2 Company background

G.A.D is producing classic and minimalist stripped furniture primarily for the private sector in materials of solid birch, oak, limestone and granite. It is a craftsmanship made by hand by well trained carpenters. Besides materials like wood and stone, there are materials selected with inspiration from Gotland in leather, sheepskin and wool fabric. The furniture assortment includes artifacts such as sofas, dining tables, chairs, cabinets, shelves and desks. All named after Gotland-inspired parish names.

All furniture are customized by each customer and each piece of furniture has a responsible carpenter that guarantees quality and approves the furniture by signing it with numbers, names and dates. G.A.D has thoughts of investing in new machinery for higher efficiency, as a piece of furniture today has a delivery of 8 weeks. The company is in the higher price range in comparison with mass-produced furniture held in stock. G.A.D has retain their particular style with a clear vision of high quality, sustainable solid materials, with a timeless idiom. What distinguish G.A.D from many other companies is the possibility for customization and their way of working with natural materials such as limestone in table tops. When it comes to good quality G.A.D defines it as ”furnitures made to last for generations”. At the same time, it should be manageable to produce in a set time frame.

Now 2017, G.A.D wants to head into a market with smaller product for the home office environment, like other furniture companies such as HAY, EFG, Abstracta and String already have done. The primary idea of opening up for smaller products in the ”Details”
collection 2015/2016 was to have a constant entry point for customers. Since the company know that “once you buy from G.A.D you want more”. New costumers with less money in their pocket but who still wants good design are thereby a great end customer to target.

G.A.D Details are produced in a higher volume, held in stock and are thereby possible to purchase directly in showrooms or thru the online store. Other goals are to increase sales with 30 % and maintain a strong position as a high-grade company in the furniture and design business.

As stated earlier under *Project description* G.A.D have had some thoughts of *who* their customer are and *why* they choose G.A.D furniture and not their competitors. G.A.D are not quite sure in which age category their customer are but by their higher price range the company assume the costumers are middle age, have a higher salary and wants better quality that can be inherited.

To get an understanding of G.A.Ds competitors and identifying the market in Scandinavia and Sweden, a market position due to appearance and form have been made (*see collage, State of art 1*). To deepen the market position further one collage are made around desktop products. (*see collage, State of Art, 2*) This two collages serves as a guideline, they help to complete the picture and as well creates a scale of how and where G.A.D operates towards today.

*Pic 2, State of Art 1. Scandinavian competitors due to appearance and price*
1.3 Project set-up, objectives and aim

As stated earlier this project is divide in two areas:

- customers (customer orientation)
- products for the home office environment

The first initial idea was to only focus on G.A.D Details. A series of smaller products with same high quality as there furniture collection. The brief contains work with a focus on desk Garda, to design new desktop products for the home office environment. The second idea appeared after a first meeting with the company, when asking who their costumer is. Important information to have when working as a designer. Thereby two areas of research questions are created.

The first research questions targeting, Customers (customer orientation)

- Who are G.A.Ds customers today?

The second research question target products for the home office environment:

- How can I meet customer needs by G.A.D products? Which products are worth investing in for the flexible, sustainable and functional workplaces for the home office, yet fit the home environment for current and potential G.A.D customers? What concept could work and what are the needs around the home office due to work and living situation?

One of the first objectives is to understand the market and identify the customer due to lack of knowledge at the moment from the company. My aim is to understand the company, its contexts from the business its in and wants to grow into.
In this thesis I will as well get the knowledge of customer experience, how the customer journey looks like today and in extension make suggestions on how it can be improved for better efficiencies in the future. It is necessary to look over it if any increase in sales wants to be implemented. I want to underline that the customer experience and journey map not will be described in depth in this thesis as these findings only will be shared with the company (see appendix D for further description and the general outcome).

The second objective are from a designers perspective, how and where design can successfully contribute to different business units. Turning the design problem/design opportunity into a design solution to meet new potential customers but still targeting current customers, by visually and experientially express the values and beliefs of this organisation. By new well designed artifacts for the home office environment thru a design concept.

The third objective is can a customer perspective evaluate a good strategy for G.A.Ds future? Both internal and external demands, company goals, customer requirements to social and environmental responsibilities all needs to be taking into account in a piece of furniture and in the management of a successful company. Some of these aspects are well invested in from the company side but in order to maximize time, money and resources to present itself favorably to the market a holistic perspective means system thinking and involving end-users in the process. That the entire system are designed from, not only business, design and technology with a sustainable approach but from other perspectives as well such as from a customer view to identify real needs or customer requests.

Below, an illustrated overview of how the different parts in the project are connected.
1.4 Problem discussion

The initial problem in this thesis are having two big research questions. The area of this thesis are targeting the overall changing working environment and the need of a office environment at home. The living situation and need for a home office may vary for people due to work situation, income, age, and location in Sweden. However, this project don't have the intension to investigate a persons living situation, being aware of different office arrangements and different needs/preference related to work and income, age, space at home are necessary for any depth in the project. The purpose is to investigate relationship of artifacts needed in the digital society for job satisfaction at home. A segments of desk artifact should thereby fit G.A.Ds customers, which leads me to have a good understanding of the target group/customer. There are many parts overall to investigate in which is necessary but time consuming.

Being located in Växjö due to facilities and tutoring session and the company in Visby/Hemse may create some gaps of communication. When the researcher not are located at the office or production site at Gotland the main communication will be thru email. Working with a company as a case may be difficult sometimes due to transparency. Being a student getting a true understanding of all issues or needs within the company are not likely to be feasible at all levels due to the geographical distances. As often as possible the researcher have been located at the office during the project.

1.5 Delimitation

The main focus will be around Garda. The desk consists of three ribbed parts that can be taken apart with a loos desktop. Two sides and a back panel in wood, with a
female/male-hook function. A reversible desktop in solid wood with one laminate side in white or light gray. The simple desk also offers various working heights. The aim is to design products as an extension to the desk. The delimitation in this thesis will be to only show one products progress and end result. 5 stationary/desktop accessories have be designed but only one will be fully explained under chapter 5 due to the tight set time-frame and to not make this thesis too big.

This thesis are not targeting the area of packaging of the designed products as the company have a functional yet simple and uncluttered packaging design. Today their traditional brown cardboard packaging stands for not being wasteful with endless of packaging. In combination with two rough stamps, G.A.D and Made in Sweden on the cardboard box, doesn’t give the overall feeling of a expensive product however, it gives a sense of it being handmade. As a whole I find it a little bit too easy, but this project is not about that matter/issue at this moment.

Pic 5. Details packaging, showroom in Visby 2016

1.6 Design and sustainability
G.A.D have value words such as sustainability, solid materials and timeless idiom. In extension a cultural sustainability can be pinpointed as the company are using the Island as marketing, mostly with local production and a small scale thinking in terms of service, order processing to delivery. To maintain the exclusivity these choices are well picked as it fits the situation today. G.A.D are producing each piece of furniture after an order is made, which means no mass production and no high cost of furniture storage. However, the company have expanded the site in Hemse with access to more space for Details series. Next door the company now have access to vacant premises and the extra space will initial work as storage and packaging for details series as these items are made in a higher volume and needs to be storage somewhere.

Packaging are as well sustainable with unbleached cartons, which are folded and packed into place on the premises after production. The inside are filled with waste material from other deliveries to the production site, this way of reusing material for protection of products are working well and is something G.A.D are proud of as they want to be as sustainable as possible.
The sustainable aim in this project will be to meet current processes as far as possible, from local production, values and as well the same high quality. Furniture and products made to last for generations. The contextual field of products will be for people with a high sense of sustainable thinking.

