

STARTUP ENTREPRENEURS */VS* ACCOUNTANTS

A platform to motivate
early collaboration and support



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EXECUTIVE SUMMARY

Startup entrepreneurs are digital natives, a new generation entering the job market and challenging today's ways of working. They are accustomed to highly interactive technologies and use expressive and fast work methods. These richer ways of interacting however, are not always supported in the rather traditional context of accounting and collaborating with accountants.

Problem

A design challenge presents itself in bridging the gap between startup entrepreneurs and accountants. As a result, this research and design project was initiated with the aim to explore needs of startup entrepreneurs and accountants and define how to best:

- support startup entrepreneurs and improve their accounting experience and collaboration with accountants.
- help accountants to position themselves in the new market and adapt to changing user needs.

This report is the final result of a MSc graduation project in affiliation with the Industrial Design program at Delft University of Technology and in collaboration with Exact, a global provider of business software located in Delft.

Research

An extensive user research including literature reviews, user interviews and context mapping

studies drove the development of a final concept for the small business and collaboration between entrepreneurs and accountants. The rich data gathered was translated into insights describing (1) needs and emotions, gaps and touch-points between the target groups and (2) attitudes towards the final concept design and improvements possible. The research led to the following conclusions.

Accountants and startup entrepreneurs are each other's opposites in terms of personality, preferred methods of working and communicating, expectations and knowledge levels which all can lead to problems when collaborating.

Throughout the development of a startup, needs for financial support change greatly. In the early stages of a startup, entrepreneurs express mostly negative emotions in relation to accounting. Early-stage entrepreneurs need; personal support, knowledge and simple functionality to build up their confidence in starting and managing a business.

Accountants are facing difficult times of decreasing revenues. Big adjustments are required in order to reverse the downward trend. A new kind of accountant is needed, one that focus on not only accounting but also communication, relations, marketing and sales. The future will show how well current accountancy professionals can live up to the new expectations.

Technological innovation and a new generation of demanding customers have big consequences for the activities and work roles of accountants today and in the future. By providing opportunities to build relationships with the early-stage startup entrepreneurs, accountants can grow their businesses. By focusing on early-stage entrepreneurs, rather than more mature businesses, new opportunities for customer acquisition are created in a market that is less crowded. Startups present a new market opportunity, but they also challenge accountants to start doing things differently.

Solution

The proposed concept is a knowledge and achievement based system, that guides the entrepreneur in starting their business and related accounting activities. It provides instant accountancy support through chat and video-conferencing as well as rating systems and matching tools for choosing the right accountant. Third-party integration with financial parties such as banks, the Tax office, the Chamber of Commerce, make early accountancy activities more efficient. The concept is simple but smart. As a cloud-based solution, all data is safely stored in one place and automatically updated. Financial activities are easily planned, managed and executed via the financial calendar that provides alerts and reminders.

When in need of more advanced solutions, the system provides for easily import to Exact Online.

Reception

Evaluations with five target users and an interactive prototype indicate that the concept has great potential to fulfill the user needs and attract both startup entrepreneurs and accountants. Additional research is required to assess the potential size of this market. Further work is also needed for getting the concept to a final state. The recommendations following from the user tests should support this development.

Conclusion

The project was successful in achieving its two main purposes: 1) develop and communicate a deep understanding for new user demands and future challenges related to accounting and 2) identify opportunities for Exact to better support the needs of accountants and startup entrepreneurs.

The research has also proven useful to Exact as it points towards a possible future of accounting and collaboration between accountants and entrepreneurs. The continued prosperity of Exact will depend on the ability to attract new generations of customers and adapt to their needs and preferences. This project's outcomes and insights will hopefully support further advancements and provide a starting point for bridging the gap between accountants and startup entrepreneurs.



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Prologue

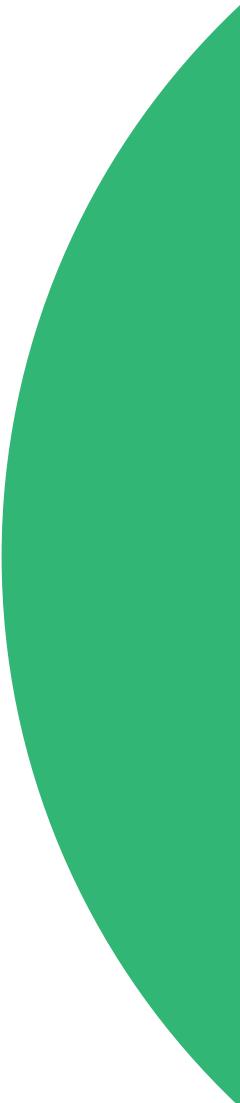
In your hand you have a graduation report describing the process and results of a research and design project completed in cooperation with the business software provider Exact. This report also marks the final step of my journey that started in a different country many years ago and now ends with a MSc degree in Design for Interaction at the faculty of Industrial Design Engineering, Delft University of Technology.

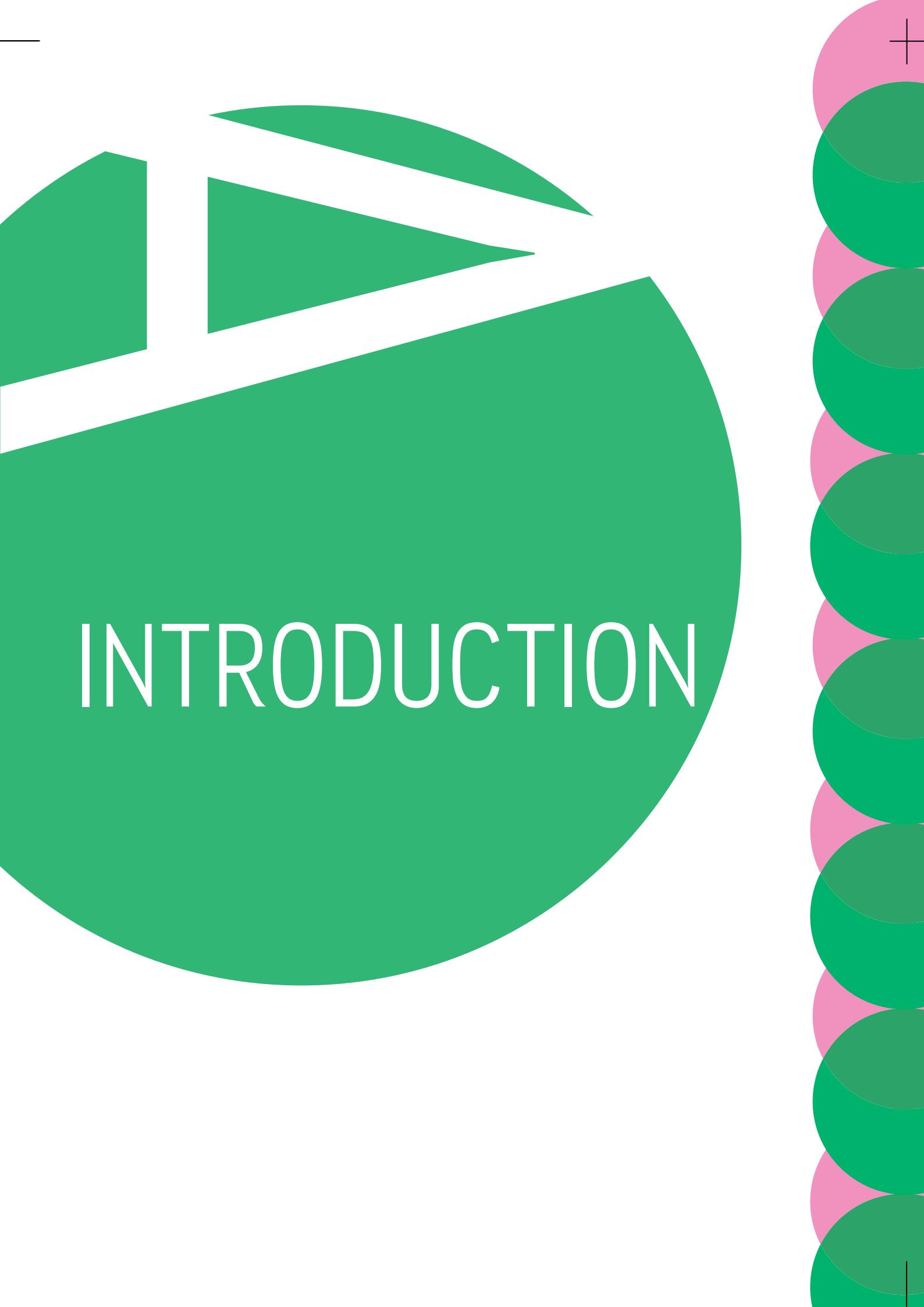
Throughout the course of the project more than once somebody raised their eyebrows when I explained it... ‘accounting software? Is that really your thing?’ After further explanation the discussion almost always ended with the person being as excited about the project as myself.

No, accounting is not a secret hobby of mine, don’t worry. What I am passionate about is user research and personal development and this project provided me with both. It gave me opportunities to explore user needs, wishes and touchpoints between two target groups and develop and test a solution. Through the project I also got the chance to work within an international company with big visions and gain valuable experiences while learning from a skillful workforce.

I seeked a challenge, and truthfully speaking I don’t know many bigger challenges than trying to bridge the gap between the two opposing natures of accountants and startup entrepreneurs. Knowing the generally negative attitude to finance from startup entrepreneurs, I asked myself - why not try to make accounting fun? Is it even possible and how?

With this project and report I hope to shed a light on the great opportunities I see in improving the experience of starting and managing a small business and collaborating with accountants.





INTRODUCTION

This project was officially initiated in the beginning of February 2013, though the process of finding a company, putting together a supervisory team and defining the assignment started months earlier.

The interest to do a graduation project in collaboration with Exact was initially sparked by a guest lecture about User Experience design by the company. Not long after this, first steps were taken to get the ball rolling and with time the foundations for the project could be laid out. This chapter aims to set the scene for the report. The assignment, research setting and project goals are described and the research framework, method and project structure are defined. A final section includes an outline of the report structure to guide the reader.

Definitions of terms can be found throughout the report. In addition to this, definitions concerning products, people and contexts as well as involvement of target users can be found in Appendix 1, Definitions.

The assignment

A new workforce named Generation Y (born between 1980-2000) is currently entering the job market. Being the first generation of digital natives, they grew up with highly interactive tools, applications and technologies such as mobile phones, mp3 players and multi-touch tablets. Young startup entrepreneurs are part of this generation and therefore generally accustomed to new, more expressive and natural ways of interacting with tools and collaborating with peers/colleagues etc. In the context of accounting and collaboration/communication with accountants, however, these richer ways of interacting do not always seem to be supported.

Most interactions, activities and collaborations within the context of accounting are still done by means of traditional tools and setups. A design challenge presents itself in bringing these new Generation Y type of interactions into the context of accounting; bridging the gap between startup entrepreneurs and accountants, improving the experience of accounting and supporting

new work and collaboration methods.

The target users are accountants and entrepreneurs in startups. Research on the context and roles of the target groups and existing communication styles between target users needs to be conducted and communicated to the company. Following this research, opportunities will be identified driving the development of a design concept to be evaluated with target users.

The project is done in collaboration with Exact (exact.com), a business software developer located in Delft. Exact Online is their web-based application targeted at SMEs (small and medium sized enterprises) used for bookkeeping in collaboration with an accountant. Communication is a key aspect of this collaboration. The project is furthermore affiliated with Wei Liu's PhD project on "Supporting Generation Y Interactions in the Office Context", which is a collaboration between the ID-StudioLab and Exact. Research done so far on interaction qualities and design guidelines will guide the study.

Research setting

The project implementation is closely related to the background of the researcher, the character of the collaborating company and its product. Below follows a short introduction to the Master program, Design for Interaction at the faculty of Industrial Design Engineering, Delft University of Technology and to the company and product; Exact and Exact Online. For a brief introduction to design research and User Experience design see Appendix 2 and 3.

Design for Interaction

Design for Interaction is one of three MSc programs provided within TU Delft's Industrial Design Engineering faculty. The main focus of the 2-year program is on the interactions between people and products; user needs, expectations and experiences. The study is multidisciplinary and aims to provide the full skill-set needed to design for interaction: context/user analysis, concept development, prototyping and evaluation. The course program includes courses ranging from ergonomics, usability and aesthetics to

psychology and sociology. For more information about the program website (TU Delft, 2013).

Exact

Exact is a global provider of business software and high quality services to help entrepreneurs run their small to medium businesses more efficiently. Their solutions range from finance and administration to manufacturing, wholesale distribution, logistics, professional services, human resources and marketing.

The company began as the typical startup - by a few visionary students in a garage back in 1984. A quarter of a century later Exact has approximately 100 000 customers spread all over the world and an annual revenue just over the 200 million euro mark. Exact had 1650 employees worldwide by the end of 2012. The head-office with about 350 employees is located in Delft.

Exact software is the market leader for online as well as on premise (downloaded) accountancy solutions in the Netherlands and Belgium. About 27% of all A&As (Accountancy and Administration firms) use Exact software on premise solutions. Exact Online is Exact's cloud solution and it is used by 35% of the accountants and has twice as many clients as the competitor Twinfield and three times the client base of Unit 4 (on second and third place of the market leaders) in the Netherlands (de Jong, 2013).

Exact Online

Exact Online Accounting and Exact Online Accountancy are fully integrated bookkeeping and CRM (customer relationship management) software targeted at SMEs and accountants. The solutions are scalable and include features such as clear financial status overviews, reminders, electronic invoicing, banking integration and automatic scanning service. Exact offers their users support, monthly subscriptions and free mobile applications. The systems furthermore supports collaboration between accountants and entrepreneurs which is a unique selling point for Exact Online.

Goals & Relevance

The challenge of this project lie in finding ways to support entrepreneurial interaction styles within the partly conservative accountancy world.

My aim is to identify opportunities for Exact Online to extend its business value by addressing the current needs of startup entrepreneurs and accountants. This will be done by defining how Exact best can:

- Support startup entrepreneurs and improve their experience of accounting and collaborating with accountants.
- Help accountants to position themselves in the new market and adapt to changing user needs.

The main research goals for the project are:

- To develop an understanding for the context and the changing market of accountancy.
- To develop an understanding for the world of the target users (characteristics, working methods, tools and interaction styles).
- To identify gaps and touch points between the target users.
- To identify needs and wishes related to accounting from the perspective of the target users.
- To explore possibilities to bridge the gaps and improve the collaboration between the target users.

The body of research directly linked to the scope of this study proved to be very limited. No previous research on supporting accountants and accountancy for startups could be found. The few partly connected reports that supports the results from this study are introduced in the Background chapter and referred to throughout the report.

Research framework

The illustration below represents the research framework and problem definition for the project. The research includes two user groups (accountants and startup entrepreneurs) that vary on type of personality, ways of working, collaborating, etc. Gaps and touch-points between the two are identified by means of a literature

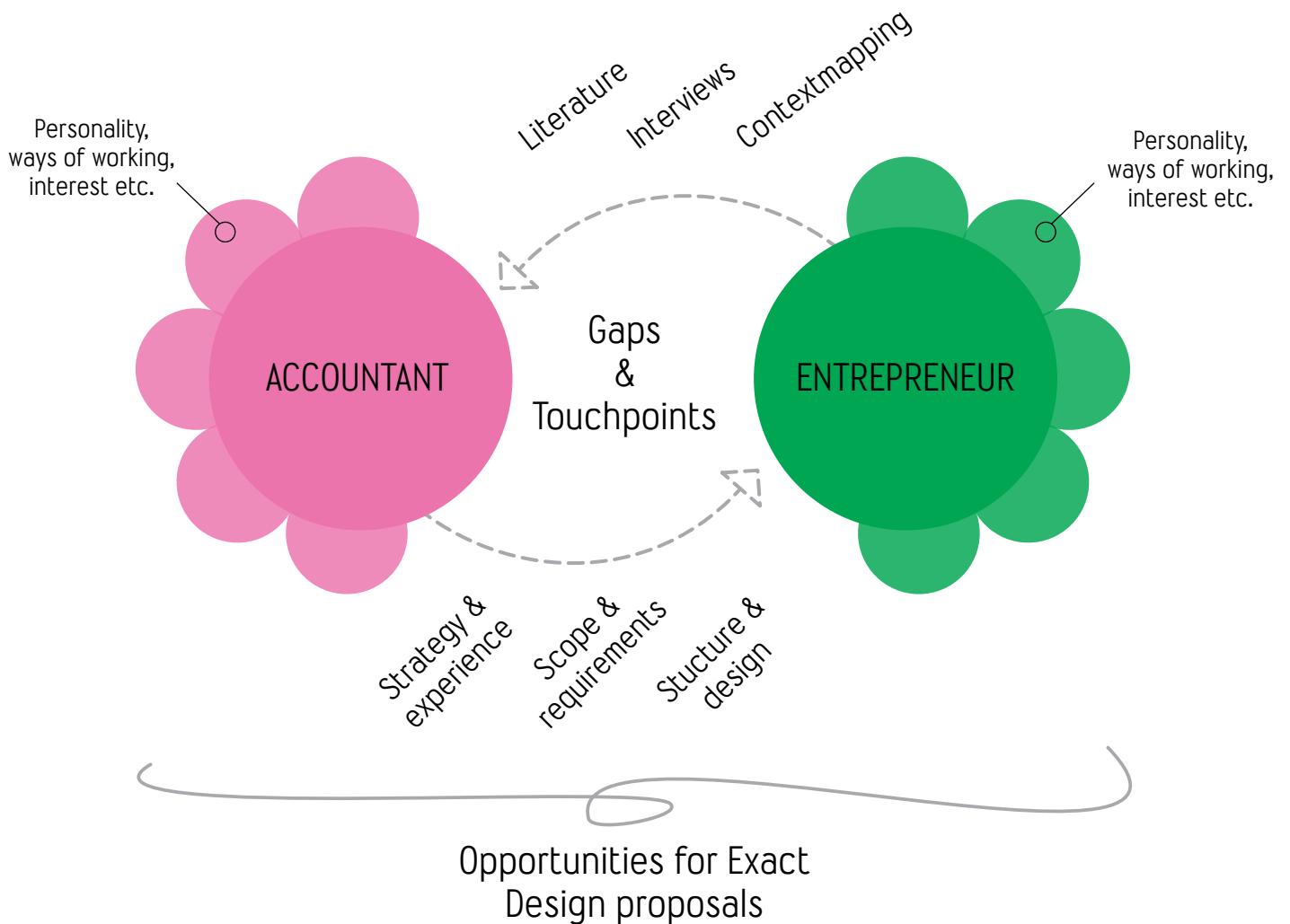


Figure A.1. Research framework.

review, interviews and a contextmapping study. The user research aims to provide rich insights to inspire the development of a strategy, scope and structure to be translated into a design proposal, and for identifying new opportunities for Exact.

Method and project structure

The project is dominated by extensive user research exploring the worlds of the target users through literature reviews, interviews and context mapping studies with target users. The five research goals (see previous page) direct the background orientation and research. The re-

sults from the user research are thoroughly analyzed and the insights are communicated through the design of a story presenting the: (1) problem definition - the changing market of accountancy and (2) startup needs and financial touch-points.

The research outcomes drive the idea generation and development of a strategy, scope, structure and design for a concept to support Exact as well as the two user groups - accountants and startup entrepreneurs. Finally the concept is evaluated in explorative tests with target users. Improvements are identified and communicated in the form of final recommendations.

Thesis outline

The report is divided in six parts (excluding the introduction): Background, Research method, Research outcomes, Conceptualization, Concept evaluation and Discussion, final conclusions & recommendations.

The background aims to provide a fundamental understanding of the target groups and main subject upon which the subsequent project phases rests. The Research method chapter outlines

the method; process, raw data and analysis of the user research. As a logical follow-up, the research outcomes are presented and opportunities for Exact are identified through the development of a strategy, scope, structure and final design in the Conceptualization chapter. The design concept is evaluated with target users. The method, setup, outcomes and recommendations can be found in the concept evaluation. The report is rounded off with a brief discussion, final conclusions and recommendations.

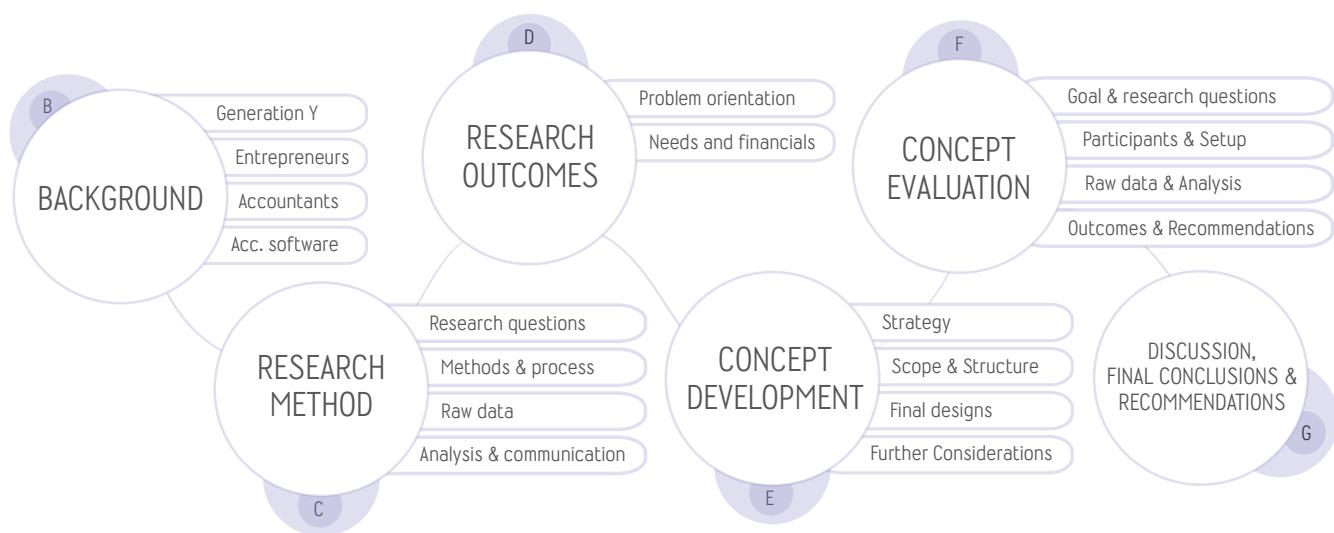
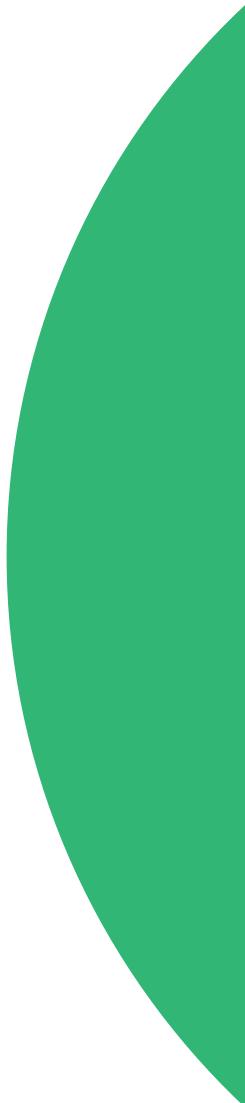


Figure A.2. Thesis outline.



BACKGROUND

The orientation provides a foundation for the subsequent research phase and a basic understanding for (1) Generation Y and the target users: startup entrepreneurs and accountants and (2) accounting software; context, market and competitors. The outcomes from this work are presented in this chapter.

Generation Y

As outlined in the assignment description (see the introduction), one of the general aims for this project is to, within the context of accounting, explore and integrate novel interaction styles recently introduced by generation Y. This section provides a perspective on the characteristics of the new generation.

It is evident that the ways of interacting, building relationships, using technology and communicating steadily change. Compared to a few decades ago, we now live in a world with a better connected, competitive and more complex work environment. IT has gone through a rapid development enabling a totally new palette of interactions such as messaging, blogging and social networking (Liu et al, 2011)

The most recent generation to join the workforce is generation Y, born between 1981 and 2000 and also referred to as Millennials, digital natives or the Net Generation. This is a group of globally 1.7 billion individuals, rapidly growing and sequentially changing working styles and interactions of today's and future work life (GT briefing, 2011).

Generation Y is the first generation to have been brought up with various forms of digital media.

For them IT is a platform to work, learn and communicate (Liu et al, 2011). The group is, while introducing new digital attitudes and behaviors, challenging the ways to interact both privately and professionally. Generation Y "is a curious generation of mass collaborators and active participants in online content contribution, who simply expect not only that everything in the work sphere is online, but also that online information is valid and reliable" (GT briefing, 2011). More general traits for Generation Y is that they are globally concerned, environmentally conscious people with a collaborative focus. Self-fulfillment is a main motivation in their work life and finding a good balance between work and personal life is very important (Liu et al, 2013).

Several trends can be seen in the digital workplace derived from the needs of new generations, such as social networking, multitasking, online sharing etc. A few of them, seen as specifically interesting for this project are described in Appendix 4, Trends in the digital workplace.

Entrepreneurs and accountants

This project relies on the thorough understanding of the target users. This section presents existing literature regarding the personalities of accountants and entrepreneurs. A few definitions of entrepreneurs are reviewed and a brief outline of the work done by an accountant is given.

Personality traits - The big 5

As described by Levy et al (2011) the Big Five method 'reflects a paradigm shift in the field of psychology, especially personality and individual differences, contending that there is a core set of five broad personality traits that infuse all areas

WHAT IS MY DEFINITION OF A STARTUP?

Multiple definitions are used for startups in literature, most often using one or several of the following words: "new", "active" and "independent". In this report the definition as suggested by (14) will be used that includes all three: "A business that is new, active and independent". New is defined as a business that has been active for less than 5 years.

PERSONALITY TRAITS - THE BIG 5

Conscientiousness: Indicates persistence, reliability, trustworthiness and a goal-directed behavior following norms and rules as well as a high degree of organization and planning. This trait has been found to be a close to universal predictor of job performance no matter profession (Personality Traits and Career Satisfaction of Accounting Professionals, 2011).

Openness: Describes a general openness to change and innovation, new experiences and experiential behaviors.

Agreeableness: Indicates altruistic, trustful, modest and forgiving behaviors.

Neuroticism: Contrasts emotional stability and resilience, indicating negative emotions such as anxiety, sadness, nervousness and tenseness - lowered abilities to handle high levels of stress.

Extroversion: Indicates high sociability, activity and assertiveness, a tendency to be outgoing, positive, talkative and expressive.

of behavior, including work behavior.' The personality traits used in the Big Five method are well supported by empirical research.

In a report by Brandstätter (2011), five meta-analysis concerning entrepreneurial behavioral research are compared and summarized. This allows the following conclusions to be drawn from the personality traits of entrepreneurs connected to the Big 5 dimensions.

Entrepreneurs show higher levels of Openness (closely linked to innovativeness) and Consciousness when compared to managers. Entrepreneurs are slightly more extrovert than managers. Extroversion is, as well as the dimensions of Openness, Conscientiousness and Neuroticism correlated to a proactive personality. Entrepreneurs also show higher levels of emotional stability and stress-tolerance than managers. The only dimension where managers present higher scores than entrepreneurs is on Agreeableness.

The report by Levy et al (2011) presents results for the Big Five dimensions related to accounting professionals. Accountants present higher scores than other professions on Consciousness.

For the other four dimensions: Emotional stability, Openness, Agreeableness and Extraversion, accountants score much lower than other professions.

It is evident that the personality traits of entrepreneurs and accountants differ greatly. This can be a potential obstacle to close collaborations between the two groups. Even more so due to both groups scoring low on Agreeableness. Both accountants and entrepreneurs score high on Conscientiousness but in all other regards, the Big five results indicate opposite natures.

Entrepreneurial characteristics

Many characteristics typical for entrepreneurs are found in entrepreneurial literature. Studies generally refer to individuals that are able to envision future possibilities that others fail to identify. An "opportunity driven behavior" is often mentioned together with criteria such as: individuals coping with complexity and operating in an area of high uncertainty, few precedents, lack of data and heavy time pressure (Allinson, Chell and Hayes, 2000). Additional definitions of entrepreneurial behavior can be found in Appendix 5, How to define an entrepreneur.

WHAT DO I MEAN WHEN I SAY ACCOUNTANT?

For reasons of simplicity the term 'accountants' will be used throughout the report for describing accountancy professionals. The term is used in its broadest definition and therefore includes all employees of Accountant and Administration offices (A&As).

Startup entrepreneurs and accountants clearly have very different characteristics. Another obvious difference between them is in their work tasks and processes.

Accountants & accountancy processes
 An accountant can be described as a financial business partner of the entrepreneur; making sure that the business complies with financial laws and regulations and providing service and advice to help the entrepreneur focus on his/her main business.

A&A firms that are focused on supporting smaller companies often mainly compile accounts. They handle the administration and set up annual year accounts, a process also referred to as the primary accountancy process or as in the figure below, the 'hands' of an A&A firm. This process can be further split up into accounting (input of data and registration), processing of data, reporting to stakeholders, control/monitoring, tax returns and declarations. Additionally more and more firms support human resource management and payroll (Nijdam, 2013).

Bigger clients often have their own administration and control department and here the A&A's have an approving function. In addition to the primary process, accountancy (especially for bigger clients) also includes business processes with more specialized services such as consultancy (fiscal, finance, payroll etc.), auditing, subsidy and investment plans, financing and communication, in figure B.1 referred to as the 'knowledge' part.

The accountancy sector in Holland

In total about 14.000 registered A&A's operate in the Netherlands (including only firms with authorized staff). 97% are independent firms while the remaining 3% are part of bigger branch organizations. 68% are self-employed without employees.

The accountancy sector can be divided in two groups: (1) The growing group of younger, IT-minded early adopters and trendsetters (in the following pages referred to as group 1 accountants) and (2) The stagnating group of on premise, traditional accountants scared of innovation and change (group 2 accountants).

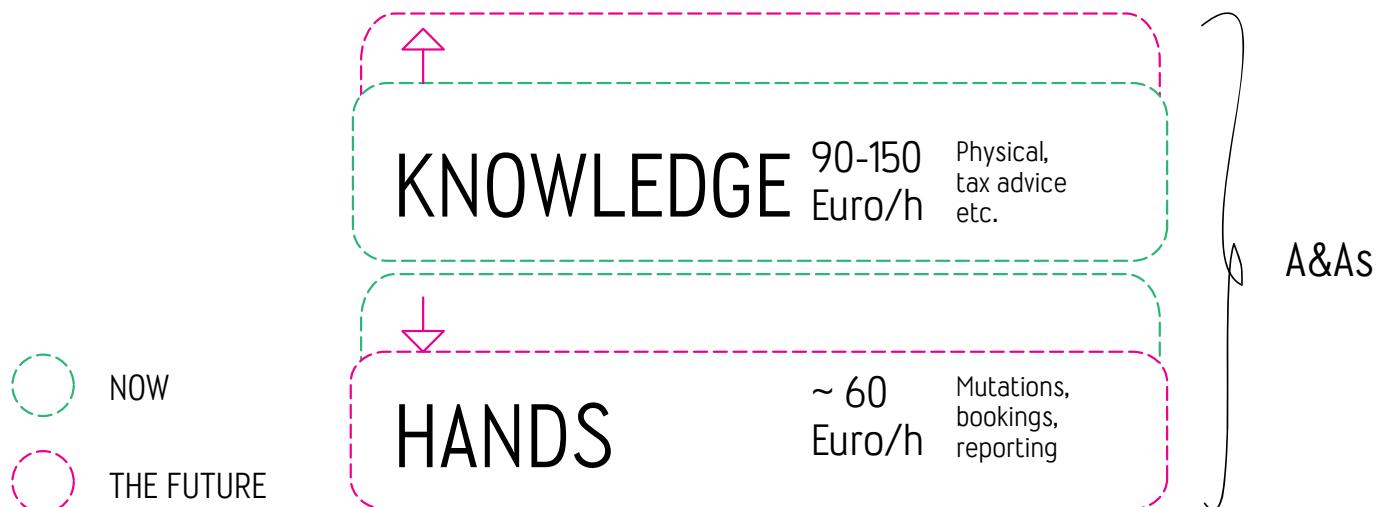


Figure B.1. Hands & Knowledge.

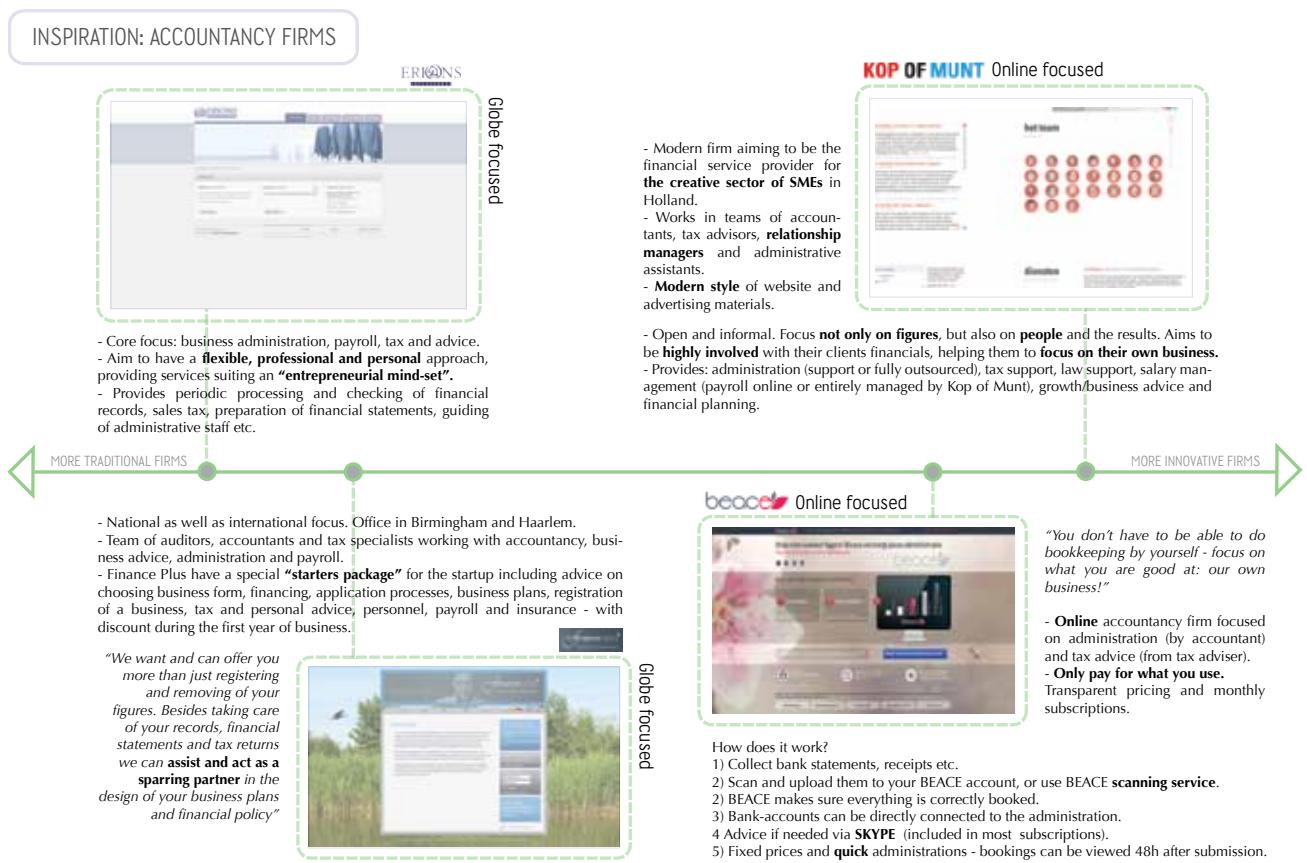


Figure B.2 Small comparison accountancy firms.

Group 1 is referred to as growing, though it seems evident that also this group is facing a challenging future. The personality traits of accountants discussed earlier support previous research indicating that current accountancy professionals may lack the traits to reach future satisfaction and success in their changing field of work (Briggs et al, 2007, Kovar, Ott and Fisher, 2003).

Figure B.2 aims to provide a small comparison of two more traditional and two more innovative A&A firms in Holland. The firms clearly differentiate in ways of working, services provided and marketing strategies targeted at startup entrepreneurs. The two firms on the left side in the figure work with on premise software (to be installed on a PC or server). They have quite traditional looking websites and use startup packages and expressions like 'entrepreneurial mind-set' and 'sparring partners' in their marketing as a way to attract entrepreneurs. The more innovative firms use online solutions as well as websites and advertising more in line with modern trends.

They specifically target small, young businesses by providing services adapted to the beginner's needs. The focus is on people as well as numbers, high involvement, transparent and fixed price models, simple step-by-step explanations and efficient technology to simplify the work.

For more information on details regarding the accountancy sector in the Netherlands, see Appendix 6, Additional information - The accountancy sector.

Accounting software

Why use accounting software? How does the market look and what are main competitors to Exact's solutions? This section aims to provide answers to these questions.

Motivations

Most small business owners/startup entrepreneurs are fully busy developing their company which leaves little time for activities such as managing the financials. Good software programs

support accounting, invoicing, inventory, payroll and reporting, improving customer relations and simplifying routine tasks. A small business has similar needs to manage their books as larger companies, but with the main difference of having less budget and personnel to support these needs.

Accounting software supporting accountants in their daily processes is similarly essential to their success. Next to specific knowledge and competencies the software is the most important asset of an A&A firm.

The market

The market for software targeting accountants is highly competitive and mainly based on replacing software. 99% of all accountants in the Netherlands already use a software for their daily work (Nijdam, 2013). A Market research done by Keala Consultancy firm further states that about 80% of all Administration offices use only one software package (de Jong, 2013). Recent innovations in IT, social media and communication technology led to an increasing number of migrations from on premise software to cloud based solutions within the accountancy sector.

The market targeted at entrepreneurs shows clear signs of increasing competitiveness. There are a lot of software tools to chose from aiming to fulfill the needs of small business owners, being online, all-in-one, affordable, user-friendly accounting software providing enough information but without demanding the user to become an accounting expert. Factors especially important to consider for startup entrepreneurs when choosing an accounting software, can be found in Appendix 7.

Competitors

Figures B3-B5 present a brief scan of the market of accounting software - clustering them into three groups on different levels of complexity. A fourth group specifically targeting the Dutch market is also included (see figure B6). Considering the number of players on the market, not the whole spectrum of software is covered - but rather a brief overview of each category.

As suggested by James Lochrie (2011) there are three different segments of accounting tools available for startups today: (1) Complete business solutions, are fully featured accounting system tools mainly used by A&As (2) quick and easy(er) applications providing a good amount of core accounting functionality but leaving out a number of features normally not required by startups and (3) very basic systems for simply tracking income and expenses.

Conclusions

The information presented in this chapter regarding user characteristics, accounting processes and software, forms a foundation for subsequent chapters to build upon. The orientation also resulted in a list of assumptions that gave direction to the user research. The assumptions are further described in Appendix 8.

It is evident that startup entrepreneurs and accountants greatly differ in terms of personality traits and that this might be an obstacle for close collaborations between the two. Generation Y, a group to which many startup entrepreneurs belong, continuously introduce new digital attitudes and behaviors and challenge current interaction styles. Accountants are more or less prone to change but literature indicate that even the younger and more modern accountants today might lack the characteristics needed for reaching future success in their field. Good accounting software is essential to accountants as well as entrepreneurs. Software is provided on various levels of complexity on an increasingly competitive market.

COMPETITORS: COMPLETE BUSINESS SOLUTIONS



- A complete business solution
- Have a big market share.
- Is quite complex and therefore difficult to use if not used to basic accounting terms.

Second best in: 2013 Best Accounting Software Comparisons and Reviews:
"QuickBooks Pro is still the reigning leader in easy-to-use accounting software for small business owners who need to manage a wide variety of complex tasks through one piece of software. This software works flawlessly with helpful add-ons such as payment processing, direct deposit, payroll and check printing, to make running your business just a little bit easier".

"I recommend Quickbooks. As you grow its the one most bookkeepers and office managers are familiar with, it can scale as the business scales, and is reasonably intuitive"

Warrick Taylor, Startup Fund Raiser



- A complete business solution.
- The best accounting solution in: 2013 Best Accounting Software Comparisons and Reviews:

"Within the last year we have reviewed over 40 accounting solutions and continually Sage lands on top... Sage 50 Complete Accounting is the best comprehensive all-in-one solution for small businesses. This software is easy to use even for non-accountants, and if your business keeps growing... Sage can help you organize your business and present your company in a professional manner to your clients..."



- A fully featured alternative to Quickbooks with a possibly simpler UI.

"XERO is internationally used and is one of the easiest software to learn"

Nibrhant Shah, CEO/Entrepreneur @Themis Accounting .



- A fully integrated business/management tool.
- Has a strong reputation for providing business software that easily communicates with other systems.
- Cloud solution.
- Majority of users medium-sized businesses.



- A complete, cloud-based double entry accounting system.
- Online, so optimal for several locations/global businesses.
- Well positioned for small business that is starting to grow and with a need for starting to diversifying roles.



- Includes a full accounting, CRM and inventory system.
- Online solution.
- Quite expensive compared to other standalone e-commerce systems.

COMPETITORS: QUICK AND EASY(ER) SOLUTIONS

The programs in this group provides the best fit for most startup companies. They are simpler applications providing a good amount of core accounting functionality but leaving out a number of features normally not required by startups. In other words they allow for easy entering into the world of accounting for people with limited experience of bookkeeping.



- CR, integration and automation focus.
- Aims to provide intuitive online accounting software for small business owners.
- Executive Deputy Chairman - Raj Patel.



- For free and very easy to use.



"In the UK, the best product by far is FreeAgent. I've used it for a couple of years for four companies having migrated from the nightmare that is Sage. I cut the time it took me to do my accounts to an hour a month and the VAT return is done in minutes with online submission".

Kevin Partner, IT startup entrepreneur.



- US market.
- Consumer oriented.
- For free.



- Targeted at the Scandinavian/UK market.
- Quite big market share: 15 000 customers, 1000 accounting partners across 60 countries.



- Cloud based, global solution.
- Optimized for Ipad.
- Doesn't include payroll, time billing or extensibility.



- Unique solution offering human bookkeeping services.
- Does not fully replace a bookkeeper if using accrual methods of accounting.



- Microsoft on server solution.
- Does not include a payroll, time billing modules.
- No mobile tools.



- Optimized for Ipad.
- No easy way to import data from other accounting applications.

Figure B3-B4. Competitors category 1 & 2.

COMPETITORS: VERY BASIC SOLUTIONS

This group of programs is aimed for businesses that simply want a tool for payments or to track things like incomes and expenses.



- An invoicing program.
- Integrates well with many web based bookkeeping software.
- Smartphone optimized.
- No import of bank transactions supported.



outright

inDinero



- Very basic, but simple to use if you don't know bookkeeping
- Including Excel templates.

"If you are super early stage then just use Excel - a well designed spreadsheet is great for keeping track of AP and AR, which is all you really care about anyway!"



- Easy integration with website.
- Provides payment services, management of orders etc.

Zoho Books



- Invoice and expense-tracking system.
- Affordable.
- Smartphone optimized.
- Free version with limited number of invoices.

MoneyBird



- An invoicing program and not truly a bookkeeping program.
- Targeted at the dutch market.
- Smartphone optimized.

COMPETITORS: FOR THE DUTCH MARKET

EasyAdmin



- Bookkeeping in Excel.
- For easy VAT-return registration and customer overview and some statistics.

- A simple bookkeeping for free-lancers.
- Focused on hour registration, production costs etc.
- Also includes the possibility to link your administration to an accountant to check your data.

ficsbook.nl



BookNuunster



- Developed for entrepreneurs doing the bookkeeping by themselves.
- Demands some pre-knowledge and understanding for accounting principles.
- Includes an extensive support system.

ACUMULUS



- A very easy usable program made for entrepreneurs, not accountants.
- Demands very little pre-knowledge and uses a language the inexperienced will understand.
- The system guides the user in making the right decisions to compile with rules and regulations.



- Website of the year 2010.
- Allows for easy import from all major banks.
- Provides clear overview of financials via diagrams and use notification emails for reminders.

WinBooks



- Aims to provide easy overview of most important financials.
- Provides electronic invoicing.
- Both on server and online solutions.

SnelStart



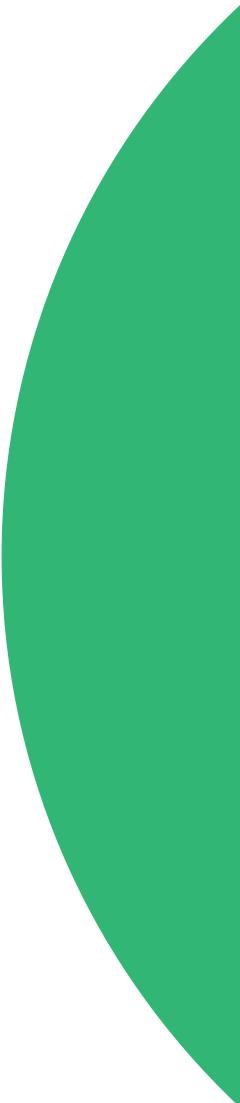
- Target small self-employed businesses.
- Does not require any pre-knowledge.

Asperion



- Targeted at medium sized businesses.
- Both price and needed pre-knowledge indicates a focus on the users in need of a bit more extensive solution.
- Includes an installation wizard and warning/support system to help users avoid mistakes.

Figure B5-B6. Competitors category 3 & 4.



RESEARCH METHOD

Being a designer means creating products that fits into the lives and needs of the people using them. The foundation of an innovative human-centered design process does not only include a skillful design team but also a great amount of knowledge about the context and product use (Sleeswijk Visser et al, 2005).

For this, information about user contexts and the interactions users have with products needs to be gathered. User research includes not only interviews and generative sessions but several iterations of orientation and focus, preparation, development of materials and recruitment. This chapter presents the research process; the steps

taken, the participants involved, the methods and materials used, the raw data gained and the analysis made.

Research questions

The methods used in the research may seem less formal than traditional techniques, and therefore relies on well-formulated goals and clear directions for the exploration. A number of questions guided the research. The questions, derived from literature research and interviews performed, are clustered in three groups according to the main research goals described in the introduction chapter, see figure C1.

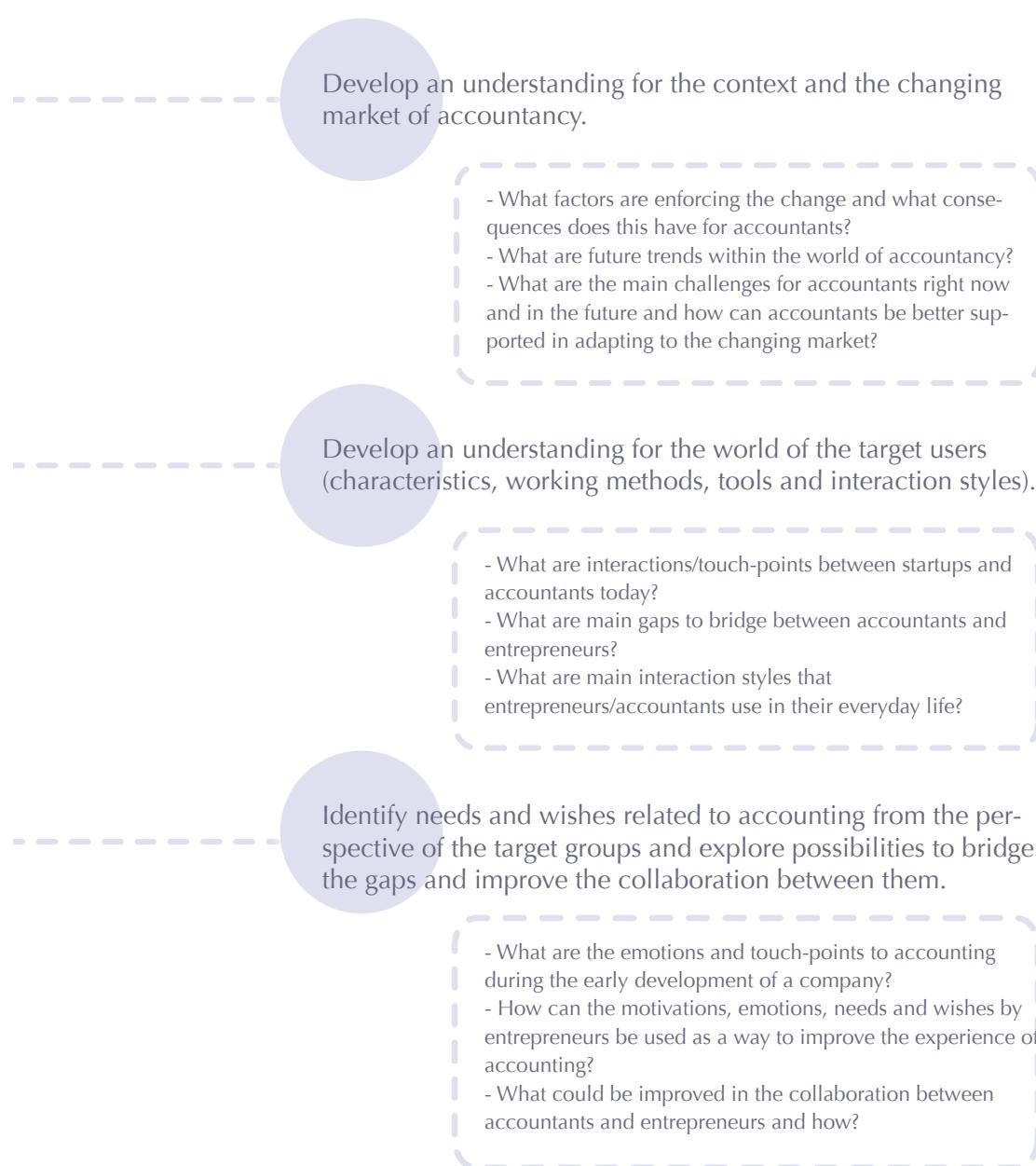


Figure C1. Research questions.

SEMI-STRUCTURED INTERVIEWS

The technique is generally defined as a qualitative research method with the purpose of providing specific information from a defined population target. The interviewer is guided by a predefined interview framework with open-ended key-questions. The initial focus of the interview is often on general topics and more detailed questions are introduced with time. The method allows for flexibility in terms of detail and focus for the interviewer as well as the interviewee. It motivates a two-way communication needed when discussing more sensitive subjects. Semi-structured interviews often provide a deeper knowledge and understanding for underlying reasonings than more structured methods (FAO corporate document repository).

Semi-structured interviews

The study included 10 semi-structured interviews with internal (within Exact) and external participants. In order to provide a useful orientation within the subject of the project - three groups were identified and involved in the initial research: Accountants (3)*, Startup entrepreneurs (3)** and Other (4), i.e. people with knowledge of working within the field of accountancy and finance.

* Accountant here refers to accountancy professionals from Accountancy and Administration firms within the Exact network.

** A startup is defined as in (14): A business that is new (not older than 5 years), active and independent.

Interviewees

Participants for the interviews were recruited via the network of the author and by the help of Exact's network and employees. The startup entrepreneurs all participated in the incubator program Rockstart in Amsterdam. A previous bank manager and three managers from Exact were included, one of which used to work as an accountant and all of them with many years of experience from working within the accountancy sector. A previous manager of Exact and initiator of Exact Online, previously managing an Accountancy firm and now the CEO of a startup company was also interviewed. A lot of insights were gained during interviews with two accountants from startup focused accountancy firms in

CONTEXTMAPPING

Contextmapping is a rather new generative (user) research technique originally introduced by Sanders (1992) in the early 1990s to provide knowledge about what users know, feel and dream about specific interactions. The technique uses playful and creative materials and exercises to trigger reflection in the participants. The aim is to inspire and create an empathic understanding for the user and his/her context early on in the design process. Sensitizing materials (comparable to Cultural probes (Gaver et al, 1999)) are used as a way to enable self-reflection and prepare the participants for creative sessions where the main insights are collected. Contextmapping studies typically include the following sequence of steps: preparation, sensitizing of participants, group sessions, analysis and communication (Sleeswijk Visser et al, 2005). For more information about contextmapping and generative techniques see references and Appendix 10, Generative techniques.