As we probably don't have to develop more stationary/desktop accessories due to current speed of changing trends and overproduction of artifacts already, the relation to environmental issues are highly important. Thereby these products for G.A.D needs to withstand the eye and many years of use due to high quality.

From a business approach, the collection Sand waves (showed in chapter 5) will hopefully contribute to awareness of G.A.Ds Details series as a whole. The company vision is to increase sales and during the phase of development one strategy could be to offer a free gift from the collection when purchasing a desk. This could, instead of increase sales first hand, strengthen the customer culture and the company. From a designer perspective the sustainable thinking are by focusing on customer orientation to minimize unwished products.
2. Theoretical framework

The purpose of this chapter is to provide an overview of research conducted as the case company wants to develop stationary products for the home office. I will define and describe the different layers of an office environment today from a traditional office to a more developed flexible workplace culture due to the increase of technology in our society. I will as well show exampels of my research regarding the market and what Stationary consist of. And as well pinpoint customer orientation. Research related to previous objectives:

- understand the market and identify the customer
- how and where design can successfully contribute to different business units
- can a customer perspective evaluate a good strategy for G.A.Ds future

2.1 Swedish furniture industry

Swedes are a furniture-loving people. Quality, design and innovative solutions, along with sustainable manufacturing has made Sweden into one of Europe's strongest furniture countries with an industry appreciated and loved far beyond our borders. Furniture has become a successful Swedish exporter found in homes and public buildings throughout the world. A survey commissioned by TMF evaluate Swedish furniture industry in comparison with other EU countries and shows that in terms of consumption per capita, Swedes buy after Austria, most furniture of all EU countries. According to Statistics Sweden SCB the total production of furniture in Sweden is estimated to 22.8 billion SEK during 2016. Exports 15.9 billion SEK and imports 16.6 billion SEK in 2016.¹ Not only are Swedes furniture interest related to a home environment, it is equally important at work.

![Exports by country](image)

![Imports by country](image)

Pic 6. Swedish furniture import and export 2016. Source;Statistic Sweden/Svandata/TMF

2.2 Sweden's changing office environment

In Sweden, nearly two million people are working in an office environment. It has been an increasing trend the last few years by big office furniture companies to make smaller artifacts for the public office environment to create a stronger customer by offer, not

¹ TMF, Furniture Sweden Annual Statistics 2017 (2016)
only furniture, but small accessories. However these furniture companies are often targeting public spaces where larger volumes of products are made, held in stock and sold. According to Kinnarps trend report, the office furniture market is undergoing a big change. In the report, Kinnarps states that employees no longer have only 9-5 standard working contracts as an increase in other working forms have been seen. For instance there has been an increase of freelance work, project work, and consultancy work and 17 percent of total workforce working from home.\(^2\) People are also working more from home due to VOB-days (home care of sick children) and the possibility of using technology to work at the same time, according to a Novus inquiry commissioned by the union Unionen.\(^3\)

### 2.2.1 Working outside the traditional office - alternative workplaces

The digitalization is going on at a furious pace and affects all parts of our society. As we become more mobile some researchers believe that the need for a traditional office space will decrease and many buildings therefore will be standing empty. More flexible workplaces will occur due to more professionals will have their choice of how and where to work. According to Kinnarps trend report it seems that different kinds of pop-up offices is here to stay and coworking areas are increasing. One example is seen in traditionally public spaces such as cafes for coffee/lunch are turned into fully equipped rooms for work. Not only free wifi are offered but also private secluded rooms to rent.\(^4\) Also pop-up offices like ”rent a desk” are increasing globally, often these places are noticed by private individuals and then utilized by the market. Renting a desk halftime or per month can provide both colleagues with different skills and create an atmosphere of professional business. What distinguishes these new offices are the cost. Unlike an employee at a traditional office a freelancer/consultant has to pay from 2000 sek and up per month, depending on location and facilities for being in a working environment. Beyond the traditional offices there are option of freelance office collectives, coworking spaces, science parks, lounge & hotell offices and the newest trend, hoffice.\(^5\) A concept born in Stockholm which simply means inviting people in your neighborhood to your home environment, a pop-up office in someone’s home without a fee. According to office researcher and architect Bodin Danielsson at KTH, it is likely that more professionals in the future will have the choice of flexible workplaces which we today only associate with researchers, freelance journalist, photographers etc.\(^6\) The report Kontorsfrihet shows that every other person (50%) wish they could work more flexibly than they do today. Women feel the need more then men, 51 percent compared to 45 percent. And its the younger working generation who wants to work more flexible then they do today. 30-39 year olds (55%), closely followed by 18-29 year olds (53%). Least interested are people in the age category of 50-65 year olds (37%). The main reasons to work more flexible are having self control over working hours and to

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\(^3\) TT, Svenska Dagbladet, Allt här väljer att ”vobba” (2017)  
\(^4\) Kinnarps trend report (2015) page 55  
\(^5\) Vad är Hoffice? http://hoffice.nu/sv/vad-er-hoffice/  
\(^6\) Danielsson, Bodin, Christina (2014) "Vad är ett bra kontor? Olika perspektiv på Sveriges vanligaste arbetsplats." Exakta, Malmö page 88
combine work and private life (64%). The second most common reason is that increased flexibility would provide a greater sense of freedom (45%). Almost as many (40%) says that they would feel less stressed.\(^7\)

### 2.2.2 The increasing flexible work culture

Hundreds of offices in Sweden today encourages its employees to work from home, for reduced environmental impact, increased productivity, and quality of life. As well studies show that working from home are more efficient, generate lower sick leave and lower staff turnover. According data from Statistics SCB in Sweden, 51 percent of Swedish companies have employees who work from home, an overall radical increase the recent ten years\(^8\). In the latest research from Sifo and Telenor 65 percent of the managers welcome employees to have free control over their own working hours and 49 percent welcome employees to work outside the office.\(^9\) The report also shows that four out of ten managers at the same time are questioning the performance and productivity of employees working outside the office.\(^10\)

According to a study by Kairos Future, a majority of Swedes wants the opportunity to work from home, but not more than two days a week. The main reason of working at home is said by the majority to be more efficient. According Mats Lindberg at Kairos Future it does not matter that we can Skype, chat and communicate over internet, eventually it becomes isolating working from home. He means that face to face is still very important as well as the small talk with our colleagues at the office.\(^11\)

Researchers at the Work, Technology and Social Change center from University of Lund operates the project "Ska du gå hem redan?" their research are underway but some public results shows an increase in productivity due to employees energetic efforts to justify the opportunity to work from home.\(^12\) However, it doesn't show if the energetic mood changes over a longer period when being comfortable in the role of working from home. Professor Ravi Gajendjan from University of Illinois have also done research that examine the telecommuters situation and his conclusions are the same. There are great advantages to allowing staff to work from home due to increases of productivity. Gajendjan also pinpoint that working at home can differ markedly in experience, depending on the employer's IT solutions and company support. Less effective IT solutions and support for safe and secure work outside the traditional office can affect negatively. As with most things there are both advantages and disadvantages, some people experience more stress, hassle or inefficiency working from home and other characterized it by efficiency, calmness and focus.\(^13\)

Ones a year many big companies in Sweden shuts down their offices with the aim to work from home. One example is Microsoft Sweden, they want to manifest benefits of a more flexible approach to work. Seven out of ten Swedes at an office claims to work more effectively from home. Overall researched benefits are more free time, flexibility-

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\(^7\) Kontorsfrihet (2016) page. 4

\(^8\) Olsson, Anghel, (2015)"Idag jobbar vi hemifrån." Article published 5 May 2015

\(^9\) Kontorsfrihet (2016) page. 8

\(^10\) Kontorsfrihet (2016) page. 3

\(^11\) Mats Lindberg(2014) "Fler får jobba hemifrån." Sveriges Radio, 26 Mars

\(^12\) Ny studie om arbetstid: "Ska du redan gå hem?" Lund University, News and press, May 2015

possibility of working at any time of the day, no time spent for traveling, easier to work in peace, no distraction by colleagues and less stress.  