Amsterdam and Delft. Further participant introductions can be found in Appendix 9.

Contextmapping studies

Three generative sessions were done with the two target groups. One session with accountants (4) and two sessions with entrepreneurs (10), focused on early and later stage startups (according to the definitions described on the previous page).

Contextmapping participants

When approaching accountants the selection was based on the choice to target the more innovative group of accountancy professionals - a decision derived from the assumption that more innovative accountants are likely to provide more insights for the project. The search criteria was defined as follows: Accountants with an open-minded perspective on innovation and change with some experience from collaboration with and accounting work done for startups/small companies.

Concerning the selection of startup entrepreneurs the researcher aimed to put together people with mixed backgrounds and different kinds of startups in various stages of company development. Richer insights can be expected by involving the very beginners and adhere to their needs as well as the more experienced entrepreneurs able to share more elaborated thoughts on the subject. The following search criteria was defined: Innovative, internet minded entrepreneurs with some previous experience from setting up/handling (in one way or another) accounting for startups.

Brief participant introductions can be found in Appendix 9.

Accountants were recruited via the network of accountants participating in innovation panels organized by Exact. Out of 30 contacted accountants, four participated in the session.

Startup entrepreneurs were recruited via several channels. The author's own network and contacts via Exact employees were used as well as connections established during participation in startup events such as the Mini-Demo day at Rockstart (incubator in Amsterdam) and the entrepreneurship forum arranged by YES!Delft (a high-tech entrepreneurship center in Delft). Participants were also found through two entrepreneurial hubs: YES!Delft and de Zuster in Delft (a business incubator for creative talent). Posters and flyers were distributed and individual invitations were emailed to targeted companies, for details see Appendix 16, Overview research materials.



Figure C2. Startup entrepreneurs and mentors at the Mini-Demo day, Rockstart 2013.

In total close to 50 startup entrepreneurs were contacted of which ten agreed to participate in the generative study. The participants were divided in two groups of five entrepreneurs depending on the development phase of the startup.

NUMBER OF PARTICIPANTS

According to Sleeswijk Visser et al (2005) 4-6 participants per session is a good amount. A group of four is big enough for a proper discussion and group feeling to be established, while a group bigger than six people might become too big to be able to provide attention to each individual.

Sensitizing

Sensitizing is an important part of the context-mapping process. The aim is to provide insights and motivate and prepare the participants for the session by making them reflect on the focus of the study in their own time and environment. The packages consist of small daily activities/exercises preferably handed over in person to the participant one or two week(s) before the session. By meeting in person the researcher can properly explain the tasks and he/she furthermore gets a chance to develop a first impression of the participant.

Sensitizing accountants

The accountants were sensitized via a partly interactive online survey distributed about five days before the session date by the help of the survey software Qualtrics (www.qualtrics.com). This format and method was chosen with the user groups limited amount of time and traditional nature in mind. More information about the survey and the questions included can be found in Appendix 11, Sensitizing accountants - survey questions.

Sensitizing entrepreneurs

For the startup entrepreneurs the sensitizing allowed for a more experimental and creative execution. Five days before the session they were provided a small physical package (figure C3) that included a booklet with four daily tasks, candy, stickers, colored pens, a welcome message and a small reminder of the session date, time and location. Each task was designed to be short, fun and useful for the research. A simple, playful style was used to motivate the participants to be creative with the materials. For details on layout and tasks see the full booklet in Appendix 12, Sensitizing entrepreneurs - booklet & daily tasks.

Sessions

During the session, participants get together to do two-three generative exercises. By the help of instructions and creative materials, artefacts are made that express the participants thoughts, feelings and ideas. The stories behind what is being made are told in a presentation and discussion-round after each exercise.

The success of a generative session depends highly on the preparations made on beforehand. For the sessions detailed planning documents were created (see appendix 13, Facilitation document - User research) including information about all participants, a task-list for preparing the room, all materials needed, a clear time-schedule, all activities and texts for introductions, explanations and examples of assignments needed as well as follow-up questions to spark a discussion. The document also includes additional plans (a plan B and C) for each assignment in case needed. A facilitator must be prepared to improvise - good preparations are important but as learned by experience far from all situations and problems arising in a creative session can be accounted for on beforehand.



Figure C3. Sensitizing materials for entrepreneurs.

All materials were pre-arranged and cameras and sounds recorders (multiple for security) to record video and audio were installed and located before the session. In the case where a colleague was attending, spectator documents were prepared for notes to be taken.

Session Procedures

A general guideline for user research is to start easy and by time evolve into more detailed and complex matters. This approach was also used when designing the session structure, see figure C4. The session starts by a short introduction where the facilitator introduce the research and the session. This is followed by an introduction round where the participants get to know each

other and get accustomed to sharing information with each other. More detailed descriptions of the session procedures and research materials can be found in Appendix 14, 15 and 16.

Capturing results

The user research generated the following data:

- **Interview results:** Audio recordings were saved digitally and transcribed throughout the project as they were conducted.
- **Survey results:** The survey software used (www.qualtrics.com) provides for easy download of the survey results in various formats. An excel text file providing all questions and replies was downloaded and saved for later.

- **Daily tasks booklet:** The sensitizing booklets were collected from the startup entrepreneurs during the sessions and saved digitally as well as physically.
- **Sessions:** The discussions and stories told during the sessions were recorded on video as well as audio and saved digitally for further use. The video materials were transcribed by the help of Inqscribe (www.inqscribe.com).
- **Session materials:** The artefacts, collages etc. made during the sessions were collected by the researcher, digitized and saved for further analysis.

All context mapping materials were analyzed directly after the sessions were held.

Session procedure accountants

- Introduction (facilitator)
- Warm-up/Introduction round (participants)
- Assignment 1: Problem Orientation - the Changing Market

Pie-chart templates are used to map out the activities from which the participant's firms get their turnover today and (in a second pie-chart) 5 years from now.

- Presentation round 1
- Assignment 2: Definition of problem space, brainstorm & clustering

Groups are formed and main factors influencing the changing market are defined and written down on post-its. In a short clustering exercise the post-its are organized in different categories.

- Assignment 3: Development of strategies

A template is provided with room for 3-4 randomly chosen post-its (i.e. factors) - one from each category. By combining factors, scenarios can be found and based on these - strategies for how to solve/react/handle the changes in the market are developed.

- Presentation round 2/Wrap-up

Session procedure entrepreneurs

- Introduction (facilitator)
- Warm-up/Introduction round (participants)
- Assignment 1: Problem Orientation - Collage (My view on accountancy)

Individual collages are made describing the participants view on accounting. Blank A3 papers are used as well as a number of images and random words to spark the creativity.

- Presentation round 1
- Assignment 2: Making of Startup Cycle Map

A group assignment with the goal to create a so called 'startup cycle map' mapping out the stages, emotions, financial touch-points, problems and needs/wishes throughout the development of a business.

- (i) The startup cycle
- (ii) An emotional time-line
- (iii) Finance touch-points
- (iv) Problems/Opportunities
- (v) Improvements/Needs/Wishes

- Presentation round 2/Wrap-up

Figure C4. Session procedures.

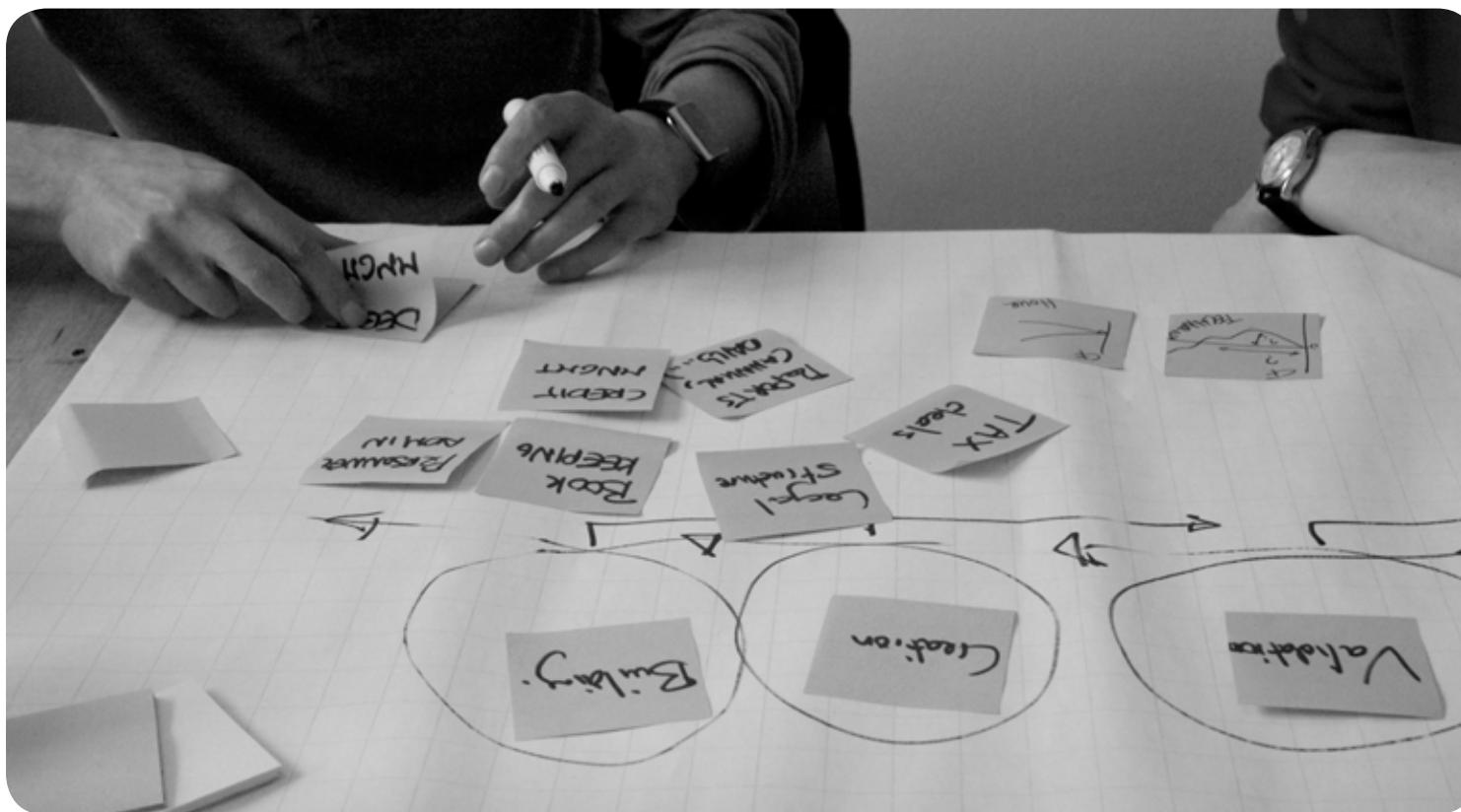


Figure C5-C9. Pictures from sessions.

Analysis

This section briefly describes the analysis process; the steps taken and the decisions made for interpreting the data and presenting the research outcomes.

The results from the interviews and context mapping studies were studied together. The interview transcripts were transformed into a first set of illustrations to communicate the early research outcomes. The sensitizing results were summarized in a document including the information (quotes) per participant. The session transcripts were studied in detail and interesting paragraphs were highlighted. Mind-maps were created to structure the information gained from the artefacts made in the sessions. To each paragraph an interpretation was added and the insights were collected on different colored post-its (one color per target group) to enable easy differentiation later on.



Figure C10. The analysis process.

When all session insights were transformed into interpretations on post-its, they were clustered in groups with regards to subject, user type etc. Big clusters were with time divided in smaller and smaller collections. When a level of enough detail was reached the groups of post-its were organized on a large wall. This provided the overview needed and connections, relations and frictions could be identified by playing with dif-

ferent positioning of the post-its. A final structure was decided upon that guided the further process of communicating the outcomes and design a storyline for the insights gained.

Communicating the outcome

The final step of the contextmapping process involves communicating the results to the design team or to the client. Formally written reports often fail to effectively convey inspiration. For this and for enhancing the understanding for the end-user, more interactive techniques can be used (Sleeswijk Visser, 2005).

A visual approach was used when developing the storyline for the outcomes. Associative illustrations were made to describe the information from the post-it clusters. The visuals provided for an easy overview and flexible working methods. Changes could easily be made since the story was built in parts, with time including more and more detail.

Texts were developed to support the understanding of the illustrations. Final versions of these texts and illustrations can be found throughout the sections in the Research outcomes chapter. The illustrations made were also used as a communication tool when presenting the main insights to the supervisory team and within Exact.

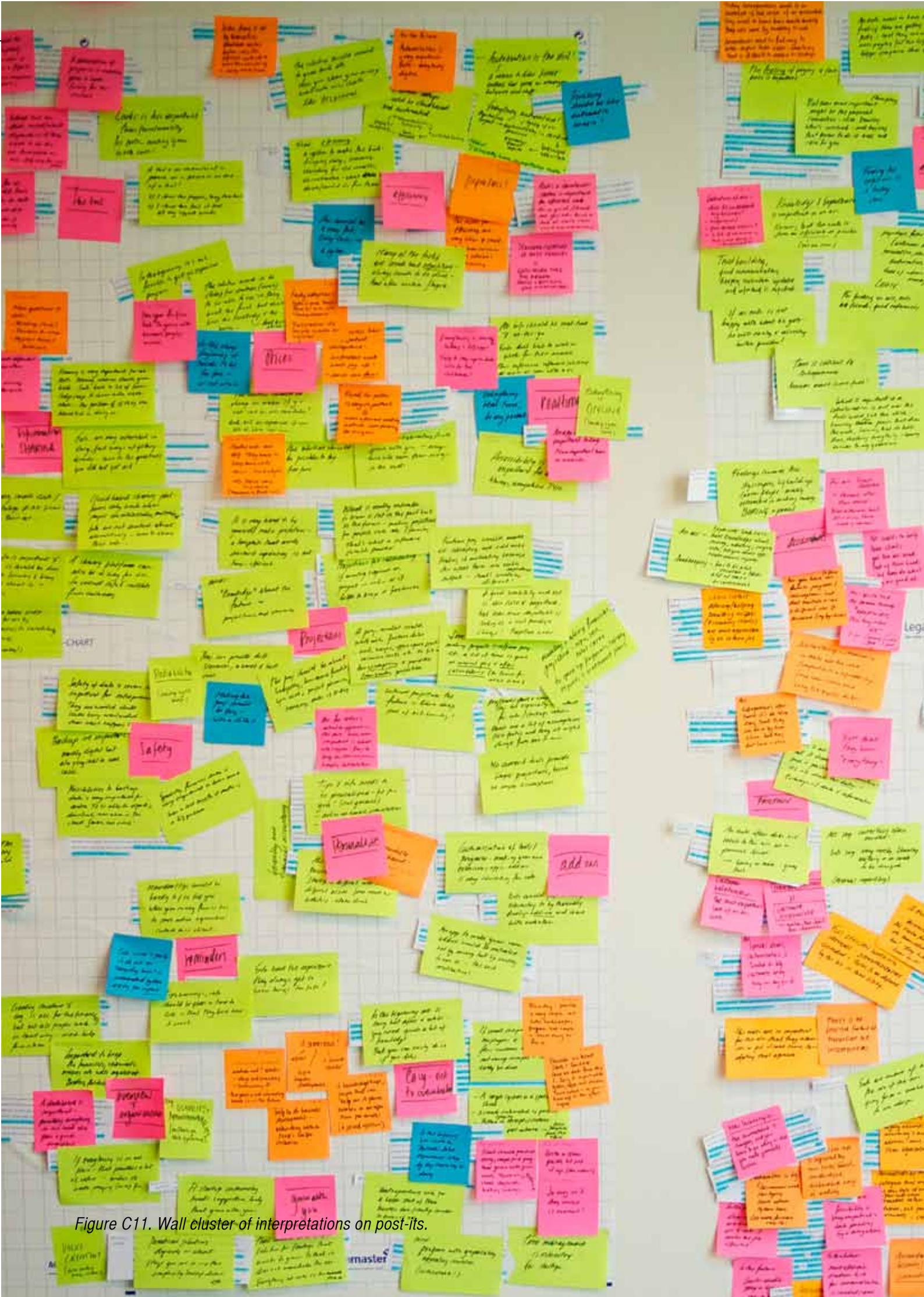
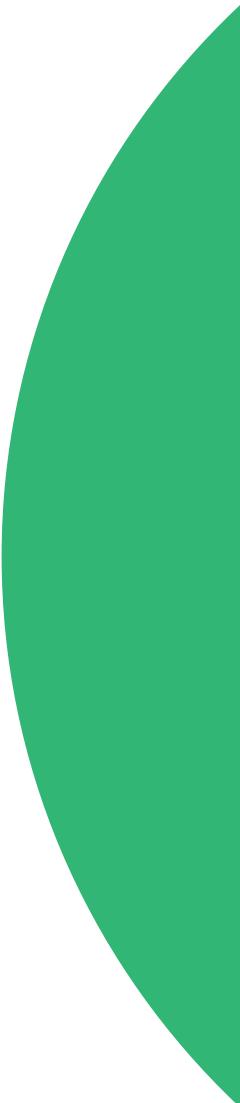


Figure C11. Wall cluster of interpretations on post-its.



RESEARCH OUTCOMES



The research outcomes are told in the form of a story. The aim in this chapter is to describe a coherent picture of all main insights regarding the changing market of accountancy and the needs and motivations concerning accounting from the view of the target users, accountants and startup entrepreneurs.

The research outcomes provide the base for the concept development. Section one includes a problem orientation and looks at accountancy from the perspective of the accountant; future challenges and trends. The second section presents financial touch-points and the development of needs emotions and motivations regarding accounting from the viewpoint of startup entrepreneurs.

Problem orientation

- the changing market and its consequences

Two main causes become prominent when investigating the changing market of accountancy: (1) recent years' technology development and (2) a new generation of demanding customers such as startup entrepreneurs. The user research has shown that, in a rather short period of time the playing field for Accountancy and Administration offices (A&As) changed dramatically. Rapid

advancements are forcing A&As and its employees outside their comfort zones. The accountancy market is becoming increasingly competitive, customers more independent and A&As are facing times of decreasing revenues. The following sections provide an overview of the driving forces behind the changes and their consequences, new market opportunities as well as a brief description of the challenges accountants face when entering the startup market.



Exact is seen as a threat rather than a relief...

The technology push

The world is generally becoming more and more technological (as discussed in the background chapter introducing Generation Y interactions) - and so is the field of accountancy. An interesting paradox can be found connected to this. We can call it the accountants "hate and love relationship" with technology and innovation. As understood by speaking to a number of accountants - the emotions towards the changes in the market are diverse. Many fear the future and hesitate, while others see opportunities and act proactively. The accountants are aware of the possibilities the technologies bring but also fear how innovations brought forward by companies like Exact reduce the need for certain accounting activities and force them to change their ways of working and adapt to new work roles.

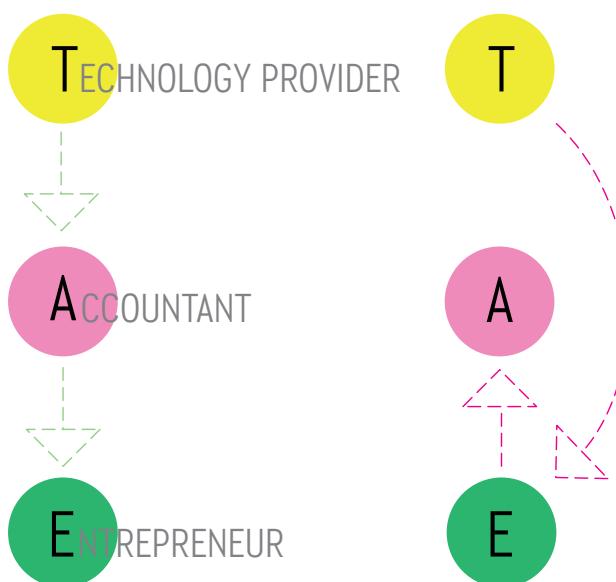


Figure D1. The technology push pose a threat to the role of accountants today. The push might come directly from the software providers (left) or via the entrepreneurs (right).

In order to stay relevant in a changing game - players need to stay updated on the rules. When the world changes - accountants must too. Many A&As are practically forced to invest in modern technologies - hoping that it will pay off long-term in increased work efficiency. By the help of modern technologies, A&As can provide their customers with more affordable price models and efficient processes. Firms that decide not to modernise are easily overrun by competitors likely to attract customers by providing a "better service

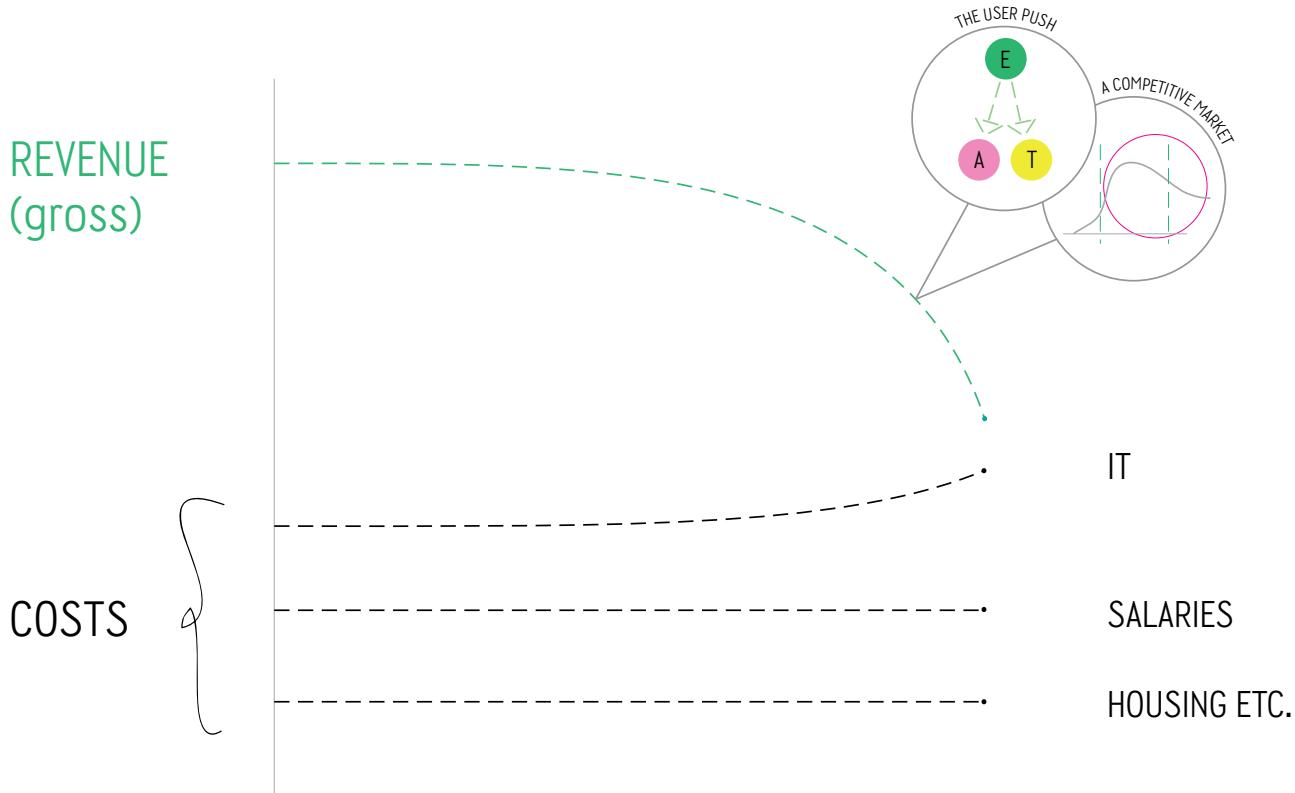


Figure D2. The cost & revenue structure for A&As.

for a better price". An A&A can only ignore the changes for so long. At one point their clients are likely to request innovation or else decide to leave.

The costs structure

The costs structure for A&As are estimated to stay more or less the same. IT costs may increase a little due to modern (more efficient and advanced) online subscriptions generally being more expensive than more traditional one off licences. New technologies enable A&As to do more work in less time which in the end means that less people are needed in the 'hands' sector (see explanation in the Background, section Entrepreneurs and Accountants). This would lead to decreasing office and employment costs. The employment costs might however stay constant despite the decreasing number of employees since the future is likely to bring more advising activities and therefore an increased demand for higher-level employees.

Revenue and the user push

While the costs might stay quite stable - the in-

come (gross revenue) for A&As decrease, most importantly due to a new type of well-informed clients being close to self-supportive when using technologies such as Exact Online that makes accounting easier and cheaper. People do more themselves and are reluctant to pay as much for bookkeeping services as before. As explained by Nijdam (2013) the bills of an accountant are often perceived as blurred and expensive - it is not clear what is being paid for and how this provides value - which drives a need for lower prices and more transparent cost models.

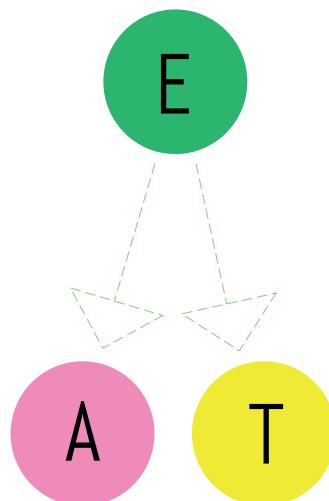


Figure D3.
The user push. New user demands pose a challenge to accountants today.

Decreasing revenues can also be explained by looking at the customer life cycle (see figure D4). Many entrepreneurs decide to terminate their business at the age of 60-65, and nowadays it might be hard finding someone to take over. Furthermore, in times of recession many businesses end up bankrupt. The total (potential) client base for A&As becomes smaller, leaving less businesses for the many (possibly too many) A&As to fight over.