2.3 Work environment necessities

The basic rules of work environment conditions applies regardless of where work is done, this means that the employer has the main responsibility for the work environment. Beyond that there is no special rules if work are being done eg. at home. The employee must participate in creating good working conditions and also take responsibility, including by paying attention to and report risks at home. The general advice by AFS 2001: 1 Definition of systematic work emphasizes that it is particularly important that the employee has an understanding of all the risks in places, due to the employer has no control outside the traditional office. Employees are responsible for safety, light, air condition etc. The employer should ensure that good working conditions, equipment etc. used are reaching standard and provide adequate security. What actual measures with good working conditions at home must be assessed case by case, depending on the nature of work, how often you work from home, for how long and what equipment is used.  

Working from home can have some negative factors due to lack of space compared to a traditional workplace, the space at home might be too small to accommodate a functional and ergonomic workspace such as lack of good posture and light. Poorer working environment from a sofa or a bed are often comfortable but highly negative for the posture. Long periods of work needs to be organize for the better than e.g a wooden chair, kitchen table and a laptop. It is the employer's responsibility to ensure that the working environment is healthy, functional and maintain all important necessities when working from home.

2.3.1 Stationary

Whether working in a quiet office, sitting in the buzzing heart of an open plan hub or at home, personalizing a space or desk is triggering. Stationary, accessories and gadgets can turn a boring, uninspiring space that saps productivity into a place of happiness and inspiration. When taking about stationary the general term are office supplies. The range of items classified as office supplies varies, typical it includes small daily used items, consumable products, smaller machines, but as well computers and office furnitures. As stated earlier, big furniture companies (See Appendix Collage, State of art 2) have started to make stationary/accessories in a bigger extend. Mirrors, hangers, rulers, pencil boxes, hooks, smaller shelves and storage, sound absorbers and other kinds of decoration. Below an example of other stationary items found online in different materials.


15 Arbetsmiljöverket, Systematisk Arbetsmiljöarbete (Last Modified, 2008) page 8-13
Pic 7. Collage of stationary examples in different materials and prices found online.
2.4 Customer orientation

Customer orientation meaning that the business is based on customers wishes and requirements. As people continue to find increasing choices in the marketplace and become more determined to improve the quality of their lives, they will demand more good design/services. Effective management can provide design with a good outcome if knowledge of the market and the customer is set. A customer are those who purchase, use, are undergoing or experiencing a services.\textsuperscript{16} According to Kohlin & Jaworski one main well established modell in customer orientation is to collect relevant information about the customer. To identify the customer, who they are, what they need and their willingness to pay for different products and services.\textsuperscript{17} And in extension to satisfy customers major priorities. It is necessary to identify this, not only in this particulate project as a new set of products will be developed, but as well from a customer experience and journey mapping segment. Established habits and action patterns within the company are lively and can be difficult to see and break from inside.

3. Methodology

The broad aim is to identify the customer, generate ideas and in the end develop products. Certain methods are therefore crucial in order to gain knowledge. The first step was to develop a general plan with schedule on what to research, framing for gathering, sorting and reviewing information of the context, how it will be accomplished and how to meet set deliverables.

As a refreshment, my two research questions are stated again as an explaining of my methodology approach will be defined below.

- **Who are G.A.Ds customers today?**
- **How can I meet Customer-needs by G.A.D products?** Which products are worth investing in for the flexible, sustainable and functional workplaces, yet fit the home environment for G.A.D customers? What concept could work and what are the needs around the home office due to work and living situation?

3.1 Types of data

Secondary research deals with quantitative and qualitative data. Furthermore, internal and external data. Internal data exist within the company while external derive from other sources, such as publications, libraries etc. outside the company. The project research concern both internal and external secondary data, external data involves collecting information from literature in books and from different databases in Linnaeus University's library.

Primary source of data refer to research that has been completed specifically for this project by the researcher. Conducting primary research is necessary in order to meet

\textsuperscript{16} Ewerma, Daniel (2015) Kundupplevelse, page. 152
\textsuperscript{17} Kohli & Jaworski, (1990) Market Orientation: The construct, Research Proposition and Managerial implications, page. 1-18
current objectives. An example on primary data in this project are survey questions and a continuous dialogue with the case company to gain knowledge of the real life context.

3.1.1 Secondary research, Literature
Literature can tell the researcher what has been done before within certain boundaries. In my case, secondary research is valuable as a method to get a better and deeper understanding of the topics background, the different layers of an office environment. Taking advantage of books, internet, previous reports and other relevant information to collect, analyze and make use of as in-depth knowledge. Secondary research can not replace primary research, they are both highly necessary to manage making any conclusions in the end.

3.2 Research strategy for data collection, in terms of a customer experience
To examine a customer experience, identifying touch-points, find and collect relevant data about the customer and their feelings, data is gathered from internal interviews by employees at the furniture company, external interview and a online survey.

![Customer Journey Map](#)

*Pic 8. Project Set-up. Customer, Journey map to Outcome*

3.2.2 Ethical issues
Before conducting internal and external interviews and sending out any survey some very important ethical issues should be highlighted and understood from both parts. There are three main ethical issues considered in my research project in terms of data collection.

- The topic was explained to all participants in advance and they were told to participate voluntary.
• All participants were informed there were participating in a student research project and not on behalf of the company. All findings of the research are used for the purpose of this thesis and later as an extension for G.A.Ds future development.
• There have been a close communication between researcher and the company, which means the company have been involved in what to published public or not, in this paper.

3.2.2 Survey
According to Kathryn Best, a designed survey or questionnaire provide customer-satisfaction as it is a platform for the customers voice, and it supply vital information on how a product or service could be improved.\(^{18}\) A cheap instrument for collecting data is making a online survey. However, composing a good questioner is not easy, there are many things to reflect on and take into account as the respondents easily can get bored and not complete the full questionnaire due to the questions.
Before starting creating questions, I researched strategies on how to formulate questions, where questions should appear for sequence and flow due to not intimidate any respondents, when and how to send the survey and so on, to avoid lack of interest or engagement by the responder.
Even though the company are highly interested in the results, making a survey is by my initiative to get fresh information and feedback about the costumer. I want to understand the real view of who the costumer are, how they perceive the company and what artifacts they want G.A.D to expand their assortment with. In the survey the respondents have the opportunities to share opinions, it was voluntary and anonymous to participate. The results are used as basis for this project and is as well support for G.A.Ds future development.
One benefit of a online questionnaire is the respondent's opportunity to choose the time that is best suited to answer for them. The survey is called "Help us prioritize” and contains of 35 questions, divided in three categories: G.A.D, Customer journey and Persona.

Questionnaire design
The survey was made in Swedish and starts with two simple questions aimed to build confidence by asking the correspondence if they perceived themselves as customers of the company and whats most important when buying furniture and interior. According to Christer Johansson, respondents are usually not motivated to respond to a number of private details about himself in the early stage until the purpose for the questionnaire are reviled.\(^{19}\) Issues related to age, gender and consumption habits was thereby asked in the end of the survey as background questions can be scary to respond to in a early phase. This reason made me choose to end the questionnaire with these questions as it seems

\(^{18}\) Kathryn, Best (2015) Design Management page.38
\(^{19}\) Johansson, Christer (2012) Marknadsföringsundersökning på riktigt? page. 100
more logical that the respondents is more open to share this information when they know all the questions and feel comfortable with their answers. In the survey, Other is added in many of the questions as response may want to expressed themselves. Similarly, "I don't know" is added as response may not feel compelled to respond or actually don't know. Also I tried to stick to the same type of response scale throughout the questionnaire, either click in the ready-made answers, or by answer questions with a text in the comment box for feedback.

**Questionnaire administration**

The questioner was self-administered and send out by email to current customers by email on the 30th of March and collected 5th of April 2017. The survey was compiled by the researcher and as well shared to the company when data was understood and evaluated.

### 3.2.2 Internal workshop with G.A.D

To make sure all findings thru out the process would be fully understood and not rejected by the company a co-creation workshop with Kristian and Emilia at G.A.Ds office in Visby was conducted, about the current customer journey experience. How they think the customer interact with the company today, where needs, feelings and confusions may occur. We sat down 4 weeks in the project with pens, post-it notes and 3 sheets (Before, Under and After stages) and created a timeline together with touch-pions. The workshop lasted one hour and gave a good overview from both sides. Our findings was then illustrated and design by the researcher into a compiled overview, used only by the researcher to compare with customers timeline later on. During this one hour session we only had a discussion around the customer and not about future products for the home office environment, as they have given me the freedom to investigate that area on my own.

### 3.2.3 Internal interview with Customer Service at G.A.D

Interview is a great method in order to get first hand information related to perspectives, experience, attitudes and opinions. To not only find clear and obvious touch-points (which will give inaccurate data without depth) a interview with Customer Service was conducted due to get information about customer complains/or where customer feel they need help in different stages of the process. The interview took approximately 2 hours and was conducted on G.A.Ds production site in Hemse. Customer Service consists of one person who have been working in the company sense 2003. The interview was semi-structured as the loose structure helped to get background facts and information of both her and customer opinions and perspectives. The interview gave in-depth data about how different all customers behave and where status and knowledge is needed in different stages. All these findings was added to the timeline from the earlier workshop with Emilia and Kristian.
3.2.4 External interview

A one-to-one interview provides an in-depth understanding of the customer’s experience and is often more reveling of their true feelings towards a product and service. An interview are one of the advantages to both parties as uncertainty can be clarified. Another advantage is that a interviewer can read between the lines and add information that can enrich the conversation and give feedback with quality.

One face to face interview was conducted in Visby, all questions asked was an extension from the survey, comprised from 35 to approximately 10 questions. The probability of misunderstanding a question was reduced greatly as there were many cases of brief discussions of each question between the respondents and the researcher, and the response reflections was more freely and storytelling. Different from the survey, questions was more in-depth on how the overall experience have been, how she perceive the company and her purchasing habits. The interview took approximately one hour and gave as well insight about her workplace situation at home and what her needs are regarding furniture and interior.

3.3 Design methods for product design

All design communicate a visual message. It’s the combination of design elements, such as color or shape, aesthetics and interactions that clarify the brand. The message has to be “right” for its target group and market segment. Certain methods are thereby used in the process of product development. To understand the market from competitors and product range on the market different State of art boards was made with pictures, a visual and easy method for sharing insights and to communicate with both the company and tutors involved.

3.3.1 Conceptual design

There are no prescribed way to identify opportunities for design units within any company, instead it is the goals and aspiration of the company, its corporate vision and purpose, its brand identity and values that will suggest what opportunities are right to lean against. Basically, conceptual design is the very first stage of the product design process, where drawings and other illustrations or models are used. Conceptual design defines both the aesthetics and functionality of the products. Endless possibilities to meet visions that should appeal to the costumer. It’s grounded in more abstract thinking until a detailed design is ready to be created. Making use of concept design for number of ideas/objects to relate to in a certain domain provides me as designer with a better understanding of opportunities available in the design process.

Visuals, textures, colors, pattern and shapes help to present the lifestyle of a specific target group. For any design-led approach in this project that best would serve G.A.D is to reflect the identity, make use of their value words and beliefs and in extend, translates it into business objects. My own relation to Gotland have helped greatly to identify the concept in this project.
3.3.1.1 Conceptual design thru moodboard, Sand waves

Moodboards are a visual method to create a feeling of the product outcome, communicate by pictures in addition to words. In this project I have had a focus on nature as furniture from G.A.D have a barren expressions and are using nature as a marketing segment. To soften the idiom, element such as sand and water are used as inspiration. Sand and water waves both create an organic pattern and are very hard to illustrate in real life.

Working with a moodboard are advantageous as it provides me to keep focus by having a base to work from or come back to if anything goes wrong during the design process. This moodboard below was created early in the project and is the main inspiration during the whole design process from form to colors.

![Moodboard, sand wave collage](image_url)

*Pic 9. Moodbard, sand wave collage*
3.3.2 Sketching / Prototyping
The stage of sketching with pen and paper in an early stage is a good method to test both two and three dimension visualizations. Sketches often provides what words can't express, ideas are easily developed during the process as many senses are engage at the same time. Measurements, movement and functions are as well more easily to develop further in a higher tempo. As natural elements are hard to illustrate, modeling with clay as form studies was necessary to have in the initial stage to investigate unregular forms and shapes. All products in the collection are further design in CAD for a more correct three demential feeling and understanding.

The process of making a collection with prototypes of all product in a set time will be stressful. My tutor Anders Bergström gave guidens to only focus on one product fully and keep the other products on a sketchy-level.
As many tings are underway during a master thesis project, not only a design process but as well a report to maintain, the finish prototyping was distributed to a man in Tibro (Thorleif Aiff) who have a profession in wood sculpturing. The communication between us was thru phone and by email, my concept was described in both words and thru pictures, likewise my drawings was shared with measurements and materials description. Thorleif will make two prototypes in different sizes and I will on my own make the one prototype in the University workshop.

4. Empirical findings
4.1 Data collection outcome in terms of customer experience
Internal interviews with G.A.D and one external interviews was conducted. The survey allowed me to get 173 responses from customers.

4.1.1 Internal workshop
The workshop with G.A.D lasted one hour and gave a good overview, some loopholes was found that may be confusing or unclear, one being in the process from purchasing to delivery. G.A.D think the customer may feel unclarity as the customer doesn't here anything for 6-8 weeks during the process of making, and Kristian and Emilia can imagine many calls are made to Customer Service to get feedback on status even though customers have got a estimated delivery date. As there is no provided service today on order status when login in on the website or any other kinds of notifications sent out by email or thru text message this unclarity are appearing when a customers often wants to follow the process.
Kristian and Emilia started to discuss this issue and was quick on finding solutions on how to solv this with improvement, one being by adding a What happened now note to the order confirmation in the store. This may work out well in showrooms in Visby and Stockholm but in other retailers around Sweden this way may not be sustainable as it will be harder to follow up on due to variety of sellers and different ways of working in all 35 retailers (both store and online) around in Sweden.
4.1.2 Internal interview with Customer Service at G.A.D

From the internal interview with Customer Service at G.A.D the notification issue was confirmed. Customer Services usually needs to check status, confirm on set delivery and calm every customer that everything is under control. Customer Service sometimes even walks out to the production site, snaps a photo on the piece of furniture in process and send it to the customer by email. This is time consuming but gives the customer a sense of security and calmness.