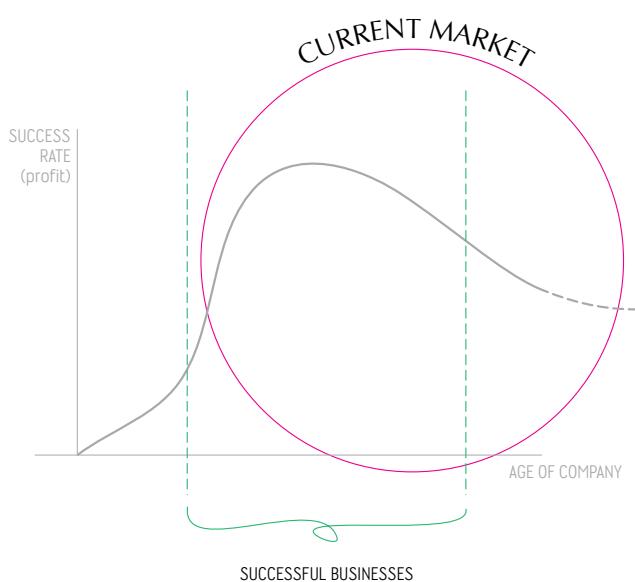


Figure D4. The customer life cycle.

Consequences

A&As cope by reducing costs. An obvious consequence is reducing staff. Some A&As also try to save money by moving into smaller offices, collaborating within regions and through mergers - sharing competence and costs. A&As are becoming increasingly bigger, a trend clearly connected to the changing market (Nijdam, 2013). Many firms see a need to increase their knowledge base due to decreasing work in the hands section. The future for many A&As relies on extending their business models by including more specialized and higher level activities (see figure D5). Firms

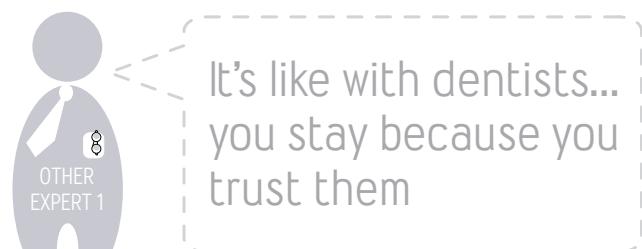


of the future must be able to provide full-service packages. This is a challenge especially for the smaller firms, as they have to look for collaboration opportunities to match and extend their total range of competencies.

In conclusion, the technology and user push decrease the average revenue per customer while the costs increase or stay roughly the same, depending on cost saving initiatives - leaving the A&As with decreasing profits of a few percent per year (Kwartaalbericht Zakelijke Dienstverlening, 2013). A&A's need to react but what else can they do to survive?

New market opportunities

When discussing new market opportunities for the accountancy sector one quite remarkable thing should be taken into account. Competing on price is generally not a good strategy for this sector. Entrepreneurs are quite unlikely to switch firm after having built up a relation of trust and knowledge regardless of a possible financial advantage. Any entrepreneur wishes to pay as little tax as possible. An accountant can help by applying laws and regulation optimally. There are many ways to do accounting using more or less creative methods. This is not a black and white business and it sometimes includes walking on the edge of what is to be considered legal.



When entrepreneurs and accountants work together, they discuss these things and with time a valuable relationship built on trust develops. During years of getting to know each other, the accountant learns about how the entrepreneur does business but also develops an understanding of the business and its figures. Switching accountant has a steep price, often considered too high by the entrepreneur.

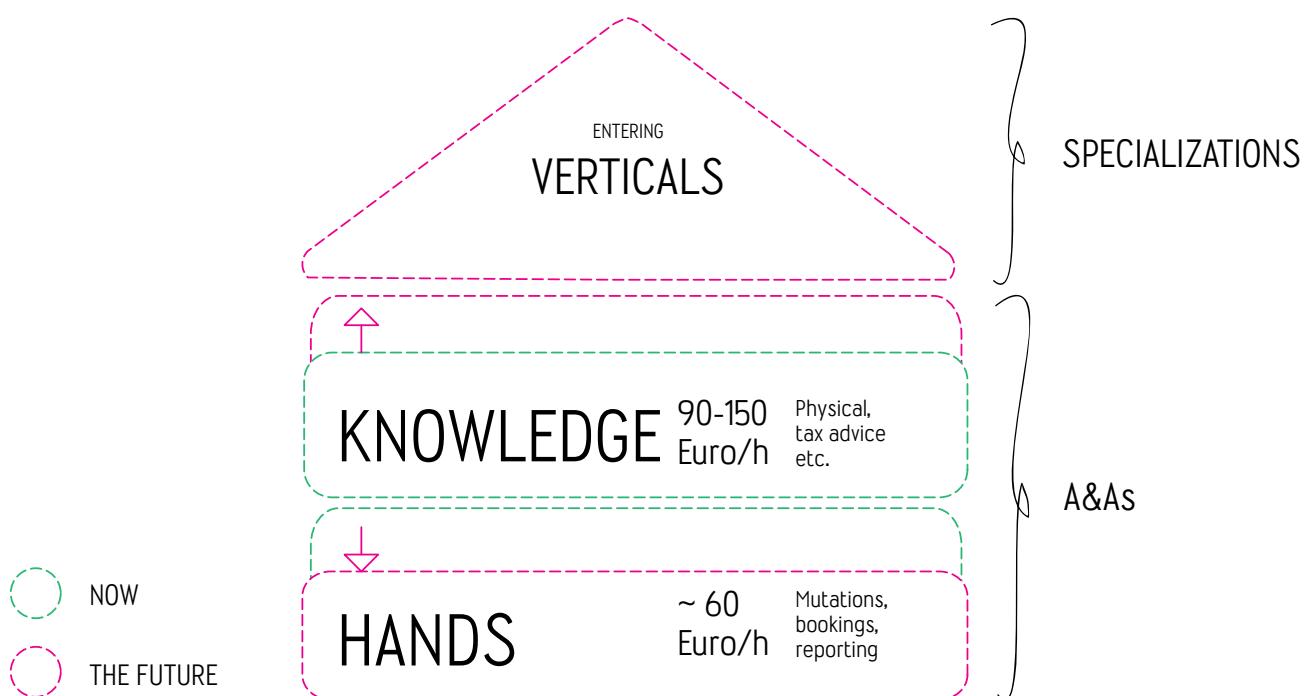


Figure D5. The changing market of accountancy.

This implies only two opportunities for A&As to increase their customer base: (1) find dissatisfied customers and lure them over from a competitor or (2) fish for fresh ones - startup entrepreneurs (see figure D6).



Working with ducklings

The new generation of entrepreneurs is special in many ways. They are brought up in a world filled of opportunities and technology innovation - making them accustomed to an IT based way of living and working - multitasking, always being online, using flexible communication methods etc. are the norm. They are confident and have a lot of knowledge - never hesitating to use internet for finding answers to the things they do not know. Startup entrepreneurs also generally have access to very small - if any - funds. Since their financial situation is quite straightforward,

many startup entrepreneurs can (and have to) do the bookkeeping by themselves in the beginning. A consequence for A&As entering this market is (at least initially) less work and decreased income per customer, compared to more established connections.

The technology and user pushes bring big changes in a short period of time. A&As need to adapt not only in terms of what they do, looking at new possibilities to add value and support startup entrepreneurs, but also in terms of how they do it by learning to do business more in line with new customer demands.

This presents a great challenge for accountants in general and especially for the more traditional ones. The future requires a 'new kind of accountant'. As discussed in the Background chapter and identified in the research, many accountants are conservative. Quick adoption to change is not in line with their nature and many experience that this need for change is forced upon them. It seems safe to assume that the future will bring even bigger changes to the market. A number of accountants will end up unemployed due to their inability to quickly react to new demands.

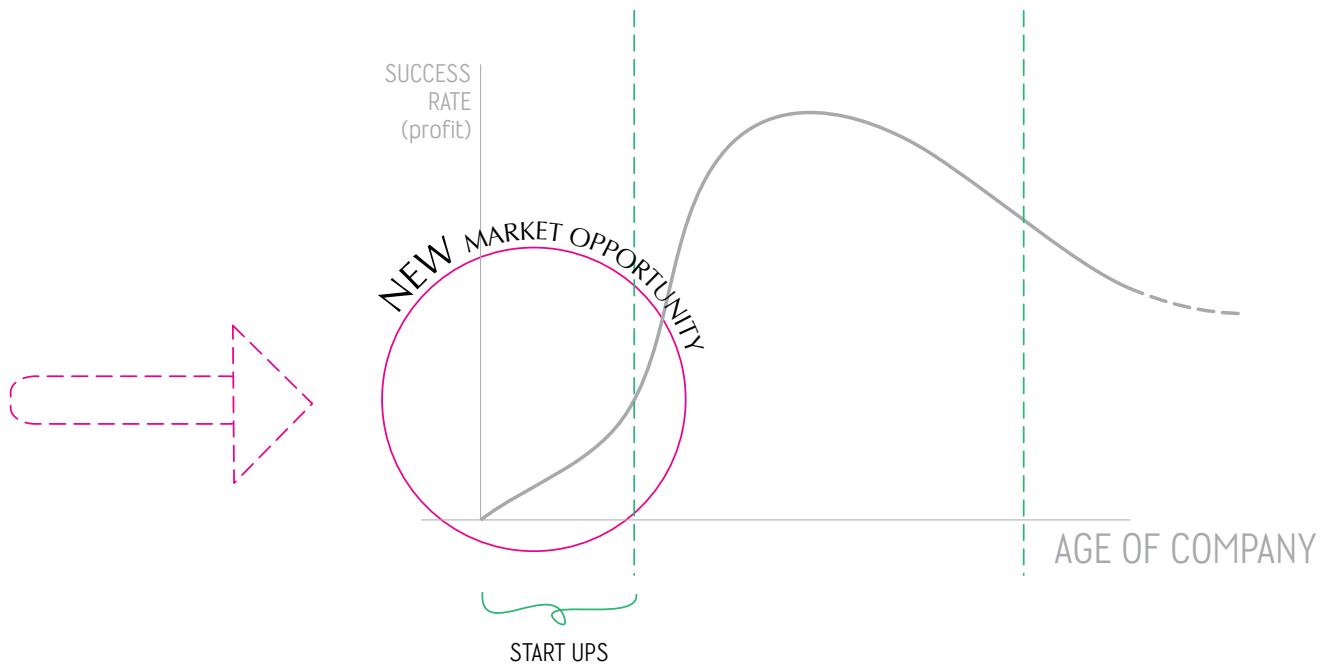
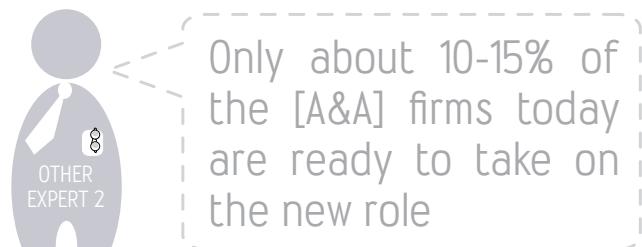


Figure D6. New market opportunities.

Previous research on the characteristics of accountants, supports these considerations. Briggs, Copeland and Haynes (2007) indicate how the accountancy workforce and educational institutes have not yet managed to adapt to the new work roles of accountants. Concerns are furthermore raised whether they will be able to do so - can the current workforce live up to future demands of more extraverted and team-oriented work styles?

Already in 2000, AICPA - the American Institute of Certified Public Accountants - presented a project to help the workforce of accountancy prepare for the changes in the market (American Institute of Certified Public Accountants, 2000). The top-five core competencies needed for the future were identified. Among these were: skills in communication and leadership, sensitiveness and responsiveness to changes in client and market needs and an increased ability to interpret a bigger spectrum of financial and nonfinancial information. In short this requires big 'changes in the nature of being an accountant' (Wheeler, 2001). The results from a five-year study of accounting students' preferences done by Briggs, Copeland and Hayes (2007) shows that accountants are generally introverted, detail-minded, very logical and structured people that resist rather than

embrace change. Concerns are raised suggesting that the workforce of accountants may lack the traits needed. The risk is that accountants will become increasingly dissatisfied in their profession as their work environment continues to change. A mismatch in personality traits and work styles might lower the performance and satisfaction for accountants.



The challenge

The challenge for the future of accountancy and collaborations between accountants and entrepreneurs lies in matching two very different kinds of people. One traditional and the other visionary but both stubborn. As a small step on the way to understand the differences between the two groups, gaps and touch-points are clustered in groups of: (1) Characteristics & Personality, (2) Ways of working & Interacting, (3) Expectations & Understanding, (4) Collaboration & Communication and (5) Knowledge & interest.

ADAPT OR DIE THEN I'D RATHER DIE

Figure D7. Some accountants are reluctant to change.

An extended understanding for these gaps and touch-points will support the development of ideas for how to improve the situation for the accountants (by providing easier adaptation to new user needs) and for the startup entrepreneurs (by providing a better experience of accounting and collaborating with accountants).

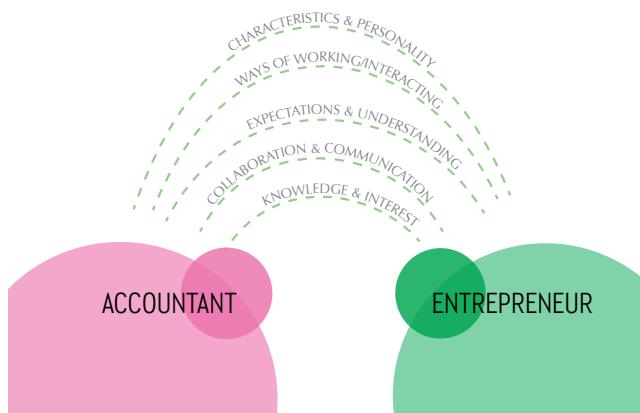


Figure D8. The five gaps between accountants & entrepreneurs.

Characteristics & Personality.

A big difference between entrepreneurs and accountants exist in their personalities. This is supported by the Big 5 personality trait research presented in the Background chapter. Entrepreneurs show high scores for Openness, Conscientiousness, Extraversion, Emotional Stability and low levels of Agreeableness. This is very different from the accountants that score significantly lower on all five dimensions except for Conscientiousness which is considerably higher.

Generally speaking, accountants are traditional and problem oriented - especially when compared to entrepreneurs that are known to be visionary and solution oriented. While accountants are very accurate and detail minded - 'simply' wanting to do a good job, startup entrepreneurs often prove to be deeply passionate about what they do - highly driven and with a big need for self-fulfillment. The work-life also differs between the two: accountants in the research described a rather stable and uniform day-to-day work while entrepreneurs constantly deal with and thrive on high levels of unpredictability, fast changes and a diverse and explorative work.

Differences in perceived characteristics between the two groups can be seen in figure D9-D10. The illustration presents associations made to accountants and entrepreneurs, gathered throughout the user research. Accountants are associated with numbers, rules and keeping track of things, being 'boring' but necessary and important, expensive, 'career people in suits'. This picture is rather different from the associations to entrepreneurs as focused, busy but poor adventurers, always - stubbornly - moving on and (sometimes naively) seeing nothing but opportunities.

Ways of working & Interacting

Also in ways of working, many differences between the groups can be found. Accountants are often stationary and focused on structure and order. They use a few well tested software programs that they are accustomed to and mainly communicate via mail, email and telephone. They stick to rules and standardized processes and work more or less individually. Entrepreneurs on the other hand often work more independently in terms of locations, people and tools. They strive to find the utmost optimal solutions and use a big variety of software programs and applications - all of them with a specific purpose. In terms of communication more specialized and modern methods are used such as Skype conference calls, Google hangouts and Whatsapp chats. For many first-time entrepreneurs - no standardized procedures are used but rather a 'trial and error' approach, 'designing as they go'. Startup entrepreneurs often work in small teams with mixed skill-sets.

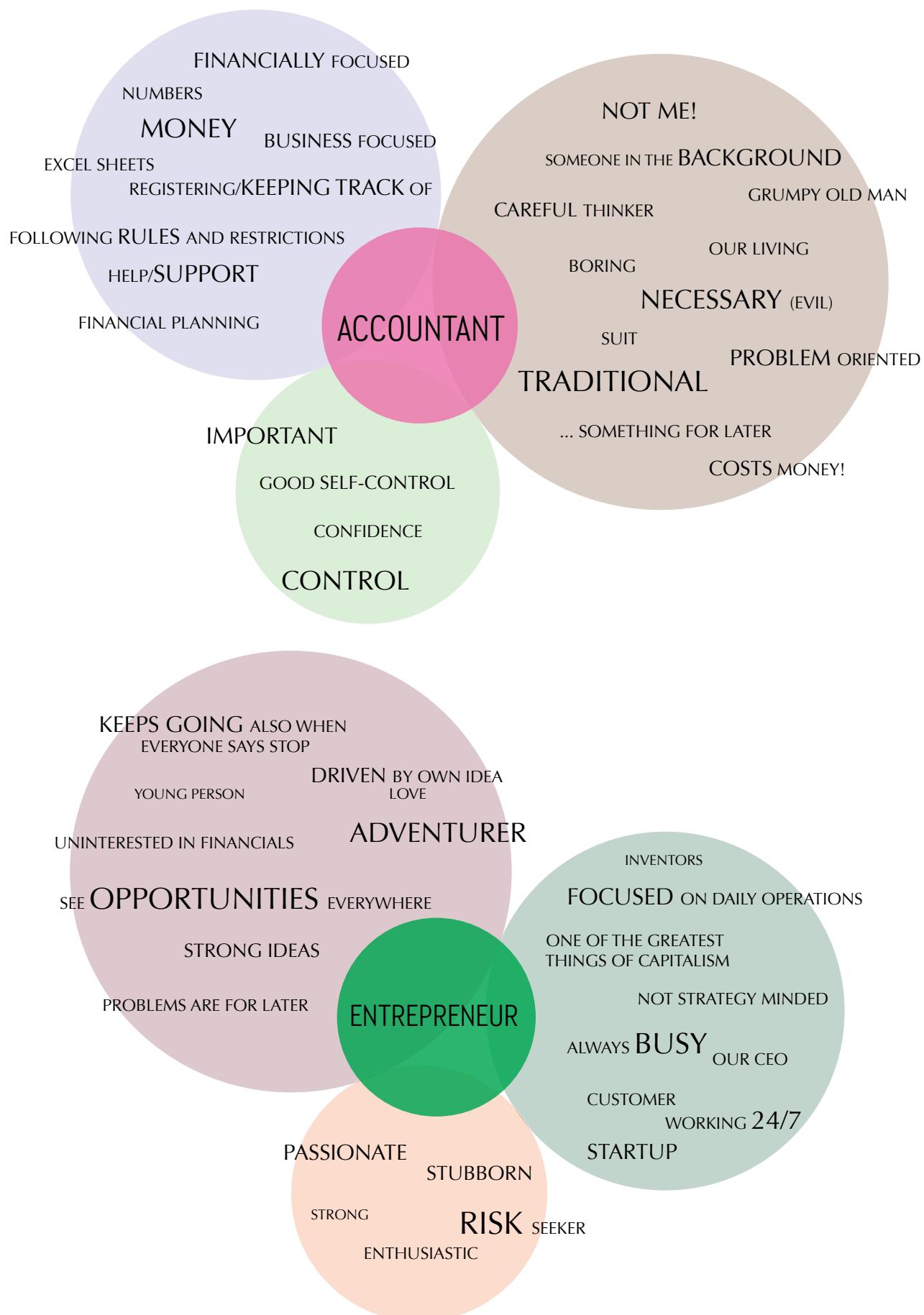


Figure D9-D10. Associations made to accountants (top) and startup entrepreneurs (bottom).

One thing accountants and startup entrepreneurs have in common is their focus on efficiency. Especially group 1 accountants (defined in Background, Entrepreneurs and accountants) see optimization and efficiency as a way to attract new (and more) customers by providing lower prices. Fixed price models are also part of the changing user demands which makes it even more important to develop efficient ways of working. When considering tools, the main focus for accountants is good functionality. For startup entrepreneurs aesthetics also play an important role, but similarly to the accountants they prioritize the functionality very high.



We go from hourly work to a fixed price, that means that inefficient work won't pay off. Normally this is also turnover, but not anymore

Figures D11-D12, provide a comparison of the tool and software use between the two groups. Entrepreneurs use many different, modern and diverse tools as compared to accountants with a few, more traditionally looking favorites.

Expectations & Understanding

The differences between the two groups become very interesting when comparing their expectations and ways of understanding. Both accountants and entrepreneurs believe themselves to know best. As said before, a strong personality trait they have in common is stubbornness. Especially in times of big changes this might have a great impact on their ability to collaborate effectively.

The accountants involved in the research expressed a need for strict rules to be defined to increase the work efficiency. According to the accountants - they know best how to define these rules to the benefit of both groups. Startup entrepreneurs however became startup entrepreneurs for a reason - they want to work according to their own rules - not anyone else's. This can be a major friction point in collaborations between accountants and entrepreneurs.



Well, that's not being cocky but we know how we can work together in a way that is efficient for both of us, which makes it better for them [the client] - its less pricy and more interesting for output. So yeah, we define the rules, because we know the business

One might think that money is a main motivator for startups in choosing an A&A firm. But what is more important for the startup entrepreneur is the personal 'click'. The personal relationship is the main motivation - the entrepreneur wants to feel that he/she is 'special' and is being treated as such.

A main problem in understanding between entrepreneurs and accountants, begins with an sometimes too narrow outlook from the accountants side. Accountants participating in the user research repeatedly expressed how they 'know their target group and their needs very well' - so well that they might not even care to ask. This approach in combination with differences in personality leads to entrepreneurs having a hard time relating to their accountants on a personal level, even though this is exactly what they wish to do.



My accountant knows nothing of my company... It is hard to get proper, trustworthy advice and that is expensive

Many entrepreneurs strive to get more involved in their business financials. They do more of the accounting themselves and mistakes are easily made during this process due to lack of knowledge and experience. Often especially more traditional accountants tend to see this as an extra hassle and a problem rather than an opportunity to make business.



I have a few clients where they do it all by themselves and it gets more expensive than if we would do it all... because we have to make so many corrections that it takes more time and energy than if we would have done it from start!"



Figure D11-D12. Software use accountants (top) and startup entrepreneurs (bottom).

Collaboration & Communication

Also in terms of collaborating many things differ between the two groups. As described before, use of tools for communication and collaboration differs greatly (for examples see figure D11-D12). Entrepreneurs are often strong communicators and are used to using social media and networking to create many and close collaborations. They are well accustomed to fast, informal ways of talking to each other, always online and with 'everything they need in their pocket'. This is a more or less unknown world to many group 2 accountants not so accustomed to multitasking and new ways of interacting online. Group 1 accountants often see opportunities in adjusting to the new collaboration needs of startup entrepreneurs. They mean that more information can be provided by working digitally which in the end benefits both the work and client-relation.



Loyalty is the absence of something better!

It is also obvious that accounting is becoming more and more of a commodity in today's society. Startup entrepreneurs are less loyal and feel less obligations towards accountants. Highly demanding (as they are) they do not fear changing firm when needed. This is a big difference to other client groups where a trust relationship already is established which often hinders switching between firms. For acquiring customers in this market, A&As must get better at differentiating themselves and communicating their values.

The commodity of accounting is also related to the changing work role of accountants. An accountant is no longer seen as an authority but more of a coach operating on the same level of formality as the client. Accountants might as in the quote below nostalgically say; 'there was a time when the annual report was the happening of the year for a company'. Today it is different. For many entrepreneurs the annual report won't

present any news. New technologies allow them to stay continuously updated on the financial picture. Furthermore, what really makes a difference for a startup entrepreneur is not what happened in the past, but what is to come.



Clients don't appreciate the financial statements anymore... Before the annual report was the happening of the year

Knowledge & Interest

There are obvious differences between accountants and entrepreneurs in terms of knowledge and interest. What is the primary business, great interest and expertise of accountants is a secondary focus and of less interest and knowledge to an startup entrepreneur.



Yeah, when the economy is going well, and their business, they [entrepreneurs] are less interested in the figures... As long as the bank account is in black numbers they see no reason to worry...

Entrepreneurs experience accounting to be a very boring, time consuming, often stressful activity that is postponed until the last moment. For accountant on the other hand, accountancy is a continuous day-to-day process. Startup entrepreneurs deal with comparably simple figures. Due to lack of knowledge and experience in accounting, they still often struggle with many questions that accountants can provide the answers to, if given the opportunity.

The future of accountancy - trends

The expected changes in the market for A&As - pushed by the technology and its users - are known by more or less everyone in the business. Some, typically group 2 accountants, fear the changes and hesitate while others look forward and proactively adapt to them.



You know, the environment changes and if you don't go with it you make yourself useless. The rest will have to look for something else. I think it will get solved naturally, more or less

There will be no more shoeboxes - no more piles of receipts handed to the accountant at the end of each month. Manual administration activities will be replaced by automated and digital processes. At the same time flexibility and mobility become increasingly important. New generations expect everything to be online, on-the-go, always updated and backed-up.

As online collaboration becomes more important - use of social media and efficient methods for communication are required. More informal and frequent ways of collaborating are to be expected, which can be an opportunity for A&As to stay updated and provide better and more extensive advice to their clients.

Pricing is an important factor for the future. Due to an increasingly competitive market more transparent and fixed pricing models are needed - in line with new user needs. This leaves no room for inefficient work by the accountants.

As early startup entrepreneurs do more of the bookkeeping themselves the gap between this group and accountants might initially grow bigger. The opportunity lies in accountants coaching the entrepreneurs and reviewing their work as well as advising and over time taking over

SHOEBOXES BECOME DROPBOXES

Figure D13. Future trends.

more of the financial responsibility as the start-up grows and its activities and finances get more complex. The initially growing gap between the groups is also due to a transition period for the A&As. It takes time to get accustomed to new ways of working. Moving from a production to a consulting organization does not happen over night - and gradually impacts the entire workforce. After a period of adoption, the gap might decrease again due to successful advising activities bringing the accountants and entrepreneurs closer together.

At the same time the market of accountancy is expected to become increasingly competitive. Banks and management consultants provide similar advising services as accountants, further challenging their positions. Only the future can show if accountants in fact will be able to adapt fast enough to win the race for the customers.

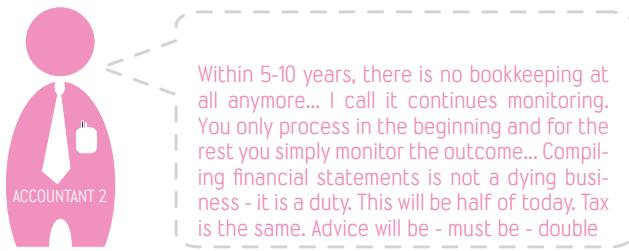
A changing role

As a response to the changes in the market, A&As must go from production to advise organizations. The workforce has to change accordingly into one that is comfortable with the new ways of working. This includes: higher level communicators and more advisors rather than processors. Accountancy firms will have to become more commercialized and focus on not only accounting but also communication, relations, marketing and sales.

Figure D14 indicates how accountancy activities will move from bookkeeping and processing of financial statements to a world of more advice focused activities, standardized processes, continuous monitoring and automated processing of data.

Less time is spent on bookkeeping per client which opens up new opportunities to focus on customer relations and giving advice. The trend goes towards a situation where bookkeeping is totally replaced by continuous monitoring activities. Due to optimized processes and more efficient working methods the accountants hope to serve more clients and in this way keep the total level of bookkeeping/continuous monitoring on

a constant level. The resources spent on assembling financial statements will decrease – as the bookkeeping takes less time, so does the reporting. The aim is to in the end reach a ‘press of a button’ situation for putting together financial reports.



Summary

The changing market is obviously a big challenge for the A&A firms and many smaller firms are facing difficult times. The financial structure presents a problematic situation of decreasing incomes and big adjustments are required in order to reverse the downward trend.

Not only technology innovation, but also new demanding users enforce changes to be made in the work-style and role of accountants. Accountants and startup entrepreneurs are in many ways each other's opposites and this will likely challenge collaborations between the two also in

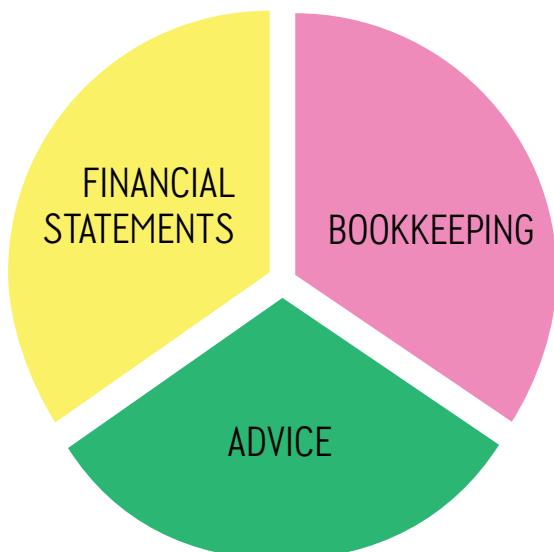
coming years. A new kind of accountant will be needed, and the future will show how well current accountancy professionals can live up to the new expectations. Traditional firms that refuse to move along with modern times will by time go out of business and accountants surviving in the new market will find their future jobs to be very different from today.

Many accountants believe future revenues to rely on providing full-service packages to an increasing number of customers. Modern technology and more efficient and standardized working methods enables quicker processes.

But one important question remains; considering the already competitive market, where do all these new clients come from? By doing more in less time and to a better price the A&As hope to attract the clients that earlier considered themselves too small for having an accountant. They also see the bigger clients as a growth market. It will become too expensive for companies to have their own bookkeepers compared to the specialized and affordable prices A&As can offer.

But will it be enough? It seems safe to assume that the already challenging market for A&As only will become increasingly competitive in the future.

TODAY



IN 5-10 YEARS

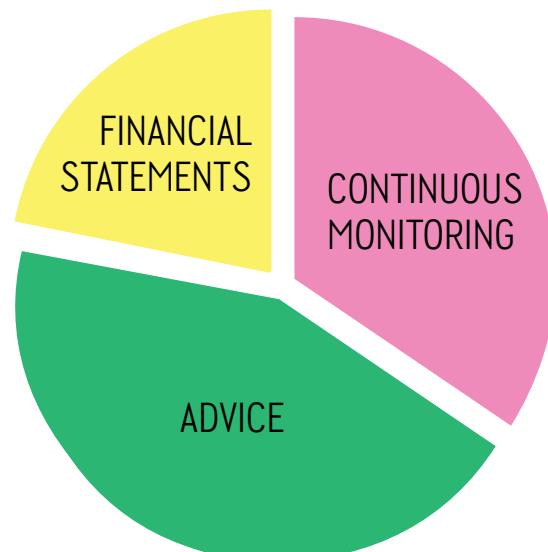


Figure D14. Changing accountancy activities..

The utopian Startup cycle - needs and financial touch points.

In this chapter, needs from startup entrepreneurs and connections to financial touch points are presented linearly along an utopian startup cycle. "Utopian", because it describes the development of a company starting from an idea and two years later ending up as a successful, thriving business. This way of presenting was decided on due to a few main insights gathered during the research:

1. A startup goes through many and fast changes during the early stages of business development. Many of the phases startups go through are more or less the same even though the order of the phases as well as the time it takes to go through them all may differ.
2. Entrepreneurial needs change drastically with time and are related to the startup phases.
3. The financial touch points are also directly related to the startup phases and to the entrepreneurial needs.
4. By plotting the three categories (the startup cycle, the needs and the touch points to accountancy) linearly, the user has the opportunity to read the picture both horizontally (presenting the development per category) and vertically (presenting the connections between the categories).

The Startup cycle

For this project a startup cycle of two years has been defined, with a clear distinction between the early-stage startups and the later-stage ones. The decision to speak in terms of two years was made in order to provide a clear reference frame for the story. The cycle presents an utopian view on startup development. In reality many startup entrepreneurs lack experience of business development and simply learn by doing. The cycle is not linear but can rather be seen as a constant loop of activities. Startups go through the phases in a much less structured way, often being forced to start all over, going back and forth between the phases - iterating and redoing. It may take years to validate an idea and many companies never reach sustaining growth. Many fail and

others have to struggle through years and years of drawbacks before reaching actual results. For the simplicity of this story we assume a perfect case of startup development reaching exponential growth within a two year period.

The early-stage startup

The early stages of a startup are often expressed as a roller-coaster of emotions and learnings while being busy exploring the market, customers, product, company and team. It is a continuous and more or less structured cycle of ideas, discovery, validation and creation. For the majority the approach is though more in line with 'design as we go'. Many decisions need to be taken - who to work with, where, when, how etc. - and conditions change with the blink of an eye.

For the early-stage startup the phases have been defined as follows. Let's imagine that you start in January 2013 with a great idea and big ambitions. A business plan is developed and you focus on idea validation - checking whether the idea has potential and exploring the market and potential competitors. At this time your small team consists of a core group of passionate founders working from home, while using up a small buffer of savings or having part-time extra jobs. A few busy months of product development and customer acquisition follows. In some cases copyright or patent protection becomes increasingly important and after one quarter you have your first customer. You present a first delivery/release and the customer base slowly increases. You decide it is time to register as a private company and by the end of June 2013 the startup finally starts making money or raises a first investment. In October the core team changes - one cofounder decides to leave the company. Shortly after this you decide to get a first freelancer - not yet being ready to take on the challenge of employment, but still being in need of a few more hands. By the year-end you are ready to move into your first office. With the small income acquired so far you invest in hardware, furniture, network etc. and in marketing and wages.

Early emotions

During this time many startup entrepreneurs are

filled with neutral or negative feelings towards accounting - a necessary evil! They express feelings of being out of control, fear of failing, stress and lack of structure and knowledge. They see accounting as a boring, frustrating and time-consuming activity that 'you need to do simply because you are forced to'. Managing the finances becomes a stressful and an overwhelming activity not because it is complex but simply due to the startup entrepreneur not knowing where to go or what to do. In the very beginning accounting is associated to money and figures only - added values and services connected to accounting are identified during later stages of the cycle. Due to the many negative emotions - accounting is often postponed to the last minute which naturally further adds up to the experience of accountancy as stressful and frustrating.



Inexperience is one of the main things... Its related to not knowing what you should do, what you are obliged to do, the rights you have...



Its like a mountain in the clouds and you don't know where it ends... And I postponed it as much as I could... Because I did not want to start...

The main motivation for entrepreneurs to do their accounting at this stage is fear of the authorities. Startup entrepreneurs are very scared of making mistakes that will affect the future, of not knowing their obligations etc. They realize that the finances for a small company possibly could be quite simple. The same reason - being small and having very little money - make the finances and having control over the financial picture even more important. Early entrepreneurs see rewards in doing the accounting activities since this gives them 'a clear mind and focus'. They get better at it and learn with time which makes it more worthwhile.



Accounting for me is directly linked to taxes. Every time the income tax comes, there is a lot of work... And with that comes less overview, less motivation and more stress

At this point many startups have barely any money but do have a great need for knowledge and support. The bookkeeping has to be done by themselves as a way to save costs.



it's always in your mind, the little policeman... That one day one guy from the tax office comes by and takes all your books and finds the errors and then you are, phhh gone!

Early needs

The bigger needs at this point can be summarized as follows: Confidence, Advice, Knowledge and Structure. Early startup entrepreneurs need a boost in confidence since they doubt everything they do and mainly connect the accounting to stress and fear. Confidence derives from knowledge; knowing what you are expected to do and when, and how to optimize your business. Knowledge and control often make things more fun, which is a better motivation than fear. Early startup entrepreneurs need trusted advice in the form of a second opinion. One hour of support might be enough as long as it is specific to the startup's needs. Help in organizing their processes is likely to do wonders with the procrastination problems. The early startup entrepreneurs need help to create structure - not due to loads of financial data, but because of the vast amount of new information and little previous experience.



You need a simple system and a 'mannetje'! Someone you can trust, that knows it all so that I never have to have the feeling this will go wrong ...



It should be a thing especially for startups that wants to grow... In a simple form. Because if you have everything in your face it's too much...

In order not to overwhelm the user, simple step-by-step solutions could create structure and motivate continuous usage. The right tool should facilitate the starting of a business and a good first experience of accounting activities to entrepreneurs. An important requirement is that services are provided for free or for a very low price. This user group cannot afford to spend any money unless it is absolutely necessary or adds great value to the business.



I understand everything a little too late... I would have liked to know this a month or half a year ago so I could have made better decisions

The later-stage startups

After a successful first year of developing your idea into a small but growing private company with a core team and a few free-lancers, you enter year two with a lot of excitement and big visions for the future. The customer base continues to grow and to make work more efficient you start to outsource a few tasks. As the company increases legal factors, such as privacy of data, becomes more important. After a few months you decide to get a first real employee and not long after that you reach an agreement for a second investment. The team continues to expand with the customers and two years after start you attain a state of sustained growth.

Later emotions

During this time startup entrepreneurs often develop more articulated feelings and needs regarding accountancy. They are past the initial period, being overwhelmed by stress and fear, and moved into a stage of more confidence and knowledge.

The feelings towards accountancy are more diverse. Accountancy is still boring, not due to lack of knowledge and interest but rather due to an increasing amount of data. As the complexity increases while the processing and methods used lack efficiency - a lot of execution time is needed for reaching only small results. Accounting takes up more and more energy and time (i.e. money) from the entrepreneurs.



For me this is the biggest energy drain there is, as a business owner... But you need the data, you need the insights, you need the knowledge

Positive feelings also develop. Entrepreneurs need time to realize the importance of accounting for growing a company and start to see it as an investment for the future. The early extrinsic motivations (fear for authorities) have developed into intrinsic motivations of knowing and being in control of your figures and the startup process. This amplifies the need for later-stage entrepreneurs to do accounting by themselves, not simply in order to save in on costs but to stay really close to the finances.



I want the knowledge, the control... money is everything in business and it's part of your life... Knowing when it runs out... you really need to keep it close



It's an hygienic factor... if you relax you are in deep shit literally. It is the base for a lot of decision making... I see it as an investment



One thing I like about entrepreneurship is the small feedback loop... it's quite in your face, also with finances - I need to feel it. To be with your shoes in the mud and immediately know when something goes wrong

Getting an accountant

At a certain point most startup entrepreneurs decide it is time to get an accountant. The time and reasons for this may differ. But for all of them deciding what to outsource and what not is important and often difficult. Some startup entrepreneurs express how accounting quickly excels their abilities. These entrepreneurs feel their time is better invested focusing on their strengths and the main business, early on leaving the accounting to the professionals. Also in these cases the startup entrepreneurs want to stay involved and be frequently updated on the financial picture.



The first year we did it by ourselves and it got over our heads. We didn't use all the rules and we paid probably too much, and it was more like a job we both didn't want to do... this was just for the better



I hired an accountant to do it - then I know that the work is done by the most efficient people

A second scenario typically involves more mature startup entrepreneurs that see close control of their finances as an important step on the path to success. These people are reluctant to leave the main part of the work to an accountant. Being less connected to the finances is seen as a liability. They do the main part of the work themselves as long as this is possible and connect to an accountant later on for example at time of employment, for expert advice and for getting help with very specific tasks. These may be: subsidy verification, checking financial reports, tax advice and making deals with the tax office, company structure advice, audits and advice on how to work around regulations.

Most early-stage entrepreneurs also work along with scenario 2 because they cannot afford anything else. They do the time consuming, manual

work themselves and only approach an accountant for specific advice and for overviewing their process. Visionary accountants identify the needs of the entrepreneurs and proactively work closely together with them in the beginning to avoid unnecessary mistakes.



I don't like it but I want to do it myself. I want the knowledge, being in control... Yeah, because it is really important. Money is everything in a business. If you run out it's over, and it's a part of your life, your business



The monkey stuff, typing etc., that's what we do... Because that's what takes most time... And he [the accountant] just needs to check it and then he sends it back and says what you have to do

The perfect accountant for a startup

Even though the reasons and point in time for getting an accountant may differ, the startup entrepreneurs in this study expressed similar ideas regarding the characteristics of a 'perfect accountant'. Finding this accountant was by most of them expressed as very difficult and a 'lucky shot'. The personal 'click' is the first and most important requirement for the startup entrepreneurs. They want to find a person they can trust, relate to and rely on - a 'honest and direct' relationship is the foundation for a good collaboration according to both the entrepreneurs and the accountants.



I want to know that the person I am talking to is the one checking the facts and the numbers & knows when something goes wrong!

What the entrepreneurs look for is a person with many similar clients. This means having an accountant that understands the field and in this

case every step of the startup process. Such a person can provide better support since he/she has worked with companies that have similar problems. In this way the accountant can also help with benchmarking. The entrepreneurs want their accountant to be proactive, to foresee problems and have answers to the questions not even asked yet.



You don't want to reinvent the wheel... You want someone that has similar customers because they have similar problems. So they [the accountants] know the problem before you do!

Another important requirement for the A&A firm is that they continuously innovate and invest in modern technology and tools to improve their processes and streamline the work. The third important requirement is reliability. The entrepreneur wants to be able to fully trust the advice given and the competence of the accountant.

Good references - asking friends - is one of the most common ways for startup entrepreneurs to find an accountant.



You know, I ask friends if they have a good accountant. But until now I only heard that they are very expensive and don't give enough

A final concern for the startup entrepreneur choosing an accountant is pricing. The question of money is surprisingly far down on the list of important criteria. Costs naturally play a bigger role for the early-stage entrepreneurs due to their low incomes. The later startup entrepreneurs see accountancy as an investment for the future and therefore put less attention to pricing. Many startup entrepreneurs express how the feeling of paying a 'fair price' is important. What is considered a good price depends on the quality of the relationship and the support. Generally,

fixed and transparent pricing models are appreciated. Startup entrepreneurs want to know what they pay for and how this will support them in growing their business.



The solution should be affordable no matter if you use one or all modules



Money is not that important for me - accountancy is an investment. The advice I get creates value. I want a good quality and efficient service to a fixed prices and a personal relationship

Later needs

Later startup entrepreneurs obviously have different needs than their early-stage counterparts. At this stage of the startup efficiency, projections, customization and scalability is prominent.

The entrepreneurs in the study expressed how accounting should be easy and fast. The whole setup should be cloud-based, digital and automated as well as easy to search through.



...Like when we get the bills for the rent. It's on paper and I have to first put it in the online banking, then I want a digital copy as well and I have to put it in the binder etc. It's only like 20 minutes - but it's 20 minutes too much

The past is uninteresting compared to the future for startup entrepreneurs. The opportunity to make projections based on simple assumptions was expressed as a 'paradigm change'. It would support the decision making process and make accountancy a value-adding activity. This is especially important for startup entrepreneurs since they deal with more assumptions than facts in an environment of fast changes.



A model could work with simple factors like, rent costs, wages, resource costs etc to fill in the assumptions. Having a tool for this would save a lot of time... Without projections the future is like a deep pool of not knowing



I don't trust anyone so I always, also for Exact Online make backups... Even for cloud solutions. This was a reason for me to switch from Twinfield... If you lose already one month of financial data that's a lot...

Both solutions and advice need to be personalized since every startup has individual needs. Tools should be modular and advice specific rather than general. Scalability of tools is also very important due to startups acting in a constantly changing environment with potentially very fast advancements. As seen in this chapter, the needs differ greatly between the early and later-stage startups - both tools and services need to grow with their users.



You need supportive tools and services that fits the situation that you are in. And they need to grow with you

As a company grows the accounting gets more complicated - more customers and employees means more data. In line with this, the need for structure, smart systems and automation grows. The startup entrepreneurs want to spend as little time as possible on accounting - the hunt for efficient methods never ends. They look for solutions that simplify their work, enable them to get a clear overview and provide as much functionality as possible in one place.



For me it would be handy to be able to do my time tracking and you connect a web shop... To have everything in one place. Then it's worth it [a higher price]

Startup entrepreneurs appreciate when tools and services help them by 'watching their backs'. Any solution should include warnings, tips and personalized expert advice to support the business.

Accessibility is highly prioritized by the later-stage entrepreneurs. Mobile applications and tablet functionality, providing real-time information on the go, might be more important than a website these days. Later startup entrepreneurs are eager to stay in control and up-to-date with their numbers. Reliability similarly gets more attention from the later-stage startups. The more serious finances, the bigger the need to know that the information is safe and properly backed up. Downloading and exporting data, making frequent backups, should be done with a click or two. Exchangeability is also important - entrepreneurs want to be able to share their information, import the data into a different system or easily collaborate with accountants within the tool.

Many entrepreneurs are stubborn and in constant search for control - they like to know what tools they use, exactly how they are built and work. They are solution-oriented and visionary and like to improve their work where possible. For this reason they also see great opportunities in being involved in the making of their tools by the use of open source solutions and add-on development.



Maybe Exact should say: you can make an add-on, like in Firefox, if you share it with everyone else. I would make it, and not because I want to make money but because I want to use it. That's the best motivation

Accountancy touch points

The need for accounting tools is nearly absent in the early-stage startup. There is no money to spend and no need for expensive systems and ad-

vanced services. By the end of the year the entrepreneur has a small pile of receipts: transport costs, phone bills etc. to register and a small pile of invoices for the very few first customers. The bookkeeping is simple. Using a spreadsheet for keeping track of the figures and a word processor for making a first invoice template is more than sufficient. No CRM is used - the customer relations can be counted on the entrepreneur's two hands and everything needed is in his/her mobile phone. No employees mean no need for payrolling or management.

The early entrepreneur need accessible information and knowledge. They need someone to give them confidence, trust and low-price advice in how to set up a simple bookkeeping template, how to do bookings and VAT returns, early employment, options for company structure and handy tips and tricks from experts.

Things change fast and it's hard to make good assumptions for the future. A simple tool for forecasting based on just a few variables could help in the decision making. By the end of the year it is time to put together the first annual report. For this some help is necessary: a few hours of advice and a beginner's template to start with. Support in business development and networking is highly appreciated during all startup phases - starting already in the first informal months of growing a business.

Year 2 brings more customers, relations and a bigger team which means more administration work and more complex figures. This generates an increasing need for 'handy tools' to minimize the time and energy spent on documentation. The customer base will at one point become too big to overview manually - creating a new need for time management and CRM systems.

The situation directly becomes more complex at the moment of employment. In many cases the connection to an accountant is by now needed for supervision and advice. Many entrepreneurs still want to do the main part of the work themselves but like to have an expert checking their administration and reports as well as taking care of the

payroll. This provides an opportunity for the accountants to prove their value by becoming the 'go-to-guy' for trustful and frequent advice.

After one and a half year the administration work may take a lot of time and energy to put together. A lot of time could be saved by automating many tasks and subscribing to a proper bookkeeping software such as Exact Online. By now the entrepreneur has understood the importance of using accounting as a base for decision making. Working in a world of insecurities and fast changes creates a demand for more complex solutions and not the least future projection models. By the end of year 2 the startup company may have reached a stable situation being ready for and able to pay for outsourcing the company's total need of accountancy. Hopefully a close relationship with the accountant is established and the entrepreneur will make sure to stay in close contact with him/her as well as with the figures by continuously monitoring the financial picture and the business developments.

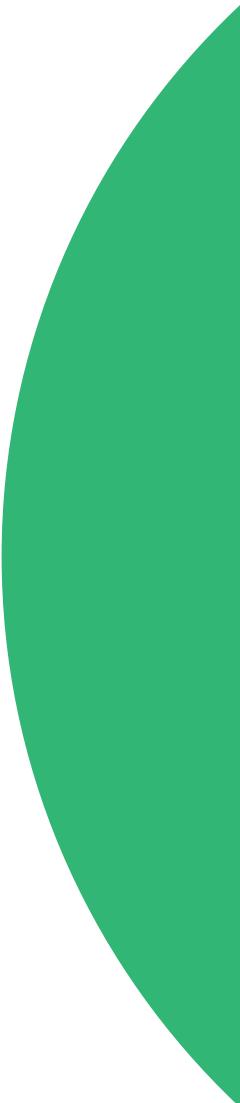
Summary

Entrepreneurial needs change fast. This can be seen as a challenge as well as an opportunity for accountants and technology providers. Due to the high demands not many yet took on the challenge of fulfilling them all - and a lot is left to be improved regarding accountancy for startup entrepreneurs. The chapters above aims to communicate the problematic situation accountants and entrepreneurs express as well as the many opportunities simply waiting to be realized.

Conclusions

The user research provided rich outcomes to be used by Exact and as a source of inspiration for the design work. The research questions were answered and together with the initial interviews, the creative sessions generated an appropriate level of information about the field of accountancy and accounting for startups, user needs and gaps and touch-points between the target groups. Many insights from the interviews were confirmed in the sessions indicating that further research would be elusive. A brief conclusion of the main findings are presented on the next page.

- The world of accountancy is changing fast due to technology innovation and a new generation of demanding customers.
- These changes have big consequences for A&As cost/revenue structures and for the activities and work roles of accountants.
- Startups present a new market opportunity for accountants though also challenging their ways of working.
- Accountants and startup entrepreneurs are very different in terms of personality, ways of working and communicating, expectations and knowledge/interest level, which might pose problems when collaborating.
- Future trends include new ways of working, a different work role and different characteristic of accountants.
- The needs for financial support change greatly throughout the development of a startup and is directly related to the startup phase.
- Only later-stage startup entrepreneur express interest for advanced financial tools on the level of Exact Online.
- In the early phases of a startup mostly negative emotions and fear felt in connection to accounting. Early-stage entrepreneurs need support in the form of advice, knowledge and structure to build up their confidence and trust.
- More experienced startup entrepreneurs express negative but also positive emotions towards accounting - they understand the need to stay in control of the finances. Their main needs are in the fields of efficiency, forecasting, customization and scalability.
- The reasons and time for getting an accountant differs between the entrepreneurs but their descriptions of a perfect accountant are similar: a person they 'click' with and can relate to, with many similar customers, good references, focused on innovation and providing trustworthy expert advice to a fair and fixed price.



CONCEPTUALIZATION

+

The services provided by Exact, its size and extensive network introduce a range of opportunities for stepping into a new market and fulfilling the early needs expressed by startup entrepreneurs. For successfully entering the startup market a new strategy is needed that includes a new functionality and branding - as identified in the user research. A new market introduction would also provide opportunities for Exact to support accountants by helping them adapt to the changes in their branch and by providing early connections to prospect customers.

This chapter will outline the concept development process by describing the strategy needed for the market introduction. It introduce the scope of the concept in the form of requirement lists. A solution space is defined and a structure is created in the form of a conceptual model, architecture diagrams and functionality lists. Final wireframe designs for part of the concept are presented. In the final section, further considerations are described; a user scenario, visual guidelines and some thoughts on the accountant tool and gamification possibilities especially interesting for the implementation of the concept.

The strategy

A good user experience starts with a clearly defined strategy which leads to a good understanding for and communication of underlying goals (Garrett, 2010). Two questions must be explicitly answered: (1) what should the product accomplish for the target users - startup entrepreneurs and accountants and (2) what should it do for Exact, the company behind the product?

User needs

The first consideration regarding the strategy, is the user needs. What value does the product have for its users? What should it accomplish? First, lets though define the target user, through an exploration of what user segments to address.

Target users

When looking at the opportunities for Exact to target startup entrepreneurs, two main scenarios can be defined, as illustrated in Figure E1. One

scenario focuses on bookkeeping - something that is interesting mainly for later-stage entrepreneurs. These users are confident and knowledgeable compared to early-stage entrepreneurs. The later-stage entrepreneur might choose Exact Online when in need of supportive accounting tools. But he/she might just as well decide to go for any of the many accounting solutions that are specifically targeted at startups. A strategy focused on later stage startups is complicated because of the crowded and competitive market where it is likely more difficult to acquire customers.