Some customers have an overall understanding of how the company operates, some don’t. Such as long delivery times due to everything being handmade, maintenance, high prices and high quality of material. 90 % or all complaints is about the limestone, the appearance of it or how it have been damaged during transportation. The limestone top is thousand years old and does not look like any picture online may state, each limestone top is unique. Complains about how it doesn't look like they though it would and often wants a new one is usual. G.A.D have tried to solved this by having the less delicate limestones with more structure, colorcast and fossils in appearance in the showroom and on the website. If this generate in a happier customer in the end is not guaranteed, but the company have tried to solved it by this solution.

Many complains about the limestone is as well that it has been damaged during transportation. Customer Service estimates that 90 % of the cases it is the customer self how have damage the limestone carrying it and chipped a small piece from the edge when putting it down on the ground.

About 10 incoming calls a day to Customer service is about the limestone, an order or the delivery time. In addition to these, some wants to talk about price inquiries and special orders. Furniture maintenance, how to take care of their new piece of furniture or need interior and furniture suggestions. Some as well hope to get a discount by trying to order thru Customer service. All customers are prompted to order through any of their 35 retailer or at a showroom in Visby or Stockholm, as Customer service don’t want to compete with their retailers and sellers. As the website don't support full online shopping the customer have to visit a store or retailer. This could be one reason as well that some customers trying to order thru Customer service.

Today Customer service are involved in a customers journey in all three stages, Before, During and After and are thereby very important to the company. Some phone calls are not necessary and could be avoided if some information was shared in an earlier stage or in other channels the customer feel comfortable with.

Even though G.A.D have free shipping, customers often complains about Schenker and their delivery service, only front door shipping during day time. Customers feel they need to take time off from work to meet up their cargo. Schenker don't have access codes to front doors and aswell they don’t offer any help for indoor carrying which can be problematic and stressful for a customer. Customers are always informed about the situation when making an order. Indoor carrying can be arranged but then by an external moving company and an added cost.
4.1.3 External interviews

One face to face interview was conducted in Visby with a customer who live on the Island and who have owned a few pieces of furniture from G.A.D several years ago, today she only have the well known coffee table “Hejnum” with limestone left. The participant don't see here self as a strong G.A.D customer anymore, due to she have other needs today of being more changeable in here interior. With a interior/inspiration account with over 25k (thousand) followers on Instagram she is targeting a younger public who not are the typical G.A.D customer.

She have always been very happy with what G.A.D deliver, probably that’s why every process of purchase have been easy and fast to make. “You know what you get. And it is worth the price. “

Many of her purchased items was made on G.A.D Outlet in Västergarn at Gotland when she was around twenty five years old. G.A.D outlet is a popular concept where the company are selling out displayed furniture from the store, or pieces of furniture where a carpenter have saturated/measured wrong and created a piece of furniture the intended customer didn't order. These furniture sells during Easter holidays or in the summer period and are in the same high quality as all the other furniture, they just don't have a owner and are thereby sold at a 10-50 % lower price at the Outlet store.

The participant sold many of her G.A.D furniture online two-three years ago and got all money back she once spent, which is a guaranty of good quality.

The participant work from home everyday. Which makes her very free, but she lives on the countryside and without internet this would not be possible. Her job consist of accounting, running a online shop and a physics summer store. She also does various collaborations with companies such as product photography and interior styling.

At home she have three main workplaces. One at the kitchen table, one set of office with a stationary computer where she pack and send goods. And a extra work-room with a big table to be more creative. Here whole house works as a workplace for styling and product photography and is constaintly under development.

“At my desk I don’t have so many things, I only have use of a tape holder, hole puncher, a pen holder and four different big paper bins from Italy that are washable. I have these four paper bins because I get a lot of leftovers from packaging and they swallow a lot and as well I sell them in my online store”. Lastly, storage around the desk is the most important thing for here and she don’t see here self as a overall customer who would buy stationary items if she don’t have need for it at home.

4.1.4 Survey

In the first section respondents was asked to answer questions related to the company. Questions like; What do you think G.A.D are good at today and What do you think G.A.D should simplification, improve and be better at. In section 2, questions related to customers experience and channels used when in need of information was covered. To get a overall picture of who the customer are respondent was identified by age, gender and living situation in section 3. To find the stereotypic G.A.D persona the respondents
was asked questions like: *What sound system do you have at home, what car brand do you drive, what would you spend 10,000 sek on*, in section 3 as well. Data that classify people according to a particular set of criteria, e.g. where they live, how much they earn, age group or purchasing patterns can often provide an insightful tool as a Persona. These findings are interesting for a company as the assumption behind such data gives an overview of people who have similar lifestyles, behavior and attitudes will more often share similar purchasing habits.

**Sample size of survey and interview + The percentage**

By using a survey I could get customers feedback. The online survey was open 7 days and to produce significant and reliable result any kind of quantitative analysis a minimum of 100 respondents is needed. It should also be noted that more den 948 people were asked by email to participate in the survey but only 173 agreed to do so.

I got all email addresses from G.A.D. The email addresses was from people who have signed up for newsletters in Stockholms showroom and by customers who have signed their email adress when purchasing a piece of furniture in both Stockholm and Visby showroom.

The staff in the showroom in Stockholm estimate 95 percent of the newsletter subscribers are customers, and that is why I choose to use that list. The other email addresses was stored in Visbys Showroom and collected from a customer register from 2015 to 2017.

Around 35 email addresses gave me *Delivery Status Notification Failure* due to not being in use anymore or not able to find due to misspelling.

**The percentage of survey**

Rate of response is seldom 100% and thereby a higher rate of invites was send out. The simple formula to calculate the frequency response.

\[
\frac{100 \times \text{Number of replies}}{\text{number of invited to study}} = X \% \text{ rate of response}
\]

\[
100\times173/948=18,25\% \ (18\%)
\]

The high number of invites (around 1000) to reach more participants may include a ”failure analysis” when counting the response in the end. All though most of the invites was send to current customers the response rate got very low. In my case I removed the numbers of failed addresses before I calculated the frequency response and maybe an extra failure analysis calculation should have been made as the low rate number may indicate that more old email addresses are in the list of email addresses. The low rate doesn't affect the outcome of the survey as the response was over 100 participants, and around 160 persons in the survey state they are customers to G.A.D.
4.2 Survey outcome "Help us prioritize"

From 35 questions I will report some of the relevant answers below.

The meaning of a brand is not solely contained in G.A.Ds logo, or even its products or services, but in the power of the brand image formed in the mind of the customer. Customers to G.A.D are conscious of their environment and buy company values and beliefs. Sustainable thinking that are most tune with their own self-image of lifestyle or whom they wish to be affiliated.

When asking customers what is most important when purchasing furniture or interior the answers was almost the same as what makes you buy something from G.A.D and not from other brands? From/design, good craftsmanship, sustainable material, functionally/stable, good service vs. Form/design, good craftsmanship, quality, timeless idiom and local production.