A second scenario includes a different and broader focus of product referred to as an ecosystem. Here we address the very early needs expressed by the early-stage entrepreneurs. They have little confidence and experience, associate accounting with stress and confusion and are therefore in great need of simple tools and support. Not many solutions aim to fulfill their needs which provides for a less competitive situation. If done right, the migration to Exact online becomes a natural follow-up along growing the startup. Exact should not simply look at accountancy in terms of bookkeeping but rather look at the bigger picture where they can compete by adding value to its very early users.

User segmentation

Four groups of users have been taken into account during this project: group 1 and 2 accountants and the early- and later-stage startup entrepreneurs. Specifically group 1 accountants and early-stage entrepreneurs inform the design process - decisions are made with their needs in mind.

The decision to target group 1 accountants is due to this best fitting with the scope of the solution. No solution can entirely change the personality of accountants making them visionary and prone to chance. Only accountants already willing to make adjustments for the future can be assumed to be potential users of the system.

Personas for the target groups were created (see figure E2-E3), also for those groups that are not

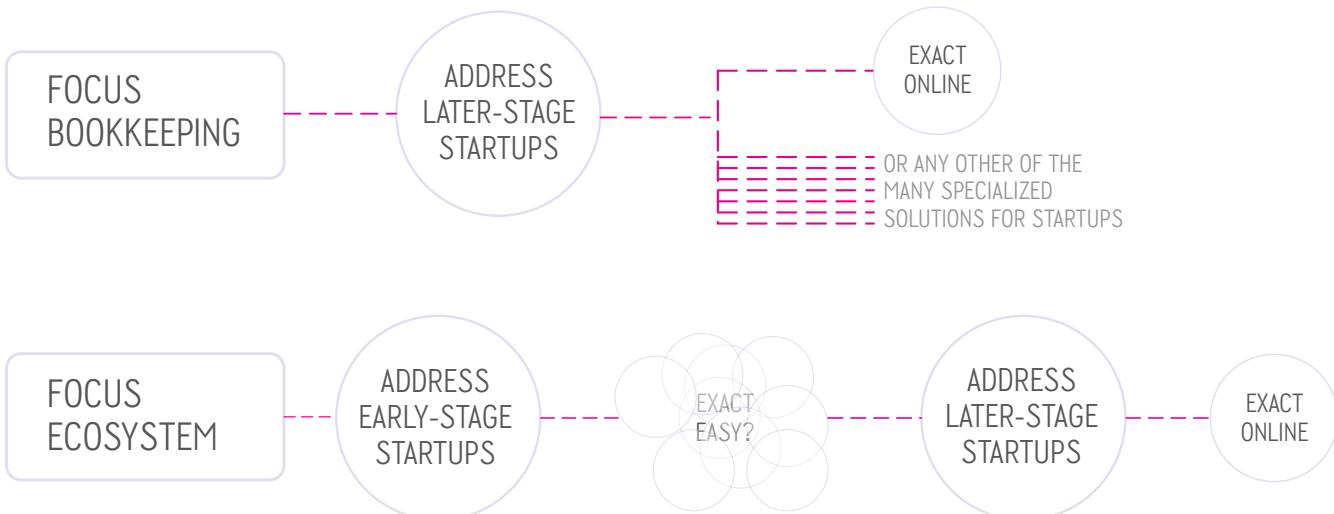


Figure E1. Target users - two scenarios: focus on bookkeeping (top) or focus on the ecosystem (bottom).

directly targeted, i.e. later stage startup entrepreneurs and group 2 accountants (see Appendix 17). This allows for a clear communication of the differences and a comparison between the groups.

What should the product accomplish for its users?

For the startup entrepreneur the solution must provide continuous fulfillment of his/her early needs for financial support. While Exact Online provides an optimal solution for the more mature startup entrepreneurs in need of efficient and complex solutions, the new concept aims to support the early-stage entrepreneur in the very beginning of the startup cycle. This will 'fill up the gap of use' before entering the world of Exact Online.

The solution aims to support the accountant by motivating him/her to react and adapt to factors in the changing market. The future includes online, more higher level, advising activities and less manual administration work. Many firms will depend on successfully entering new markets, such as the startup market. The concept can support this development by providing opportunities to build relationships with early-stage startup entrepreneurs. The solution can also function as a forum for accountants to stay updated and learn about the needs and behaviors of their users to enable better future collaborations. Exact can take on the position of matching accountants and entrepreneurs by having the

advantage of knowing the needs and motivations of both groups.

In many ways the two user groups, accountants and startup entrepreneurs are of opposite nature. It is therefore important to in terms of contradicting needs define a leading user group. Since both Exact and the A&As depend on the entrepreneurs for their success - the startup needs are seen as determining factors for guiding the design process. A solution made for accountants will generally not attract a startup entrepreneur. The visual style, the information presented and the interactions included in the solution will mainly be chosen to support the entrepreneurs. With this said, the solutions should naturally as far as possible provide a good user experience also seen from the perspective of accountants.

Product objective

The product objective provides an answer to the question: what should it do for Exact, the company behind the product? A couple of ideas on future business plans and branding strategies are also discussed as part of the product objective.

What should the product accomplish for Exact?

The aim is to create opportunities for Exact to extend its business value and grow by increasing the Exact Online customer base. When addressing the startup entrepreneurs and fulfilling their early and growing needs, new opportunities for a direct migration to Exact Online are created.



Figure E2. Persona - early-stage startup entrepreneur.

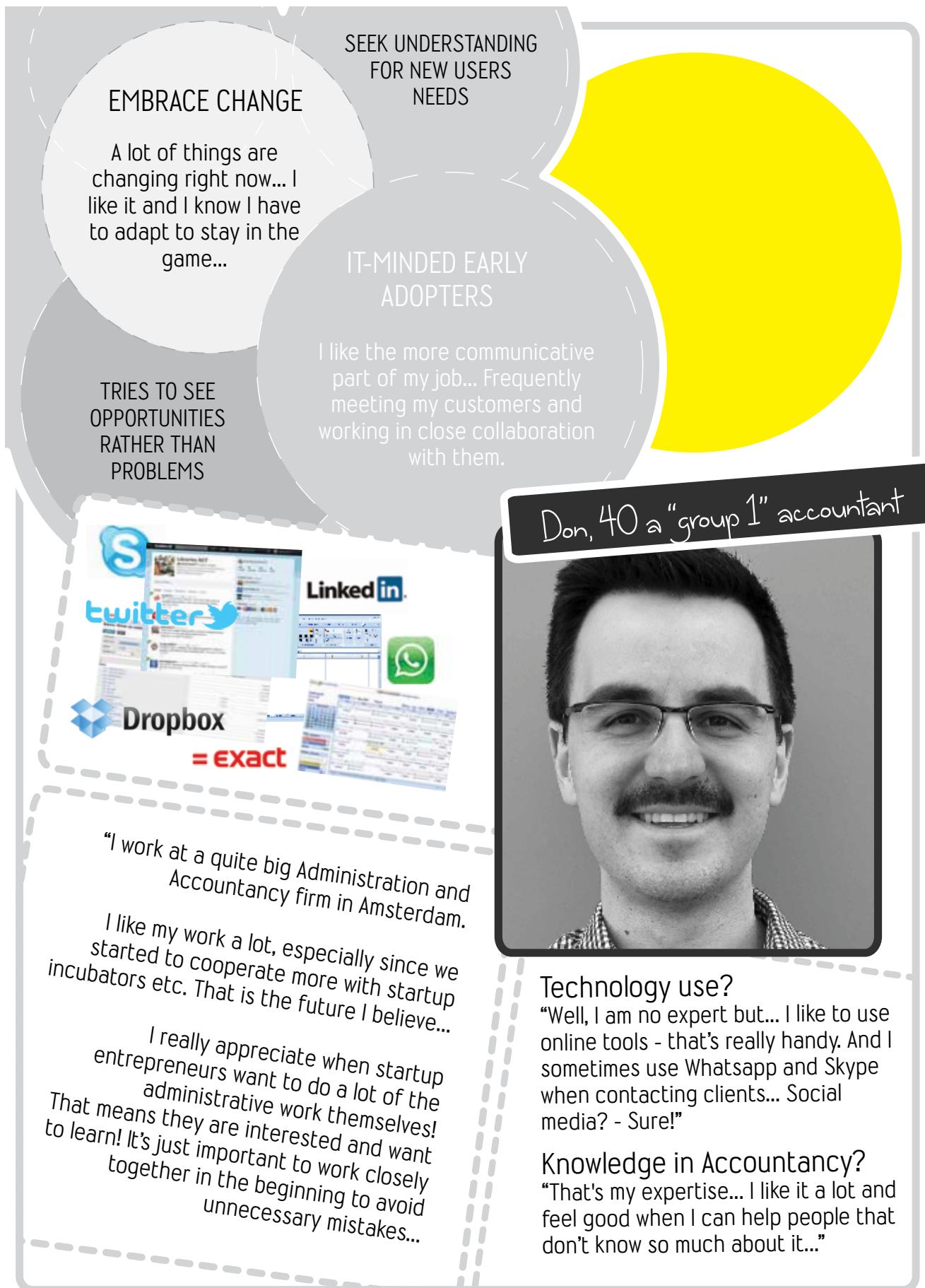


Figure E3. Persona - group 1 accountant.

As understood by the author, the strategy for Exact Online today is to use the accountant as a stepping-stone to the entrepreneur. By addressing the startup entrepreneurs directly, new opportunities for growth can be identified in an earlier stage than currently.

In order to stay a relevant and recognized brand Exact should continue to provide the right products and services and stay updated on and adapt to the changes in the market. The concept presents an opportunity for Exact to ensure continued innovation and alignment with future user needs.

The concept also aims to further improve the relationship with the other main customer group, accountants, by providing tools to support their work, facilitating market extension possibilities and motivating adaptation to new user demands.

A new business model

An extension of market partly asks for a change of focus. Exact would move from a premium business software provider to also being a service and networking hub fulfilling the very early (consumer) needs of startups. This is a big step that incorporates a different business model compared to today. A specifically interesting factor is pricing. The new generation of entrepreneurs is used to paying very little for getting a lot and will expect the same level of service in the beginning of their startup life-cycle as they would in their private lives. A great opportunity lies in approaching new users with a tiered price model that grows along with the user. Providing temporary initial low-price services to customers with no income to speak of - is a necessity for attracting them. This investment is likely to pay off long-term assuming that the entrepreneur is satisfied with the services and tools provided, therefore becoming a devoted customer. As the tool grows with the user needs, the more successful, the more they can and are willing to pay.

A new kind of user demands new ways of thinking. With a change of services and tools, opportunities for new, flexible business models are likely to appear.

Brand identity

Brand identity and company image extend beyond marketing and visuals. The impression of Exact is most of all created in the interaction with its products and services.

The branding of a tool for the early-stage startup segment needs to communicate simpleness and low profile. While Exact Online generally is marketed as a full-blown premium tool, a different focus is necessary for the startup entrepreneur. Small startups perceive Exact as overkill as it provides solutions way beyond their needs. Big words and complex solutions scare them away. These users are attracted by branding that speaks on their terms - presenting a solution adapted to their needs and communicating a deep understanding for their specific use case.

The solution must be much more than a user friendly bookkeeping tool for dummies, and should therefore be communicated as such. Every part of the product must be implemented with a specific user experience in mind. The message should be: "We are Exact: we will help you from day 1 and grow with you as your business does. We care, we understand - we know you and your needs. We have the knowledge and the connections for you - we have the network. We have the tools you need - efficient software to do the things you need to do, whatever startup phase you're in!"

The impression of a product starts with the name. A good name for this purpose communicates the

**WE ARE EXACT
WE CAN
HELP YOU**

Figure E4. Provide a clear message to the users.

simplicity of this accounting solution. Words like easy, simple, beginner, startup can be used to give the right feel to it. This to clearly communicate the main target user and the type of functionality aimed for. In terms of functionality the added values should furthermore be communicated. For expressing these extended values words like hub, incubator, networking, sharing, support, startup, platform, ecosystem etc. could be used.

Introducing the concept

The functionality of the concept must grow with the fast changing needs of its users. The initial focus is not on accounting in general but on the entire ecosystem surrounding the entrepreneur - addressing the actual needs they have in the very beginning of starting a business. This includes providing services such as a knowledge based system, reminders, alerts and platforms for fast, online support, easy and flexible ways to connect

to accountants as well as simplified data transfer between the startup and different financial parties such as banks/investors, the Tax office, the Chamber of Commerce etc. Last and least it includes simple bookkeeping tools with a few additional models for simplifying early accounting activities - online solutions that save all data from day 1 and enables easy integration with Exact Online when that day comes.

By selling around the product and addressing the entire financial ecosystem Exact would attract the target user by providing a full-service solution fulfilling his/her total needs. It should be a platform for sharing knowledge and connecting people, a solution that includes everything financially related in one single place - initially functioning as an extension of a person. For the startup entrepreneurs of the future - Exact should be known not only as a business software provider but also as the networking hub!

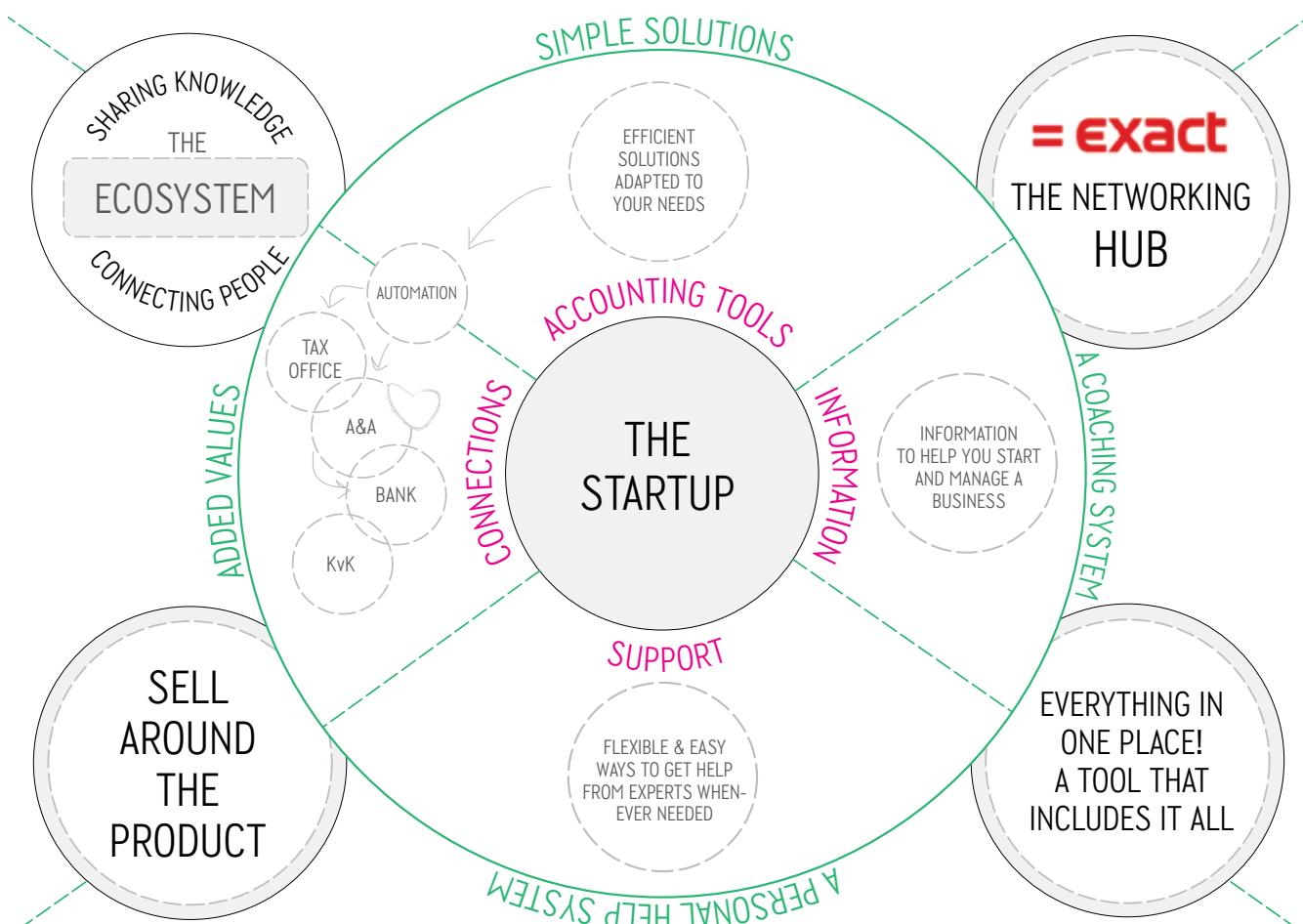


Figure E5. The opportunity cycle.

Scope & structure

A strategy provides a clear sense of what should be accomplished - now it's time to figure out how to satisfy the objectives defined above. The scope is a translation of the user needs and the product objectives into requirements for the solution. The user research is the main source of information for creating the requirements. They cover explicitly stated as well as latent needs that were identified and can be found in Appendix 18. Describing the concept structure means stepping from the rather abstract strategy and scope level to concrete factors that directly will determine the final user experience.

A conceptual model

The conceptual model for the envisioned final product is a financial coach (see figure E7) - a system that includes everything the startup entrepreneur might need in terms of early financial support. The model describes what feeling to aim for in the final solution. A coaching system includes much more than simply financial tools - it also provides support, information and connections to a network. It is a personalized solution aiming to help the user by fulfilling his/her individual needs. 'Someone' helping the entrepreneur to find the way, providing 'tailwind' and a look ahead. The product should give its users a clear mind, focus and a feeling of confidence and control.

The solution space

The following four terms; support, information,

connections and tools are the pillars of the product. A second dimension is the early financial events connected to starting a business; a financial startup timeline. In an abstract sense these pillars and the early financial events define the y- and x-axis in the diagram describing the solution space (see figure E6). A third dimension, the z-axis, also giving boundaries to this space, are the requirements defined (see Appendix 18).

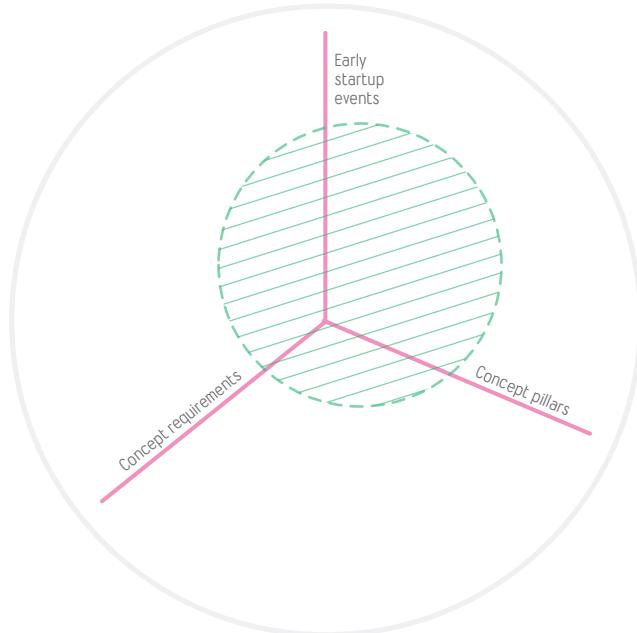


Figure E6. The solution space.

It is important to see the main structure - the pillars and the early startup timeline - as an integrated whole rather than separate entities. Each financial event will be directly linked to support, tools, information and connections to financial parties needed. The precise implementation of

CONCEPTUAL MODELS

A conceptual model helps in developing a clear structure for a concept. If done well, the model can help users create a correct impression of the overall behavior of the solution. Knowing the conceptual model also helps during the development process in motivating consistent design decisions. The model can influence both the design and the language being used and it can refer to part of or an entire system. Conceptual models are generally based on metaphors and real-world analogies. In some cases the model is explicitly communicated to the users but this is not necessary. Ideally the behavior of the product matches the expectations of the users so that they don't need to be told but rather intuitively understand the idea of what has been created (Garrett, 2010)

YOUR FINANCIAL COACH



Figure E7. A conceptual model - your financial coach.

the pillars (the kind of tools, information etc.) might though differ for the different pages in the product.

Architecture diagram

But what does the concept do? What types of content are included in the concept and what can the user do with that content? As the borders of the solution space are now defined let's start looking at more defined problems and possible solutions.

The architecture was driven by considerations from the strategy (top-down) as well as from the scope, i.e. the requirement lists, (bottom-up) defined earlier. Several iterations of brainstorms led to a collection of pages. The sitemap does not describe every link possible in the system. The aim is to document the most important conceptual relationships and describe the potential of the concept.

ARCHITECTURE DIAGRAMS

An architecture diagram or sitemap illustrates how the concept is organized - the structure of the site. It defines what pages are included and how the different content and functionality fit together to form a cohesive whole. This includes supporting/facilitative functionality as well as core functionality.

The core

The core of the site is made up of 14 pages, clustered in four modules (category A, B, C and D). The modules provide an achievement focused linear set-up giving a clear overview of the runway (see explanation on the next page) and allowing the user to make and measure their progress as they work their way through the system.

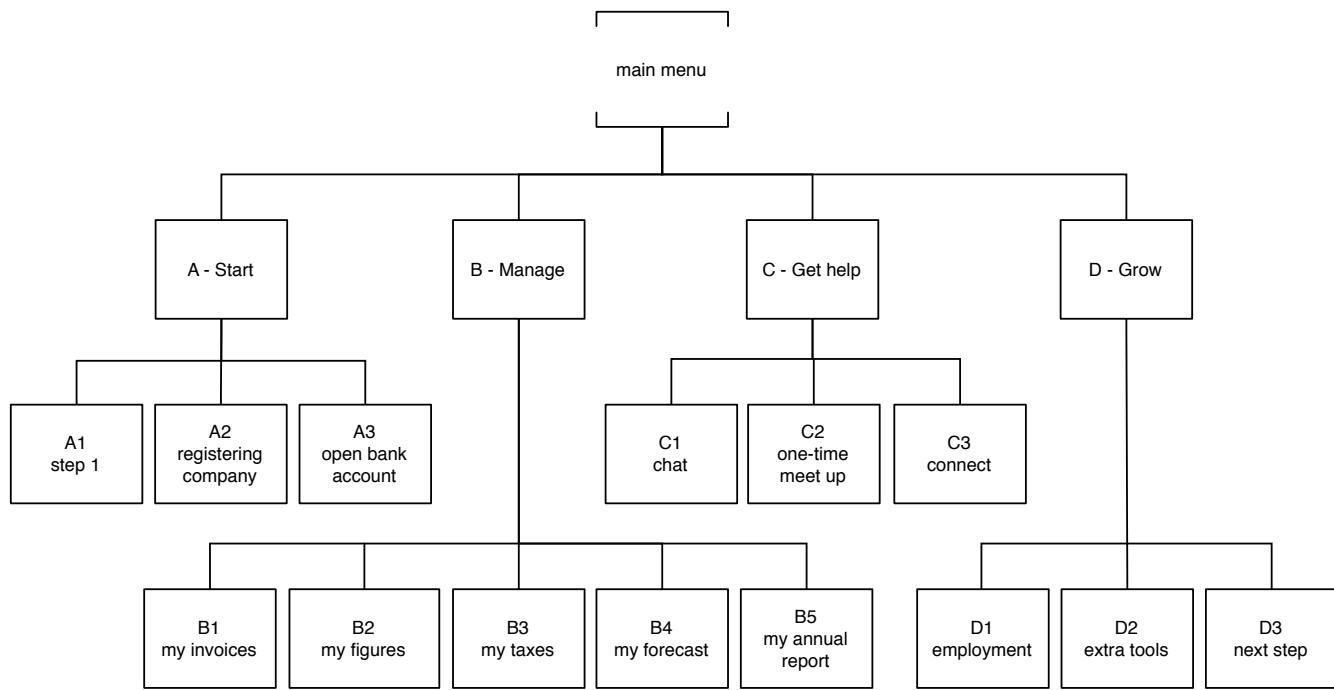


Figure E8. Architecture diagram - the core of the concept.

A - The ‘start’ module includes the very first steps of starting to use the tool and starting a business - filling in some initial data such as company name (A1), registering a company at the Chambers of Commerce and the Tax office (A2) and opening a bank account and/or connecting it to the system (A3).

B - The ‘manage’ module includes the main financial tools used by an early-stage startup entrepreneur: invoicing (B1), simple record keeping (B2), paying taxes (B3), forecasting (B4) and annual reporting (B5).

C - The ‘get help’ module allows for additional support and collaborations with experts (accountants). The user can start a chat (and voice/video call) (C1), request a one-time meet-up for advice (C2) and easily search for accountants that best fit his/her individual needs for when wanting to connect with one (C3).

D - The last module, grow, enables the user to learn more about and manage employment (D1), add additional tools specific to their fields of work such as a hour calculator or simple CRM tools (D2). A final step includes information about what to do next; why and how to upgrade to Exact Online (D3).

RUNWAY

Runway, is a term used in the startup field when talking about the period of time until a company will go out of business, assuming that the current income and expenses are staying constant.

Every page in the system is designed to provide not only efficient and simple functionality but also smart connections to financial parties and stakeholders, support opportunities and relevant knowledge for starting up and managing a small business. Whenever the user has a question, no matter in what part of the system he/she is working - additional support and help can directly be accessed.

The manage, connect and grow modules are to be continuously used, while the start module introduces more of a one-time use case. A user can access all modules and pages, also previously finished ones, since every page includes important information useful to read a second time.

The landing page introduces the product to first-time users and directs existing users to the main page - the dashboard, from where all other pages can be reached.

In Appendix 19 - Detailed description of core functionality - the 14 core pages are defined further by answering the questions: What services are provided within each module - what are the specific needs and problems to be fulfilled and solved for the user?

Supportive functionality

The user can access supportive pages in the site via the top-menu and the footer. A log-in/register option is presented in the main menu in case of unauthorized users. If a user is already logged in this option is replaced by the main menu item: my profile.

Any person can directly access all modules, read all information given and explore the functionality of the site before signing up and creating a user profile. This is an important requirement for attracting a user group that is generally curious and want to know if it is a solution for now and in the future, before committing to it. The login/register/logout page is directly accessible from all pages in the system. A forced sign up is included at the point when a user starts entering data into the system. This action guides the user through a quick sign-up sequence allowing for sign-up via email and password or authentication through their facebook/twitter/google profile.