A majority (87 %) say they are first hand customers to G.A.D, but only 32% say they have a connection to Gotland. Probably the number are little higher as 13% stated Other. In the comments it's obvious the Other have a connection to the Island. Such as parents/friends are living on the Island or they have part time work on the Island. Some even have a summer house or have went on many vacations to the Island.

Local production with solid materials are highly important but the respondents stated in the survey they don't think of the resale value (47%), maybe due to the high cost it creates an "investment thinking" which is a longterm vision and relation. At the same time, Neither or (21%) are highlighted as second most in the survey. Probably as the resale market is existing, but very low. There are not many items online eg. Blocket or Tradera find to be sold for a reduces price. If they are sold online all items are often sold close to its purchase price. This gives a sense of that the company are inline with there value words and beliefs, sustainable, high quality and timeless design. Overall the design language bring the company identify to life by peoples hearts and minds.

Customer wants a bigger Assortment (40%) when asking respondents on what the company can make better. More Showrooms (26%), easier to order online (20%) and better Delivery (15%). When asking respondents what in the assortment from G.A.D they want, the highest number (32%) says Details and smaller products. Side table and armchairs are on a shared second place (26%), close up are shelves (25%) and coffee tables (24%). Comments on what customer think of G.A.D Details are split in two, either they know about it and like it, or they have never heard of it. This type of information is not hidden, both showrooms and the website have all these items. I guess current customer doesn't see or connect Details series as an extension. Maybe they don't expect items other then furniture and thereby don't see them or maybe they haven't visited the website or any showroom the last year.

Overall it is possible information should be shared more clear and often from the company. Communicating News, how the process looks like and the overall assortment is highlighted from respondents when questions are asked on what G.A.D should inform there costumer more with and other kinds of improvement areas wished to be developed.
4.4 Identifying the customer

14 of the questions in the survey was specific to create a stereotype persona. Questions like, do you own your accommodation, what sound system do you have at home, what car do you drive, how much money do you spend on amusements and shopping every month, what would you spend 10.000 SEK on, your hobbies, where do you live and as well, age and gender.

Age, gender, income, etc only help the company to maintain a reality of who there customer is. Classic demographic and other kinds of divisions doesn't serve any relevance to a customer as customers have more in common with other people who are in the same context as them self. What drives a customers to buy furniture are people with a new need, such as being newly divorced, moving to a new place, children are moving out from the household or working from home etc.

In terms of stating who G.A.Ds customers are some similarities can be seen from the survey, Form/Design, good craftsmanship, functional and stable furniture, local production are highly important. Nature, Culture, traveling, interior and to read are their main hobbies. Common denominator are in a way that G.A.Ds customers are well updated and aware of their surroundings. Having a higher salary, a sustainable thinking in terms of “furnitures made to last for generations” are in this case probably the reason why current customers choose G.A.D and not other cheaper furniture brand. What surprised me the most was in terms of gender, Women (55%) are customers to a higher extend in relation to Men with only 44%. The case could also be that more women responded on the survey as they were the one who signed their email address in the buying process and not their partner.
Still, a classic demographic division helps the company to maintain a reality of who their customer is. A Persona map have been made due to lack of knowledge from the company today. In the map age, gender, relation to Gotland are visualized, in combination with other kinds of stereotypic features.
Two documents of a fictive persona are made as well. Hopefully this can serve as a guideline for future design work.

4.4.1 Opportunities for new design units

Based on the typical G.A.D customer there is not an major issue for space limitation at home, this is not investigated any deeper but knowing (92%) of the customers own there living and (74%) have no kids living at home anymore. Even though many of G.A.Ds current customers may not be in this category of living in small apartment with reduced space at home, there are still a potential younger customer having a need of a set place or a flexible but functional space for work at home.

Mirrors, hangers, rulers, pencil boxes, hooks, smaller shelves and storage, sound absorbers and other kinds of decoration are common today in public office environments. For G.A.Ds customers some of these examples may be interesting, but the focus will mainly be from practical use in the home office, whereas a clothing hanger or a ruler may not be the first priority.

Today's customer sometimes work from home. Sometimes, during nights and weekends (35%) and Yes, 1-2 days a week (17%), and in extension, Where do you usually work at home, Office desk (44%), Kitchen table (33%) Other (23%).

Further, asking respondents in the survey Which product/details are desirable around a desk in a home office environment, the highest percent landed on Lighting (87%) followed by paper storage/box (46%), desktop pedestal (45%) and paper bin (35%).
Conclusions:
In this project the decided have landed to focus on all these items, but as well a penholder and a hour glass. In the end, developing all these items in this project fully will not be feasible due to the limited time and resources.

Having the understanding and knowledge of the customer, the variety of living situation in terms of context and facts on what customers wants more of are now investigated with a valuable result. By being more aware the company can target and reach out to a specific customer to enhance customers needs, fit real life situations and in the longer run, increase sales thru marketing. And as a designer I now can make sure if any outcome fits or not.

4.5 Content for product development - Stationary
with all my findings thruout the process

Company: G.A.D, Gute art and design
Business case: Stationary items for the home office environment
Key findings: Market segment combined with costumers wishes
Customer needs: Design and form, functional, sustainable – high quality, good craftsmanship, sense of Swedishness/Scandinavian
Aim: Local production along with other manufacturers on the island or in Sweden
Goal: High quality reflecting G.A.Ds value words
Value words: Sustainable and many years of use, timeless, high quality

Objectives/What: Lightning, paper storage/box, pen holder x 2, paper bin & hour glass
Price: Middle class / expensive
Form: Timeless with organic shapes, home environment feeling
Background research: Make use of moodboard and the stated concept, Sand waves
Target group: End users, costumers. Make use of persona map.
Materials and surface treatment: Birch/Oak. Other materials should have a connection to Gotland with a sustainable and high quality focus.

Pic 12. Material board
5. Design process, Paper box + penholder

In this chapter the design process of a penholder with a paper box storage will be presented. (See appendix E for an overview of all 5 designed artifacts)

Pic 13. First initial sketches
5.2 Sketch process to prototyping

The best approach for this project that would serve G.A.D is to mirror their identity, make use of their value words and beliefs and in extend, translates it into business objects. Today G.A.D are well known by there barren idiom and connection to Gotland. My sketch process started thereby with having a concept of Sand waves to find inspiration, and make use of clay as an sketching method for form studies as sand waves are difficult to illustrate in real life with only pen and paper.

Pic 14. Form studies, first initial sketches in clay

Semiotic

When associating freely to waves the semiotics language will probably make you think of water waves showed in the picture to the right. They communicate with the aid of similarity, more specifically, images whose content is true to the reality that we can see what they represent or mean. As I started to investigate more in sand waves my sketching process instead had a focus to find different patterns in the surface.

Pic 15. Waves
Further, the step was to investigate in how the element of sand behave. Patterns found from the moodboard was then highlighted, used as a direction on what to illustrate and then incorporated in my drawings. Below are some sketched examples.

The process continued to find a size that would fit both the paper box and the desk. Different shapes was cut out in paper and discussed during a tutoring session.

The opportunity to make a unique and interesting product thereby landed in two different sizes. One small (12x24 cm) and one large (18x30 cm).
Two different penholder will be designed + a paper box for storage.

Below, the surface pattern are described through topography where height differences are depicted by level curves of 5 mm each. Topographic maps show a 3D landscape surfaces in a 2D visualisation usually from rocks, mountains, hills and valleys. They are often used in architecture drawings but as well in seamounts. I have used this method to communicate “sand waves” heights by illustration in Illustrator.
Prototyping process

Prototyp (Small) in oak made by hand in Tibro, Sweden.