A profile is created when signing up. Via the profile page, user-settings and data can be added, edited and viewed. Whenever profile-relevant information is added to the system it is automatically added to the profile (such as company name, contact information). The profile also offers an option to upgrade to Exact Online and access to 'my documents' and 'my news'.

The 'my documents' page provides a "Dropbox"-like functionality where the entrepreneur can collect (upload), save, backup, search, categorize (tag) and share all his/her financial documentation. It includes invoices, bills, taxes, annual reports, employee documents such as proof of identification and contracts etc. This archive functionality enables the user to keep all the documents in one place, safely saved in the cloud and accessible everywhere and anytime. It also gives

reassurance to the user since by following the guidelines given he/she can be sure to comply to the rules for documentation set up by the tax office. Many of the financial event modules link directly to the archive. The 'my news' page represents a collection of news-feed posts the user marked as 'saved for later'.

Via the footer the user can access, search and filter frequently asked questions and an 'about' page describing the website; its general purpose and use. The user can get in contact with the different parties supporting the system via 'contacts'.

Final concept designs

During the development of the final wireframes, many ideas for structure and organization of the solution was explored. The author aimed to reach a high level of simplicity and consistency while following conventions for web/mobile development. While developing, selecting and improving the ideas, informal evaluations were done with several UX experts at Exact as well as with people in the startup scene from the network of the author. These discussions proved very important for the process and greatly contributed to the final quality of the results. In this chapter final concept designs are introduced. A partly interactive prototype can also be accessed via: <http://boezeman.com/maria>. Examples of a sketch from the idea generation process can be found in Appendix 20.

Wireframes

Due to limitations in time and resources, not all modules and pages are fully sketched out. The specifically interesting pages from the core of the concept were developed further to a final stage of wireframing.

An interactive prototype, including the selection of core pages and all main interactions, was built in Axure (axure.com). Especially the menu system and the interactions between the dashboard and three other pages were explored: the financial records (My figures), the chat and the search tool (Connect). These were chosen for representing as much of the functionality, content and interactions as possible. Based on this, many other



Figure E9. The dashboard.

pages can be imagined since all core pages share the same main setup, functionality and intended interaction.

Since mobility is an important requirement for startup entrepreneurs, a prototype for a mobile application was also made - representing the interactions of the pages mentioned above in a mobile environment. The prototype can be accessed via: <http://boezeman.com/maria/thesis>.

The dashboard and general page structure

The dashboard is the landing page for recurrent users. The same page structure is for reasons of consistency used in all sitepages. In the top is a main menu, with dropdown submenu for navigation and progress indications. The menu provides progress indications to its users. When all pages within one menu category are up-to-date it is indicated by a grayed out menu text (for example see menu item 'Start' in Figure E9). Pages that are up-to-date, are still accessible to the user, but the color indicates their low priority. The current

menu item is presented in a bigger font. A header below the menu bar, presents the name of the current page.

In the top-right corner a question-mark for learning more about the page is displayed (on click presenting a drop-down two line text field). Next to the question-mark is an icon for the contextual questions tool - to be used when adding questions/comments in the page directly next to the area of concern. If the comment resembles an earlier asked question, an answer is immediately provided. If no answer can be found in the system or if the user indicates that the answer was insufficient, a chat with an expert is initiated. For first-time users additional hints on how to use this feature is given. Below the header follow alerts and reminders - presented in the top-part of the page and therefore clearly asking for the user's attention.

The middle of the page includes the main functionality and content, in this case three panels

The screenshot shows the 'My figures' page of a financial management application. At the top, there are tabs for 'MY DASHBOARD', 'START', 'MANAGE', 'GET HELP', 'GROW', and 'my profile'. Below these, a navigation bar indicates 'Manage your financials' and '1 of 5 updated'.

The main content area displays a table of transactions:

Date?	What?	Tax? (ex)	How much? (incl)	How much? (excl)	Show:
July 3, 2013	Train ticket	6%	€ 22,-	€ 20.68,-	<input type="button" value="all"/>
July 3, 2013	Phone bill	6%	€ 36,-	€ 33.84,-	<input type="button" value=""/>
July 1, 2013	Printing	6%	€ 25,-	€ 23.50,-	<input type="button" value=""/>

Below the table, there are buttons for 'All changes saved' and download/email icons.

To the right, a sidebar titled 'Frequently asked questions' lists several questions with dropdown arrows:

- Why do I need to keep my records?
- What do I have to keep records of?
- What is a P&L?
- What do I need for setting up a P&L?
- For how long must I save my records?
- What other financial statements are there?
- Is this system verified & what does that mean?

At the bottom, there are sections for 'Berend de Vlink // tax specialist' and 'Jon Hansen // accountant' with their respective posts. Navigation links for 'About', 'FAQ', and 'Contacts' are also present.

Figure E10. The 'My figures' page.

presenting a calendar and visual representations of financial key-data and forecast data.

Via the calendar all events, alerts and reminders can be monitored and edited. The calendar can be used in a list, day or month-mode. New posts are easily added via the plus-icon. The user can sync the financial calendar with his/her other calendars (via edit) and decide to preview only a specific calendar such as the financial calendar or to preview them all at the same time.

The key-data presents the incomes, expenses and profit from the business per week, month or quarter. Via buttons in the bottom and the top of the panel the user can easily toggle between the three parameters (revenue, expenses, profit) and periods. A user can zoom in on a specific period by clicking and dragging the cursor.

The presentation of the forecast data is very similar to the key-data. Here the period concerns upcoming periods as opposite to the keydata from

the past. The user can toggle between presenting projections for the next quarter, year or two year periods. For each parameter (for example revenue, expenses, profit) two projection lines are drawn - a best and worst case scenario. In the case of a user that not yet started generating key- or forecast data, a notification will overlay the panel to indicate this. In the background a grayed-out preview of the keydata or (as in Figure E9) the forecast can be seen.

In the bottom of the page, a continuously updated news-feed with expert-posts can be found. On the dashboard this feed presents information regarding all topics, while on other pages only the posts relevant to the content of the page is presented. The full post can be viewed by clicking on the post header and all post can be seen by going to the newsfeed page.

After opening a post it can be 'marked as read' and/or 'saved for later' (and accessed later via 'my profile' in the main menu). Each post is tagged

and when clicking on a tag all posts within that category are presented. Users can share interesting posts via email or social media channels such as facebook, twitter and LinkedIn. The user can vote up/down the posts so that interesting information - highly voted posts - can be presented first to users. Voting up a post also higher the author's expert rating. Experts (i.e. accountants) in the system will gain reputation and higher scores by uploading interesting posts. The user can reach the profile page of the experts by clicking on their names or profile pictures. For a video presenting the dashboard, see <http://boezeman.com/maria/thesis/videos>.

The my figures page

As on every submenu item page, the submenu stays on the page (opposite to the dashboard where the submenu functions as a hover-over dropdown). The submenu presents a logical sequence of actions guiding the user in a step-by-step approach, but nothing prevents a user from taking a different route than the suggested. The current submenu item is marked with a darker fill-color and modules are indicated as finished or up-to-date via a green check-mark. In case of updates needed or alerts, the checkmark is replaced by a red exclamation mark.

On the 'My figures' page the user can manage basic company financials via the revenue and expenses tabs and preview an automatically generated Profit and Loss statement in the P&L tab. If needed an additional Balance sheet can be added. The revenue and expense lists have two modes: a default read mode and an edit mode. The read mode is optimized for easy overviewing and reinforce the impression of the data being safely saved after editing.

Additional options for uploading a file to each post (receipt or invoice etc.) or deleting a row is presented on hover-over as well as on-click in the list. In case of a file already being uploaded the icon for this is presented in both read and edit mode. When clicking on the file icon to the left of a row, a pop-up preview window of the file opens. This makes it easy to transfer information from an uploaded receipt or invoice to the

template. The revenue and expense lists can be filtered to show 'all' or a specific time period such as last week, month, quarter and year. All data is saved and backed-up automatically and can easily be downloaded or forwarded via email. Assuming that a bank account has been linked to the system, all transactions from the bank account are automatically uploaded and added to the templates. This minimizes the work for the entrepreneur and the user simply needs to add the tax rate to each post to finalize it. The netto amount is automatically calculated after adding a tax rate.

Frequently asked questions are presented on the right side of the page. Each question will onclick present a dropdown text-field with an expert answer. The financial tabs panel always stays in line with the active question, to prevent unnecessary (and possibly annoying) scrolling. For a video presenting the 'My figures' page, see <http://boezeman.com/maria/thesis/videos>.

The chat page

The user can ask a question directly via the 'contextual questions' icon in the top-right corner of a page. In addition to this, a chat can be started via the 'My chat' page. On this page the 'expert of the day' is presented with a picture and a small introduction. A chat is initiated by clicking on the big green button - a clear call-to-action. Upon clicking a chat window appears in the bottom right corner. This window overlays all other pages - enabling the user to toggle between pages while chatting. During the chat, an online call/video call or screen sharing can be initiated. After the chat the entrepreneur will be asked via a pop-up to grade the interaction by giving stars to the expert. For a video presenting the 'Chat' page, see <http://boezeman.com/maria/thesis/videos>.

The connect page

The goal of the 'Connect' page is to help the user find a for him/her perfect accountant. Experts in the tool are graded by the entrepreneurs based on the support they give and the value of their newsfeed posts. Top-rated experts are always presented first. The user can toggle between his/her 'own' top-rated and 'all' top-rated experts and filter the search via the matching tool in the

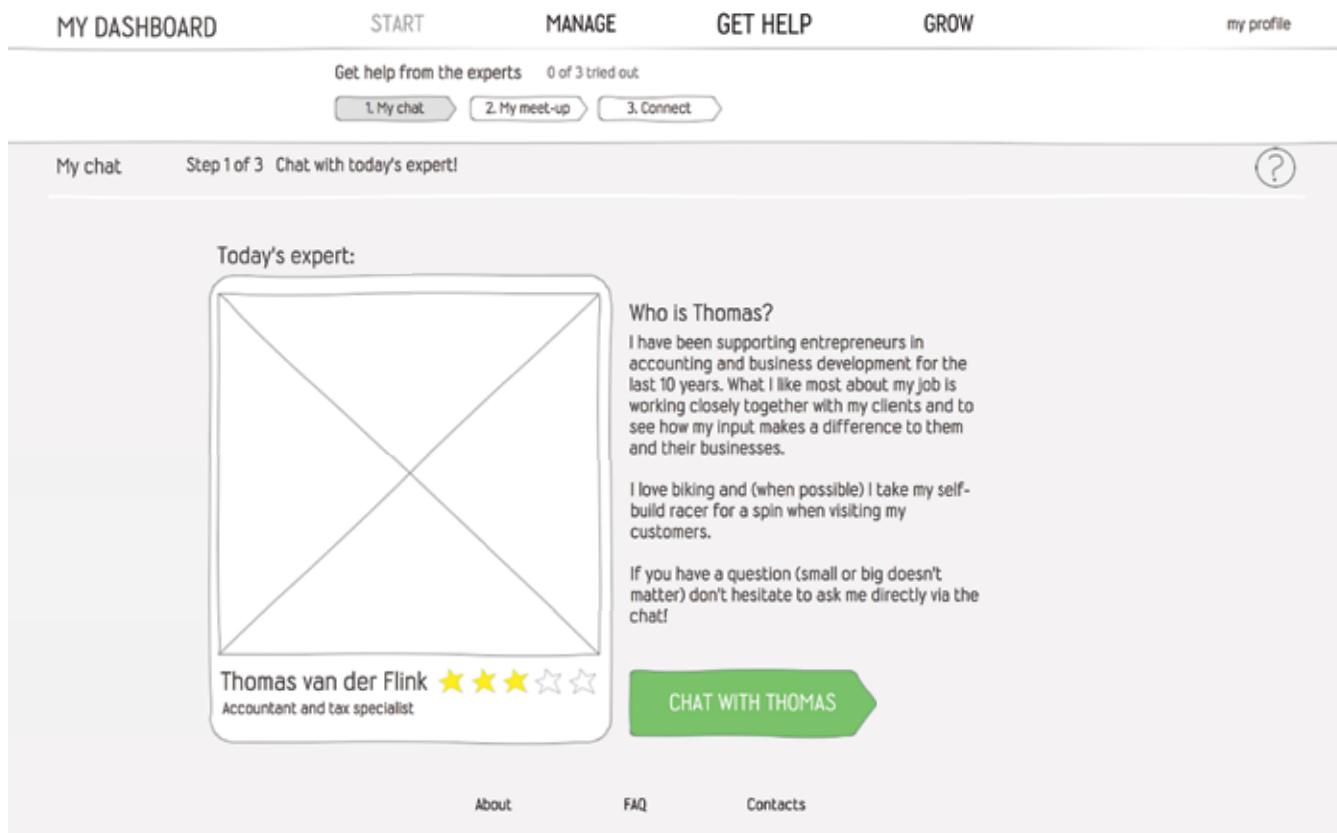


Figure E11. The 'My chat' page.

left-side panel. Users can also search for a specific name or firm via the search field above the results panel. The expert profiles are accessed when clicking on a profile picture, name, or review introduction. Below the name of an expert his/her title and special expertise is presented as a tag. Clicking on an expertise tag leads to a presentation of all top-rated experts with that tag. The search criteria used in the matching tool are price, expertise, ways of collaborating, location and availability. The results (top-rated accountants) are directly updated as soon as any criteria is filled in/changed.

A list of frequently asked questions regarding getting an accountant is presented to the right and news-feed posts with tips on the same subject can be found in the bottom panel.

The system presents people rather than firms, since the personal contact is of highest value to the entrepreneurs. The expert profile pages aim to address this target group in structure and content. The experts are urged to communicate more in line with their customers. This means pre-

senting themselves rather than their firm, adding pictures and using a low-profile, personal language. Entrepreneurs can add reviews to the expert pages. Parts of the reviews can be seen already in the result list on the search page, to motivate further reading. A pre-selection of firms and experts with a startup focused approach support the system. All experts must when signing up provide a similar, pre-defined set of information, for the matching algorithm to work properly. For a video presenting the 'Connect page', see <http://boezeman.com/maria/thesis/videos>.

The mobile application

For the new generation of users mobile functionality is of very high priority. The mobile version of the tool resembles the website in many ways but includes only the most crucial functionality.

The landing page is the Start, 'step 1 page' for first-time users and the last page visited for recurring users. A main menu can be accessed by swiping to the left on the left side of the screen or by tapping the top-left icon. The main menu includes: the dashboard, the start, manage and grow module, a chat page and a connect page.



Figure E12. The 'Connect' page.

From the main menu the user can also manage profile settings, access an application guide and log in/out. The application does not include newsfeeds, FAQ-lists, contextual questions or the 'My meetup page' since that would clutter the mobile interface too much.

All menu and submenu items are supported by icon illustrations. Submenus are presented in the bottom of the screen, active pages are indicated via an inverted text- and icon color and darker background fills. Users can toggle between the submenu items by tapping on the submenu icons or swiping in the submenu. The page view directly switches when a user moves his/her finger from one submenu-icon to the next. Furthermore, users can go to the following or previous submenu item by simply swiping to the left/right in the middle of the screen.

The dashboard includes a submenu with the three core panels from the website version. Due to limitations in space they are here presented one at a time. Scrolling is easy and natural in a mobile environment and in the mobile calendar, additional months/lists or days are viewed by simply scrolling up and down on the screen. Just as in the website version, alerts are given in the top of the page with a direct link to the page of interest. Templates are presented in a similar way, but somewhat simplified as compared to the website version. The user can toggle between revenue, expenses and the Profit & Loss statement (P&L) via tabs. New events can be added by using the plus-sign in the top-right corner. Pictures can be uploaded and reviewed via symbols in the left columns of the lists. For each event a category description, tax rate and price incl. tax



Figure E13-E14. The mobile application, Main menu and Dashboard.

is given. Excl. prices are presented in grayed out text in brackets.

One of the differences between the website and the mobile application is that the 'Chat' and 'Connect' pages are part of the main menu (instead of the submenu) in the mobile version. A mobile phone is a great communication tool and so the application motivates collaboration and sharing with experts more directly. The chat is very similar to the website look and feel. For the connect page top-rated search results are displayed as earlier - in a tab-system. A general search field is located in the top of the page and search results can be further filtered via the matching tool - here accessible via a right-side menu navigation. The user opens the matching tool by clicking on the top-right corner symbol, or by swiping to the

right on the right side of the screen (similar to when accessing the main menu). For a video presenting the mobile application page, see <http://boezeman.com/maria/thesis/videos>.

Further considerations

The architecture diagram and Appendix 19, Detailed description of core functionality provide a detailed and factual view of the concept but it does not allow for a deepened understanding for the concept in relation to its lead user. A scenario is developed for this purpose - making the concept tangible by providing a concrete example of how it could work in reality. Visual guidelines and a few notes on the accountant user interface and the methods of gamification are also given to support the continued development of the concept.

Scenario description

- step into the shoes of a startup entrepreneur
 What makes the concept optimal for an early-stage startup entrepreneur? Lets follow Michel's experiences and thoughts during a few days using 'Exact Easy'.

"It is the 29th of March, a late Friday afternoon and Michel sits down at the table in his small office. He sips on a cup of coffee, number six of the day and sighs a bit when hearing the door slam downstairs. Other entrepreneurs also working in the building are leaving for the day and weekend. It has been a really productive week, busy and fun but there is still a lot to get done. He needs to prepare a meeting with a potential customer for next week and finish a design and call the internet provider and, and, and... Michel's iPhone makes a buzzing sound, he glances at the notification from his accounting app. Ahh, the VAT return!"

Michel smiles to himself while remembering how it used to be. A few months ago his companies finances would be the last thing on his mind. A few times he even missed the VAT deadline and he dreaded the moments when he had to try to get the books in order. "Why did I think it was so hard?!" Well, never mind the past. It all changed the moment he started using 'Exact Easy'.

Michel quickly taps on the notification. The app shows a review of the VAT form, he quickly checks the information, taps the send button and the VAT return is directly sent to the tax office. While having the app open he checks his financial calendar for upcoming events. He quickly edits the date for one of the reminders and checks the expenses for the last month. Everything seems to be in order. He takes a quick look at the diagram presented on the dashboard and smiles again. The last quarter has been good. He got a few new customers and managed to reduce some recurring costs. Earlier he had no real control over his costs and incomes, but now it's almost done by itself.

A few days later, Michel is having lunch with his good friend Peter who also just started a small business. They discuss strategies for their startups and laugh about each others big plans. Peter mentions a few new deductions he heard about and Michel remembers that he read something about it earlier. His laptop is

already on the table and he always keeps the 'Exact Easy' webpage as a pinned tab in the browser. With two clicks he finds the expert post he was thinking about. He remembered that he marked the text as 'save for later' and so it is easy to access via the profile page.

The deduction possibility described in the post does seem pretty interesting and Michel decides to start a chat with an expert to get some further advice. Thomas, an accountant and tax specialist responds directly and they soon start a video-conversation to easier sort out the facts. It only takes a few minutes and Michel is very happy with the help he got. There was a time when he used to worry a lot about the finances. He felt lost and had so many questions he did not even know where to start, even less who to ask. But not anymore.

Thomas was really supportive and Michel gives him five stars after closing the chat. He moves to the tax page and soon finds the deduction in question. A few clicks further, and he already sent a request to the tax authorities."

Michel's explorations of the tool continues, but we stop here. The tutorial-like setup of the tool supports every step taken but also allows for the user to deviate from the pre-defined sequence if preferred. The dashboard and navigation structure in line with common website conventions helps in giving a clear overview and understanding of the site. The linear approach, financial calendar and progress indications give structure and the extensive collaboration with accountants and financial parties creates a simple and efficient system providing additional support whenever needed. A storyboard that further pinpoints the key features in the system can be found in Appendix 21.

Guidelines visual design

This section aims to provide a few guidelines for trends and graphical implementations possible for the concept. A moodboard with example websites is used for communicating the desired interactions, communication and visual style (see figure E15).

Several interesting interaction and style trends can be seen in web-design today. When target-

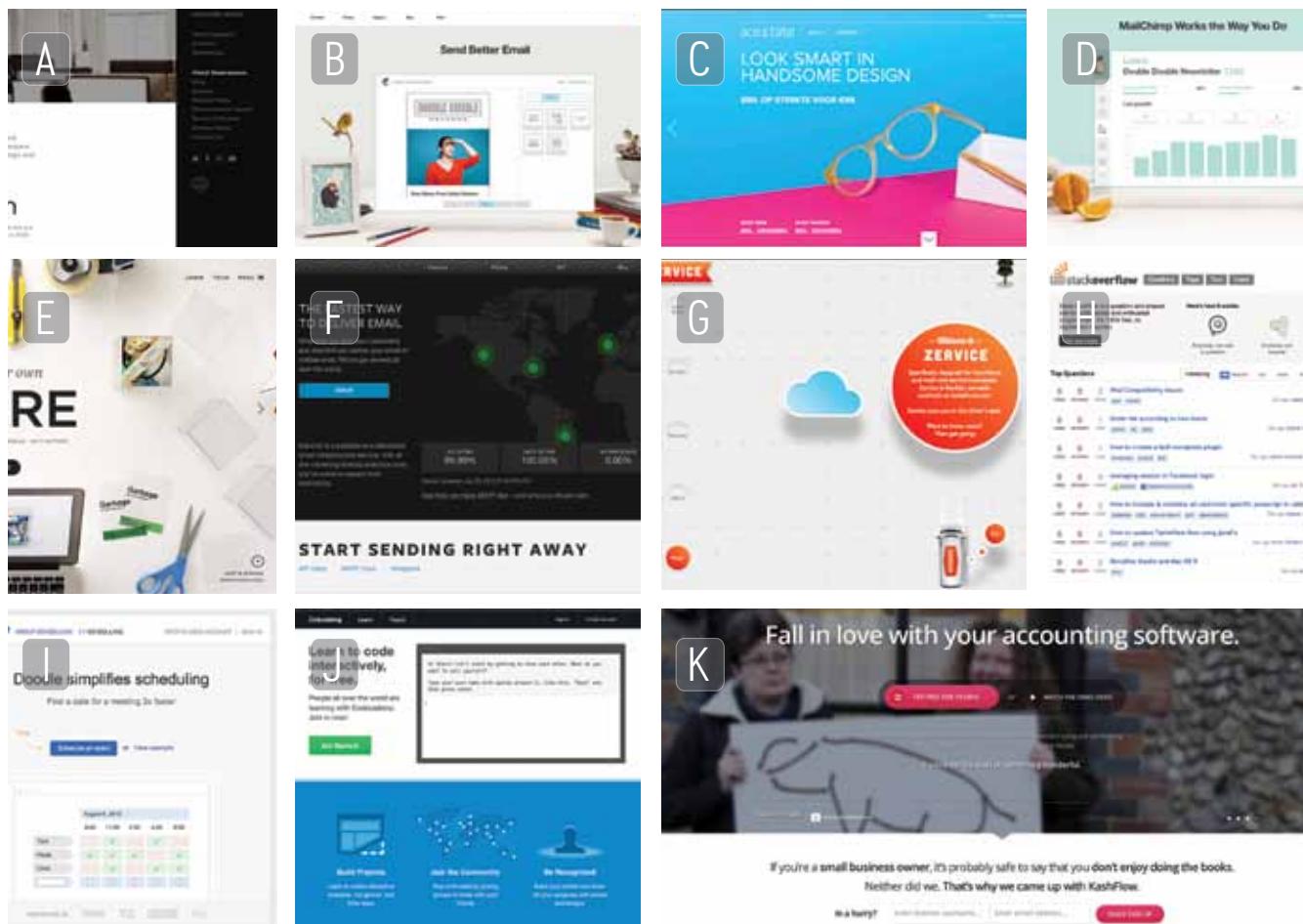


Figure E15. Guidelines visual style.

ing the new generation of users the style needs to communicate a modern feel. Simplicity and minimalism should be tone-giving for the visual design of the concept. Expressive footage can be combined with a few strong background colors, capital text and slick menus to create a crisp design (see for example C, E and F). Pastel colors also go very well together with a minimalist focus, especially when striving for a more professional but still playful style (see B, D and E). It is important to use only a few colors consistently throughout the system.

Many websites today make use of infinite scrolling. This approach goes well together with a minimalist design and can provide a nice user experience - giving the user direct content overview without having to click through entire menu systems. The landing page design invites the user to scroll down and new content is automatically loaded onto the page while doing so. For an example see C. An arrow is presented in

the bottom of the page and content is placed very close to the end line of the screen which invites the user to scroll down for more information. This approach could be used when introducing the concept on the main start-page and for giving a clear description of what functionality the system includes.

Users today demand direct access to things that interest them. To provide instant previews and innovative explanations of tool functionality, purpose and style has become a necessity for webtools. The project research showed how users are reluctant to commit to a software if not being able to pre-assess its quality and use. Several different methods can be used. First-time users of the concept are optimally invited to start directly (without login) and explore the website and all its pages freely. Example J presents an interesting use case for educating people in software development languages. Already from start the user is invited to start learning, a fun and

motivating approach. In some cases this proves impossible and previews/demo's presenting the system are instead presented via (interactive) pictures, videos, storyboards etc. on the startpage. Simple, innovative styles for previewing content can be seen in example B (a sketchy video directly presents how the tool works) and I (the startpage directly presents an example of the use-case).

The use of unexpected elements in design may be an interesting way to spark interest and create attraction. In a clear and crisp style new interactions can be introduced that challenge standard conventions without undermining the usability. Menus can be differently positioned and given a new shape. Example A includes an initially hidden menu that slide-out from the left, instead of as conventionally being positioned in the top-right of the screen. Playful initiatives often present a whole world to explore, for example taking the user on a fictive journey through the site as in example G. The use of 3D effects can help in creating visually appealing designs. Shadows can be used to create a more spacious and layered design as in example B, D and G.