Prototyp (Large) in oak.
Paperbox: In the University workshop I used the planer to get the material in oak down to a thickness of 4 mm before I cut out all the different parts. Milling cutouts for bonding and then easily clued together.

The size of a traditional A4 sheet are 21x29,7 cm. The paperbox got extra space on each side and the inner measurements are 22x31,5 cm. The inside height for storage is 3,5 cm. The front side have an extra milling for easier access.
Both of the prototypes have a cutout underneath of 2 mm. In the small model this makes it trustworthy in terms of a “locking” so that it will lie still and not fall off the box. On the large model it creates a floating feeling, doesent damage the tabletop and is slightly easier to lift from the table.

Instead of a cutout another alternative could be a 2 mm thick added piece of leather or filt. In the end, it’s a matter of price.
5.2 Material and surface treatment

Birch-Finland with white pigmented oil  Oak-Europé with white pigmented oil

The products are available in birch or oak, with a added surface treatment to be more durable. To become water and dirt repellent, prevent stains and the toughest damage, Osmo 3040 Hardwax Oil are choosen.

G.A.D are using Osmo as their current supplier and the hardwax oil are not harmful to humans, animals and plants in a dry state. The hardwax oil fits well for floors, furniture and other surfaces of wood for indoor use. The choosen color are light white pigmented with a matt finish. It is a natural vegetable oil and the wax provide a smooth dyeing and a harmoniously comfortable surface.

The wood retains its natural appearance with 1 application of Osmo 3040 and does not get a "permanent wet" look as with e.g. linseed oil. For a slightly whiter look, 2 applications are thereby made with Osmo 3040.

Large (left), Small with storage (right). Both in white pigmentet oak.
5.3 Manufacturing

The making of both penholders with sand wave-shapes in wood require a 5 axle cnc milling/router machine. CNC is a computer-controlled machine for mechanical processing and manufacturing of details. It is controlled thru a CAD drawing. Today G.A.D only have a three-axle milling machine at their production site, meaning these two product needs to be produced somewhere else if this 5 axle machinery is not invested in. Some benifts of a production milling machine instead of making it by hand, is it will be accurate every time, it goes faster and spreading of wood dust are reduced markedly as the machine handles it.

Three axis are overall most common, meaning:
X - In the longitudinal direction of the table
Y - Away from you or towards you
Z - Height and vertical

When the machine has four / five axes it is possible to rotate or angle the tool which is neccessary in the case of this product.

Pic 17. Illustration on a 5 axle cnc milling machine.

The Paper box storage is something G.A.D can produce by them self. They have both the capasity and craftsmanship knowledge.
5.5 Outcome
5.5 Proof of content

Commercial testing
There are no set boundaries according to cost at the time in terms of the products. At the market there are a wide range of stationary products in different price levels and materials. Two examples in wood are stated below:

Åhlens paper storage, 79 Sek		Skagerak, paper storage, L 599 Sek + S 399 Sek

The product from Åhlens are probably produced outside Sweden’s borders due to the low cost. As the product from G.A.D needs to be produced local/in Sweden the price will automatically be higher.

In terms of a standard costing model a manufacture cost consists of direct labor cost, direct material cost, tooling and development cost, factory overhead, and margin in factory. The prototypes are today made by hand for a total cost of 800 sek/large and 600 sek/small per unit. As the Sand waves products will be produced in a CNC machine (and not by hand) I would estimate half of the price as the outcome. A normal overhead added should be around 3-5 % and then it is up to the company how much profit they want to add in the end.

Today G.A.D have a tray in their product range that differs in price due to material options. These trays have a dimension slightly bigger than the Sand Waves products but shows roughly where the Sand waves products would be in price in store.

G.A.D tray 925-990 Sek
6. Discussion and summery
This study aimed to describe the different layers of an office environment and in extension with a position around stationary items for the home environment. The research is purely made duo to see how strong the flexible working culture is, if it will continue to increase, and if it is a good idea to develop stationary items with a focus for the home environment.
This study is undertaken by my as a designer with an end customer focus. I would like to remind the reader about my research questions: Who are G.A.Ds customers today? How can I meet customer needs around the home office environment and what products are thereby needed in G.A.Ds details assortment?
In the first phase of the project I was overall critical to stationary as the market are filled with stationary items and the need of producing more artifacts to planet earth maybe not be the most important thing to increase any brand value. For a sustainable approach I then focused on customer orientation and find out several of wishes and needs from current customers. As the result showed wishes of more ”G.a.d details” I found it suitable to continue. The overall result in this study are not only the outcome showed in the two different units, the result is the strategy of incorporating customers in the process as it gives a stronger reliability. My third objective, can a customer perspective evaluate a good stragey for G.A.Ds future? have been significant as it gave me answers on what to do and not to do and would be likewise as important for the company for future work. Investigating customer needs and wishes in terms of product and service development as a strategy should be prioritised somehow and always be under a continuous development area and not overlooked. Hopefully this study will give the company and other similar companys the understanding of the high value it brings.
The innovation in this project is not only to create a new idea, it is to see where the development areas are, make use of the possibilities and launch them in the right time and context. G.A.D have an amount of possibilities to incorporated faithful end customers in the process for development. Business opportunities then can create units with a value for the end customer, this is not only sustainable for the environment but as well for the companys economy. I guess it is lack of time and resourses today that complicates this way of working.
During the process G.A.Ds customer was stated in a persona map, which was neccessary and helpful as I got the overall understanding of age and gender. Likewise I got some knowledge of purchasing habits. Not only related to furniture and interior but overall from how much money they have in their pocket and whats most important then. As the age category is a bit older and customers probably have the most nececeary items at home, being more sustainable are priotitized as it gives a personal fulfillness with a high value.
As an external partner to the company I have seen that Im flexible and able to work and handle many kinds of people in a design project. That I am abel to meet customer and company requirments and still deliver set goals. Despite some difficulties there has been an overall low stuggle thru out the process. The only problem have been collecting
email adresses and the low frequence rate it gave in the end. But that is purely from my own point of view and is nothing that has affected the thesis or the outcome. All choices made are due to customer needs and wishes today from the survey. If more people would have participated maybe the outcome would have been slightly different in terms of designed units, not the chosen concept of sand waves.

In my project I have made use of well incorporated design methods from different perspectives such as product design (sketching and prototyping) and service design (persona and journey mapping) which is some of my basic design skills. Having interviews, workshops and creating a survey have on the other hand, demanded more work. I guess that is visible in my process and by my methodology in this thesis.

My own relation to Gotland have helped greatly to identify the concept of sand waves, the main inspiration in the project. And likewise to integrate with the company and customers have probably also been significant for my work and result as I have had a pre-understanding from the very first stage. Even though I knew very little about the company in advance, I still did know of them and I had the overall feeling of how they want to perceive themself.

For future work I would start to produce 20 pieces of each product showed in this thesis. Go deeper into manufacturing, how long it takes to produce, the cost of production with certain material and further investigate in other opportunities for materials such as glass and concrete.

I would then as well send these products to interior and product influencers on social media such as bloggers and instgrammers to meet a younger customer. One receiver would be the participant I interviewed and mentioned in this thesis.

This study is mainly done from a designers perspective in collaboration with a company as a case. All respondents have answered from their own experience and their point of view. Therefore it would be interesting to further investigate in my given suggestions to the company in terms of service opportunities for development, if it generate in noticeable improvements in the customer experience. However, it takes time to measure and a follow up, this is more likely to be made by me in the future. I will probably always have some contact with the people at the company after this project as we have getting along very well and we all have the strong connection to the Island.