Clear calls to action should be integrated in the visual design. Aim for strong, direct and short messages that indicate a deep understanding for the users of the system - speak on their terms. All of the examples on the mood-board can be seen as guidelines for this, especially see D and K. There is no need to make it unnecessarily complicated - make sure to focus on the essence and clearly indicate where further information can be found.

The accountant tool

Due to limitations in time the focus for the concept development was on the interface used by the entrepreneur. For supporting users, the experts (accountants) the interface is quite different both in terms of looks and functionality. The style used can be more traditional (taking the user's personal preferences into account) and with an even simpler functionality.

The accountant tool is optimally integrated in the Exact Online interface, a software the accountant

is continuously working with on a day-to-day basis. Via this interface he/she will get notifications for incoming questions and comments, be able to respond via chat, view the shared screen of the entrepreneur, add contextual responses as well as create, manage and overview their profile page and newsfeed posts.

The importance of gamification

Gamification techniques would be used for creating an improved experience of accounting, support and marketing activities in the continued concept development. The aim is to motivate use by making the product pleasant and rewarding. A few gamification elements are already incorporated in the concept in the form of check-marks for indicating progress and closure, increasing challenges, expert-grades, newsfeed-voting, match making tools and the use of top-expert lists and peer-reviews.

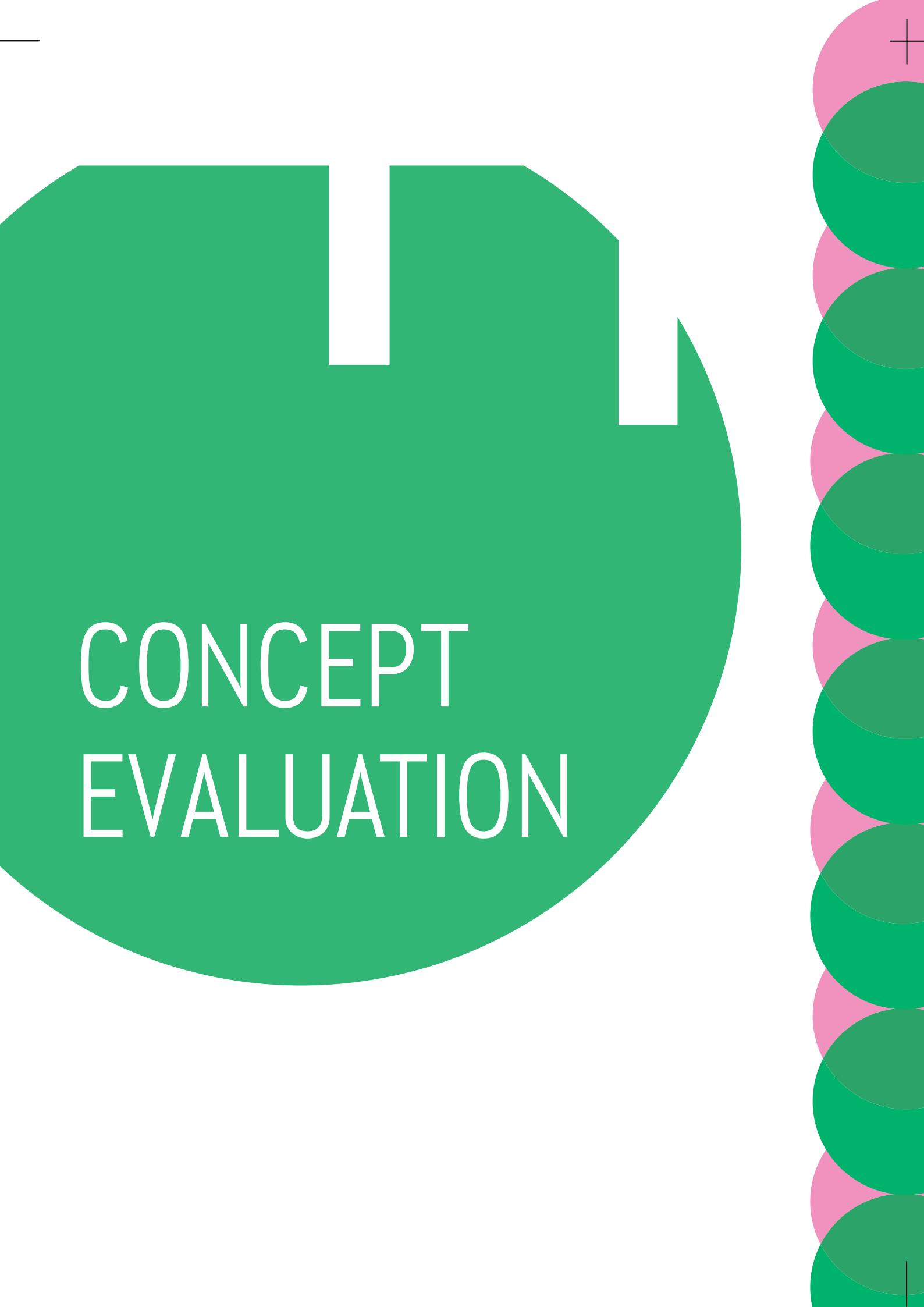
These initiatives could be further promoted and developed and additional efforts could be put into motivating engagement while adding a final layer of design to the content, functionality and style of the solution. The way of communicating should throughout the system be achievement and reward focused. Progress bars could be more prominently included in the design. Badges could be given to users after finishing/updating a module/page or adding a review. High activity could be motivated by special status indicators or points. These indications should be clearly promoted in the system, challenging to achieve, visible to all users and sharable via social media. To further motivate use and encourage competition, user status, type and number of badges can be communicated via leaderboards etc.

GAMIFICATION

Gamification techniques have gained more and more attraction in recent years of software development. The idea is to motivate engagement and competition by using people's natural desires for achievement, status and closure.



CONCEPT EVALUATION



It is easy to get ‘blind’ during the focused process of developing a concept. As a designer you are the expert of the system - very different from the future user. You might fail to see things obvious to others, not being able to acknowledge possible misunderstandings or confusion points. For this reason real users are invited to support the development process. Valuable insights can be gained from this, to avoid mistakes and enable changes to be made early on. This chapter describes the goals, process of and outcomes from evaluating the concept with target users.

Goal and research questions

The concept evaluation aims to provide insights in the form of recommendations for further improvements. These recommendations can be seen as direct guidelines for the continued development of the concept. The goal of the evaluation is to test the sufficiency of the tool by addressing the following questions:

1. Does the tool have potential to support the early-stage startup entrepreneur in starting up and managing the financials of a small business?
2. Does the tool have potential to help accountants initiate new customer relations and collaborate online, more in line with new customer needs?

For a more detailed description of the evaluation goals, see a list of sub-questions in Appendix 22, Evaluation - research questions.

Method

The test is an informal evaluation of a concept not yet developed to the level of detail needed for assessing the full usability and user experience. This restricts the methodology used but does not diminish the value of the test as such. In the case of this project no final, fully-functional tool is developed. The final step of assessment is therefore left out. This evaluation addresses the levels of structure and interactions within a web-based solution - the focus is on functionality and content rather than visual styles.

The evaluation includes three main parts as well

as a short introduction. Throughout the test the participants will be asked to ‘speak out-loud’, a method where the facilitator urges the participant to verbalize their thoughts to enable a better understanding for the actual interaction (as compared to the intended interaction) with the tool and the reasons behind possible issues.

Part 1: Evaluation of the tool in general

The entire tool is described briefly and its potential evaluated according to the research questions. This part of the evaluation addresses the tool in general - the idea behind it, and focuses on a high level of abstraction compared to the following parts of the evaluation. A simplified sitemap and scenario description is used to guide this part of the evaluation (see appendix 21, Scenario - concept key features).

Part 2: Evaluation of wireframes

Part 2 provides for a more detailed evaluation of parts of the concept: the website as well as the mobile application representing the four pages: my dashboard, my figures, chat and connect. The evaluation is done by the help of partly interactive prototypes, scenario descriptions and pre-defined task cards. While trying it out, participants develop a better understanding for the concept and the possibilities it provides; intended interactions, logic of and types of content and functionality.

For the accountants, part 2 is less extensive. The focus is not on testing the prototypes as such but rather on providing a more detailed description of the concept.

The evaluations with entrepreneurs include a slightly different order than above indicated. The tests starts with part 2, continues with part 1 and ends with part 3. This in order to allow for testing of the prototype with inexperienced users not yet aware of the thoughts behind the system.

Part 3: Final interview

The evaluation is rounded off by a small semi-structured interview covering topics that might

not have been brought up during the test. The interview questions can be found in Appendix 23, Facilitation document - Concept evaluations.

Participants

The concept has been designed with two different user groups in mind and the evaluation naturally addresses both the startup entrepreneur and the accountant.

Group 1: Startup entrepreneurs

Three early-stage startup entrepreneurs are recruited for the evaluation study. The entrepreneurs involved are all early startup founders (comparable to the persona in the User segmentation section, see the Conceptualization chapter) here defined as having started their business no more than two years ago. Two of the participants are inexperienced entrepreneurs and active in early-stage startups while the third one also has some previous entrepreneurial experience. The use of participants with various levels of experience increases the chance of gaining rich and diverse results.

Group 2: Accountants

Two accountants with the same characteristics as the contextmapping participants are recruited - accountants from the more innovative group (comparable to the persona in the User segmentation section, see the Conceptualization chapter) that have experience with working with startups.

Recruitment procedure

The recruitment of participants for the evaluation is simplified by the use of contacts already established during the recruitment phase of the user research. A concept evaluation also demands much less from the participant than a contextmapping study which generally makes the recruitment process easier.

Setup

Each evaluation is planned to take about 30-45 minutes. The tests are done at a location best suited to the participant. A facilitation document is created to support the author during the eval-

ations (see Appendix 23). This describes a detailed plan for the evaluation including all steps to take, preparations needed, what to say during the introduction, discussion points, explanations, scenarios, tasks and interview guides. The document will make sure that a similar setup/process is used for every test and that the same information is given to all participants.

Pilot tests are performed with a few persons in the researchers surrounding before the actual tests in order to identify problems in the plan and setup and adjustments are made accordingly.

For part 1 - the site-map is shown on a laptop and a printout of the scenario description will be given to the participants for guiding the discussion. For part 2 scenario-cards (also printed) with tasks will be used. The use of physical cards helps the participant focus his/her efforts on solving the problems rather than remembering the questions, therefore minimizing the mental workload.

Simple mock-ups of interactive wireframes are also used for part 2. These are developed by the researcher in the software program Axure and displayed to and used by the participant via a laptop and web-browser during the evaluation.

Scenario descriptions

The evaluation is guided by short scenario descriptions to help the participants imagine the real user situation and context. The scenarios include tasks - generally in the form of something to be solved/understood etc. by the participant. After going through scenarios and tasks, the participant is given the opportunity to shortly comment and express further problems/opportunities identified during the test. For more detailed descriptions see Appendix 24, Concept evaluation - Scenario descriptions and questions.

Capturing results

The evaluation data - user insights, behaviors and comments - are collected in the form of sound recordings and notes made by the researcher during the tests.

Analysis

After the evaluations, the raw data is carefully studied and interesting parts highlighted in the form of concrete comments. The comments includes raw information as well as an interpretation of the data made by the researcher. They are further studied and organized in clusters. The evaluation outcomes describes the clusters in text form and the improvements identified are translated into lists of recommendations (see evaluation outcomes and recommendations below).

Evaluation outcomes

The five user tests were successfully completed and brought a lot of useful insights for further concept development and implementation. A summary of the outcomes are given below. A more detailed description of the insights together with participant quotes can be found in Appendix 25 Detailed evaluation outcomes.

The attitudes towards the concept were generally positive. Both groups strongly believed that a system like the one presented would be of help when starting up and managing the financials of a business and for creating early relationships and collaboration possibilities between startups and experts.

Especially the step-by-step guidance, the bank connection, opportunities to get an overview of the runway and a better understanding of what needs to happen (and when) was seen as very positive. The simplicity of the system was identified as a strong point. The test users described the system as: easy to use, understandable and with the right look and feel for the inexperienced starter. Concerns were raised by one accountant regarding the current simplicity of the tool. In order to provide a complete bookkeeping system - further functionality might have to be included, adding complexity to the system.

The concept has potential to motivate working more in line with new user needs. The accountants were positive to the new way of marketing themselves and acquire new customers. They described supporting the system as a long-term in-

vestment and did not see any problems with the new style of working, i.e. regularly being online to respond to the questions asked by the entrepreneurs in the system.

The entrepreneurs indicated that using a system like this would potentially motivate them to upgrade to Exact Online when/if necessary. The accountants also mentioned how a system like this might help them better get to know their target users; their behaviors and needs.



I think in that situation Exact would be the number one company to at least explore. They have shown me they understand my needs and probably know what I need next. And then I can easily import and continue to use my data

The menu system was during the tests expressed as intuitive and clear. The participants found the pages described in the scenario descriptions without help and on a first or second try. By simply viewing the menu and submenu, the participants could by simply viewing the menu and submenu figure out the function of most pages. Only the functionality of the 'Connect' page seemed unclear before accessing the page. The entrepreneurs expressed how they would rather see the 'Start' module - mainly used once when starting up - to be included in an initial wizard and not as now part of the main menu.

The participants expressed how information, tips and rules about for example paying tax, different employment possibilities etc. would be very handy for the startup entrepreneur. Forecasting tools was noted as value adding - the participants expressed how information for the future and support in decision making is more relevant than simply looking at past events.



I will be your first expert!

The participants were generally positive to the idea of experts supporting the system. They especially liked the focus on creating a personal connection. The entrepreneurs intuitively and directly understood the grading functionality. A few ideas for additional matching parameters were noted. Two participants mentioned that some background control of reviews and ratings would have to be incorporated to protect the experts from unfair treatment by users. This would also add to the trustworthiness of the system.

All participants strongly expressed that for the success of the system, the price for using it must be very low and the support should be offered for free. This is important for the tool to function as a proper communication and collaboration tool for early startups, with a tight budget and for the accountants, wanting to connect with as many entrepreneurs as possible.

The mobile application was noted as a nice addition to the website version. Especially the decision to make the chat more prominent was appreciated by two of the entrepreneurs since they found chatting to present a very likely user case for an entrepreneur on the move.

Recommendations

A list of recommendations has been put together to support further concept development and improving of the system. The recommendations follow directly from the insights gained in the concept evaluations. A few recommendations concern only smaller changes. These can be found in Appendix 26, Recommendations - small changes. The below recommendations were noted as especially important for bringing the concept to success. In the case of further development it would be advisable to:

- Consider the general focus of the solution and improve the system accordingly. Should it represent (A) a simple solution for getting started, keeping track of money and paying VAT returns with easy upgrade to Exact Online for annual reporting, or (B) a complete system made as simple as possible, but with some added complexity compared to now?

- Investigate added functionality that might be necessary for the annual reporting to make sense.
- Make a tablet version to fully adapt to the flexible and mobile work style of the startup entrepreneurs.
- Make sure to involve the users in the continued development. No one knows better what they need than the entrepreneurs themselves. Similarly, for accountants to support and recommend the system, it must be a great tool that they fully stand behind.
- Make sure that the user always and directly can get a good idea of what the system incorporates – the look and feel as well as the functionality provided – before deciding to commit to it.
- Put more attention to reviewing possibilities in the system since this potentially could create further opportunities for collaborations between the users and the experts.

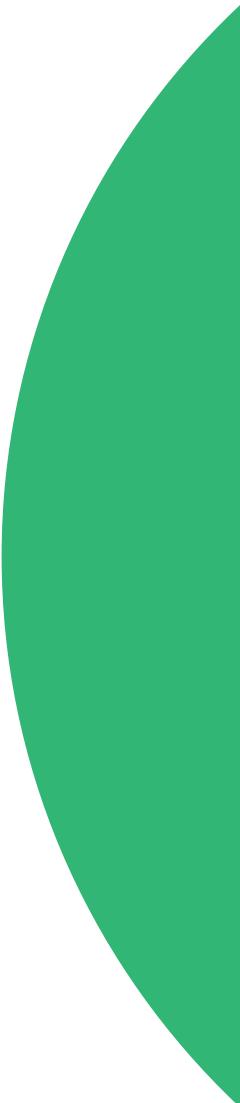


I would like to be able to review my VAT returns for example before sending it to the tax office. I fill in everything myself, and get help checking it...

- Look into possibilities to further motivate interaction between users and experts. This could be done by adapting gamification approaches and including rewards etc.
- Use the data collected in the system efficiently. It can provide information to accountants about the needs and behaviors of their clients and can further help minimize the workload in giving support.
- Look into possibilities to further minimize the content per page. Especially on the pages with templates to use, FAQ could be given a hide/show option.
- In the case of implementing a calendar, prioritize making it syncable with other calendar systems since the usefulness strongly depends on this functionality.
- Explore an optimal solution for the start module, after looking closer into how to in-

- corporate the connections to the Chamber of Commerce, the Tax office and banks.
- Explore ways to ensure that the entrepreneurs using the system are serious and not exploit the system, so that the efforts put into helping them are worthwhile for the accountants.
 - Focus on including proper background control of reviews and ratings to protect the experts from unfair treatment by users.
 - Put efforts into further researching an optimal paying model and level that will motivate (serious) usage and create a trustworthy impression.
 - Add more direct introductions to guide the use of more innovative features (such as contextual questions and upload of documents in 'My figures' templates). Make sure to clearly indicate what item the instruction concerns.
 - Look into possibilities also for entrepreneurs to network and learn about each-other via links to profiles in the system and LinkedIn profiles. This could potentially higher the trustworthiness of the peer-reviews.

- Focus the development on ensuring good collaboration opportunities between the users. For the system to work as a marketing tool for accountants, the experts must be given the opportunities to regularly connect with users and provide extensive support to the entrepreneurs.
- Invest efforts into exploring the optimal number of experts supporting the system.
- Enable easy export and import from this system to another. This includes an one-to-one conversion to Exact Online and easy export to formats used in other systems such as Excel. The work done by the entrepreneur in this system must be highly valued and motivate continued engagement also in other systems.
- Make sure that the role of Exact as well as the role of the accountants in the system is made clear to the users.
- The above improvements should be carefully considered before implementation since every addition might complicate the system.





DISCUSSION, FINAL CONCLUSIONS & RECOMMENDATIONS

This final chapter of the report provides a short discussion of the project process, conclusions and general recommendations. An outline of personal learnings can be found in Appendix 27.

Project phases

A lot of things can be said about the process of this project. This section provides a brief discussion of the project phases.

User research

User research in industry usually involves bigger studies with fast processes, more participants and analysis within large teams of researchers. In this case the total number of participants is below 30, providing results that were analyzed by one single student researcher, who also used the insights to develop a concept design. These factors might influence and bias the results.

The aim was to, as far as possible, avoid biased results by using clear methodologies for guiding the process and triangulation (confirming the findings with multiple sources), continuous documentation and discussions of process and results with knowledgeable people and target users.

The research done in the project is qualitative and providing results directly applicable to the participants but not necessarily providing outcomes for drawing general conclusions concerning all target users. This should be noted as a limitation. The significance has not been verified and for this more research in the subject would be motivated.

Diverse working methods were used throughout the project. Physical and digital mediums were combined to best suit each situation and purpose. Simple sketches and illustrations were continuously used as a idea generation and communication tool.

An interim presentation within Exact and the supervisory team was held after the main analysis phase. The feedback from the presentations proved very important for the continued concept development phase. Weak-points were identi-

fied and by making these realizations early on, enough time was left to take the appropriate actions.

Conceptualization

The concept development phase was a continuous exploration of new fields, tools and methods. A methodological approach supported the process and motivated continuous learning.

Evaluation

It should be clear that for fully assessing the quality and market for the concept, further evaluations with more participants should be done. Due to time limitations the current evaluation was very small, only including a total of five users.

Main conclusions

The project was initiated with the ambition to develop and communicate a deep understanding for new user demands and future challenges related to accounting. The goal was further to identify opportunities for Exact to better support the needs of accountants and startup entrepreneurs.

User research provided extensive information about the context and the changing market of accountancy, the world of the target users and gaps and touch points between them. User needs and wishes were identified and translated into a concept exemplifying opportunities to create an improved experience of accounting for startups, new marketing opportunities for accountants and ways to improve the collaboration between the two groups. The project can along with this process be concluded to have delivered the proposed outcomes.

A simple solution for bridging the gaps between the user groups proved impossible to find, because accountants and startup entrepreneurs have very different needs and wishes. The situation for accountants today is challenging and new times and user demands will likely motivate, and if needed enforce, future adoption. The accountancy profession will change with time which hopefully evens out the gaps now apparent.

The over-ambitious goal to find a quick-fix to the problem was translated into a more realistic approach to motivate accountants to step-by-step change their working styles. A design concept was developed following this approach and additional objectives, and the project should be seen as a step in the right direction.

The concept evaluations indicate a design result fulfilling its main goals; the tool shows potential to (A) support early-stage entrepreneurs in starting up and managing the financials of a small business and (B) help accountants initiate new customer relations and collaborate online with their customers. Further work is needed for getting the concept to a final state and the recommendations following from the user tests should support this development.

A simple tool to support the inexperienced startup entrepreneur with support, information, connections and tools and for motivating early support and collaboration with accountants so far attracted great interest from participants and people involved in the project. A big market for the concept can be assumed but further research would have to be done to verify this. As seen so far, 'modern' accountants see the necessity to develop new ways of working and marketing themselves. More traditional accountants are likely to show less interest in these initiatives, but the accountants involved saw great opportunities in the concept and were eager to support developments of this kind. They also imagined many of their colleagues to be of the same opinion. Generally the tests indicate a final outcome and design of high practical value and with potential for future implementation.

Final recommendations

Many insights are gained during six months of extensive research, not all of them directly related to the project objective but of potentially high value for further development within Exact. Some last general recommendations are here given to Exact concerning developing solutions for startup entrepreneurs and accountants.

As mentioned earlier not much previous litera-

ture relates to the scope of this study. Optimally the project can function as an example to motivate further initiatives to support the changing world of accountancy. The outcomes from this research can hopefully motivate additional research to be done within the field of finance, accountants and startups.

In case of developing a functional, further detailed solution based on the project concept, iterative development including usability and user experience evaluations with more participants and further developed prototypes is recommended. It was not possible to do so during this project due to the (time) restriction of developing a concept (and not a final product).

For developing solutions more in line with the needs and wishes of startup entrepreneurs, apply the same main focus to them as now is directed to the group of accountants. The best way to understand the needs of this group is to work with them. For the future success of Exact new strategies are needed. As a way to support this development, work and collaborate with and hire more startup entrepreneurs.

A partly new strategy would be needed for Exact to address and attract startup entrepreneurs as customers. It is a challenging aim and for pulling it off devotion and a clear focus is necessary. I see opportunities for Exact to share the venture of entering the new startup market with accountant and accountancy firms. Both Exact and these firms would gain from a possible attraction of startups (i.e. new customers) which can motivate collaborations in terms of investments for supporting and developing great solutions in this direction.

Exact is perceived as providing complex systems for bigger companies. Changing this image will take time. One thing became very clear when speaking to startup entrepreneurs during this project - very few of them see Exact as a solution to their problems. In the case of developing a tool targeted at startups, Exact should therefore consider marketing it under a different name than Exact Online.

If only parts of the ideas presented in this report are implemented I would strongly recommend to review how these fit with the user needs to ensure the development of a viable product. Based on the outcomes from the user research and evaluation, I would in case of partial implementation recommend the following approach:

1. Focus on developing a better onboarding experience for Exact Online.
2. Develop a simple but great system supporting the early-stage entrepreneur not yet ready for Exact Online.
3. Focus on innovative, incorporated support and communication tools for motivating collaboration between accountants and entrepreneurs.
4. Develop a rating system of accountants to support matching between accountants and entrepreneurs.

Many ideas were developed during the course of this project. At one point the vision proved to be too big for the time-frame and a focus for the concept development was necessary. This was a wise decision but I would still like to recommend further investigation into the less developed ideas.

The research done shows that Exact Online would benefit from focusing their efforts on sup-

porting entrepreneurial business development activities. I see great opportunities in providing ways for entrepreneurs of all levels to network within Exact, use the data provided in the system as a way to get to know current and future customers and for benchmarking opportunities.

I would like to conclude this report with a final word of advice to Exact.

Adapt an ecosystem thinking and provide added value to the customers by connecting all potential stakeholders in one single place. Provide exchange of data to (as well as from) stakeholders and make external cooperation parties promoters of the Exact products.

For the future of Exact, start looking at the company more as a network for sharing knowledge and connecting people than as a business software provider. Develop the marketing strategy and the look and feel of the products to attract young entrepreneurs. And think about what impression to give. Move away from the single focus on bookkeeping and more towards the message and user experience aimed for - tell the users in words as well as in actions that: You are Exact. You understand the entrepreneurs needs and you care!

Epilogue

As usual when getting close to the end of a project, I wish I had more time. Time to further improve the concept, time to develop it to a final stage and time to launch and see the ideas in action. There is never enough time.

Still, in the case of this project I am satisfied to know that my efforts and the outcomes communicated have proven to be useful to Exact. Most importantly I am proud to say that my work in one way or another will benefit the entrepreneurs and accountants using Exact's products in the future. That is for me the best possible ending of a project.

Maria Arvidsson,
Delft 2013-08-16

Special thanks

A project like this is not done by one person alone. A lot of people have proved of invaluable importance on a practical as well as emotional level, ensuring the success of this process. I would therefore like to end with a big thank you to:

My company mentor Joline Boschman (Exact), my university mentor Wei Liu (TU Delft) and my supervisor Gert Pasman (TU Delft) for the continuous guidance you provided. Thanks for always being there, ready to answer my questions, provide direction and a fresh perspective and for supporting me in my struggles and sharing my successes. It was a pleasure collaborating with you.

Eelke Boezeman for always believing in me and my work. Thanks for your patience, for the many endless evening discussions we had and for all ideas and tips you gave me on the way. And most of all thanks for being so annoyingly critical. You encouraged me to aim for the stars, to try harder and never stop improving.

Exact employees for the everyday ‘gezelligheid’. The great support and positive and interested attitudes from colleagues and managers around me, made the six months at Exact very nice and fun.

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