/ Ramona Hallgren. May, 2017
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G.A.Ds website [www.gad.se](http://www.gad.se)

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Pictures

List of illustration (images, diagrams, etc.) in the order in which they appear in the report. If no source is stated, the picture belongs to the researcher.

2. Collage, State of Art, Competitors
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4. Project set-up
5. Details packaging
6. Swedish Furniture Import and export
7. Collage of stationary examples
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8. Project set-up
   I have put the picture together in a collage but I will not take credit for each picture.
10. Illustration of Persona Map
11. Fictive personas
12. Material board
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Appendices

A. G.A.D Details
B. Collage, State of Art 1
C. Collage, State of Art 2
D. Customer Experience & Customer Journey Map
E. All 5 designed artifacts for stationary collection Sand Waves
Appendix A, G.A.D Details
Appendix B, Collage State of Art 1
Appendix D, *Using Customer Journey Map to improve Customer experience*

Service design is holistic, system thinking and are based on the customer journey. A customer journey map is a very simple idea: a diagram that illustrates the steps a customer go through in engaging with a company, whether it be a product, an online experience, retail experience, or a service, or any combination. The more touch-points, the more complicated -but necessary- such a map becomes.

An example of a journey map is, engaging with a customer by advertising or in a store, buying the product or service, using it, sharing the experience with others (in person or online) and then finishing the journey by upgrading, replacing or choosing a competitor and re-starting the journey with another company.

Touch-points are where customers interact with the company at different levels, in different stages, and are a high-level overview, constructed from the user’s perspective. All ”interaction points” are based upon their experience and creates a journey. Constructing a journey map from a customers perspective involves defining these touch-points by generating user insights. Once the touch-points have been identified, they can be connected together in a visual representation of the overall experience.

The focus should be on; what the customers wants your company to be great at. Not spending resources improving what the company itself wants to be better at. Focusing on finding what’s most important for the customer as they often want a normal life without difficulties such as unclear touch-points.

**Why investigate in G.A.Ds customer journey?**

When many company is equal such as from values, production and appearance it is the experience that makes the difference. Happy customers are less expensive then unhappy customers. It is the customer who decides, not the company, how well designed a service is, as they have the experience of it. If any increase in sales wants to be implemented and targeting a potential younger customer one first step I think is to have a good overview of how it works today.

**The purpose and value of Customer Journey Mapping**

By creating a Customer Journey, it is possible to find critical touch-points of offered services today and develop them further to serve customers even better. Customer Journey makes it possible:
- to see the service from the customer’s perspective
- to evaluate the most important moments in the service
- to get a understanding of the companies customer’s experience
- to represent the service as a process with a holistic view (before - during - after)
- to discover opportunities and create better services to customer

**Implementation**

The customer experience is simply a result of how customers perceive the service and the company. The experience are built up by touch-point, expectations and feelings of what the company really deliver in the end. It determine whether the customer chooses the services again, or move on to a competitor.

A customer can not account for how tomorrows services should look and feel like but a customer are often experts on their own needs, behaviors and expectations and are thereby highly necessary to involve in the process when creating a understanding of how the current service works. During the project interviews (both internal and external), and a survey was conducted to investigate the current customer experience.
Identifying improvement areas: What works well and what doesn't?

One of the main touchpoints seen in the map are how important the actual store is. Customers feel overall inspirede when visiting a showroom, but a bigger assortment are wished for. The service are thereby one of the most important keys for a customer, to have a conversation with any seller to get answers on what the customer needs/wants to know. If there is a gap in the conversation, questions will appear later, in a mail or by phone calls to customer service. Although the information appear on Internet will there be customers who want to hear it too by an employee.

Maintaining any customer briefly in their journey will not build a long term relationship. Having a holistic view from the company side are important and crucial to get a strong customer to return. Mapping a group of customer needs, behaviors, expectations and relation to a service is the aim with a Journey Map.

The internal C. J. Map to the right shows findings from interviews and workshops with the company. The map show as well differences (when comparing to C. J map above) between customer and company. The company can with this Journey Map evaluate the most important moments in the service and likewise work on touchpoints for improvements.

In the end, there are several opportunities to create a better customer focus culture. The focus should be to always maintain and focus on what the customer want the company to deliver and be really good at.
Doing a costumer journey map ones does not mean that the company are done. Innovate new and develop current services improves to minimize shortcomings that gives higher quality in the experience. Constantly working on improving and always be aware that changing strategies can be necessary to keep the costumer happy and satisfied. If the company wants a younger customer the awareness of a constantly changing environment needs to be understood. In todays technical society generally a younger costumer expect a upgraded service compared to an customer in a older age category. Many people are well aware of the overall market, have the power to find what they need as technology proved less limitations and more expect a modern and easy lifestyle.

There are several ways of developing design proposals that successfully can meet the requirements identified in the main map above. At this stage, my design proposals do not deliver a fully description on how to work, more it provides an outline on what to focus on, which context if should have and what it needs to meet. The proposal below are a written document that sets out the overall design service from my findings through my research and will contain of a business case, key findings, project goals, aims, and objectives, background research and future aspirations: target group, functional requirements and specifications.

**Case - Brief examples for future development**

**Business case:** Prioritized what costumers wants more of  
**Key findings:** Customers feel lack of knowledge about the manufacturing process and have overall low control over their situation  
**Aim:** Customers should not overlooked, but prioritized in a more effective way  
**Backround research:** Make use curent of Costumer Journey map  
**Target group:** End users, (plus employees at the store)  
**Goal:** Innovation lies in developing relevant customer experiences and the right interaction point from a customer view. Simplify and help the customer understand and have control all the way. This brief lays around Customer service, where time could be utilized in a better way (one-two hours) extra per day, by help Customer Service work on other things than answer customer questions like: “When is my estimated delivery” or “How is my delivery going” by developed specific solutions from:

**opportunities:**

- Be more open about process. A clarity of how the whole process looks like. From carpenter to delivery. Make use of social media/website and visualise the customer Journey as a marketing segment. (Highlight the process in the product catalog and in-store. In combination by creating a open customer journey map for the customer with a easy overview of how the process looks like and things that happens during 8 weeks of production. This examples are as well a helping tool for any seller whether it be in any showroom or a retail store.)
- Clear instructions when the customer purchase by staple a process information note with the order  
- Text message notification/email to customer, twice during the manufacturing process  
- Informing about news in a broader sense.  
  **Example 1:** Being visible at the Furniture fair in Stockholm each year  
  **Examle 2:** Market G.A.D details range in a much higher extend. (Customers today either know about it, like it and wants more, or they have never heard about it.)

- Involve influencers for collaboration on social media but still have a professional point. To be seen but not to sell out completely. Choose partners carefully.  
- Highlight the company, designer and co-workers to a higher extand. Become more proud of the company by actually be more visible.  
- Involve end users in the process of development, have workshops and create surveys when it is neccessary.
Appendix C, All 5 designed artifacts for stationary collection Sand Waves

Desk: Garda from G.A.D

Stationary in home office environment:
- Lightning S-shape
- Paperbin
- Hourglass
- Paperbox storage + penholder Small
Hourglass with wooden base,
Lightning in a S-shape in solid wood
Paper storage with penholder

Paperbin.
Wooden base and powder coated metal.
Penholder Large, in living room environment