From start-up to scale-up

A study about the characteristics of starting architectural firms and their business models

Master thesis

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Preface

As this is the completion of my master thesis at the faculty of architecture, I wonder how many architectural graduates will start their own business. I am part of a new generation that will possibly change the built environment, as other generations have changed it to the way we can observe it today. Architecture of the 21st century has its own opportunities, challenges and threats. Architects will deal with this new context and form their businesses. But how do those businesses look like? Are the businesses of the new generation architects different from the previous?

The business part of architecture has interested me since I started my Bachelor Architecture at the TU Delft. During two internships at various architectural firms, I studied how these firms deal with the ‘management’ side of their practice and how creative people can be optimally managed. In my opinion, some architects have a lack of knowledge in this field and developing this knowledge could benefit their practice. With this research, I aim to gain more knowledge in the business models of starting architectural firms. Also, conducting a scientific research and linking this to daily practice is a personal learning objective I want to attain. It may contribute to my academic skills which I would like to develop because I hope to continue this research in practice in an architectural firm and possibly in a PhD graduate.
Executive summary

Research background and problem statement
The creative industry has already been for years one of the fastest growing sectors of the Dutch economy. Architecture is among the core activities in the creative industry. Dutch architects are renowned worldwide for their radical and pragmatic approach and form famous Dutch export product. Today, the architectural firms that belong to this generation determine the face of Dutch architecture. Even though the crisis hit almost all architectural firms in the Netherlands, the youngest generation are being hit particularly hard by the rapidly changing economic reality. This younger generation, driven by the crisis, will have to find opportunities to radically change the face of architecture.

The recovery of the Dutch construction industry shows a slight growth in the architectural sector. New projects are initiated and new architectural firms are being founded. Starting architectural firms form a new generation which leans less on the traditional profession as architect but developed a more commercial and practical attitude (Klooster, 2013). With a more commercial and practical attitude, it could be expected that the attention for the business side of a firm would increase. Nonetheless, the business side of the architectural practise in general has been studied scarcely and in particular the business models of starting architectural firms.

The phenomenon of a ‘starting’ business is hard to define, especially when looking at the architectural practise. Resulting from an explorative interview with the Royal Institute of Dutch Architects (BNA), a clear definition of the Dutch starting architectural firm is lacking. Nor in scientific literature nor in practise a consensus is found about the concept of starting (architectural) firms.

Despite whether a firm is in its starting phase or exists already for some time, an architectural firm is like any other company subjected to think about running and maintaining a business. In order to achieve this, a clear business model or strategy needs to fit with the firm’s mission and vision. In other words, every company, and therefore also the (starting) architectural firm, needs a business model. However, this has not been studied yet for starting architectural firms. A Dutch research project called FuturA studies business models and governance in architectural firms, but focuses more on the established firms rather than on starting firms. The hypothesis is that business models in starting architectural firms are significantly different from the models of established firms as starting businesses deal with more insecurity, inexperience and a smaller professional network. It is assumed that the lack of a business model could result in missing opportunities, struggling with financial issues and bad management.

The following question forms the main research question of this report: What are the explicit and implicit characteristics of starting architectural firms in the Netherlands and what characterises their business models? This main question will be answered through the following sub-questions:

1. What is a starting business?
2. What is a business model?
3. What characterizes the starting architectural firm in the Netherlands?
4. What characterizes the business models of starting architectural firms in the Netherlands?

The aim of this research is to gain more insight on two aspects: (1) characteristics of the starting architectural firms and (2) the characteristics of the business models of those firms. The results are relevant for starting architects as this may help them to develop business models that are future-proof, to improve managerial thinking and might increase business opportunities within the sector. In addition, this research is also relevant to the faculties of architecture to give an advice on what kind of knowledge is missing in the educational curriculum to
prepare architectural graduates to become a successful practising architect. This advice also relates to The Royal Institute of Dutch Architects on how to guide starting architects from the moment of graduation. This study contributes to the construction management literature and in particular to the architectural design management literature.

Methodology
This research explores several aspects of the ‘starting architectural’ firm in which little research is available and consequently paradigm on further research is lacking. Therefore, this research adopts the method of Eisenhardt (1989) of inducting theory using case studies. Her method, called Building Theory from Cases, is appropriate when there is no grounded theory and/or paradigm yet. It uses several different qualitative and quantitative methods in order to increase the information availability. The research process of Eisenhardt’s method is (highly) iterative, meaning it continuously loops back and forward.

<table>
<thead>
<tr>
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<td>SQ 3: Characteristics of a starting architectural firm</td>
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<td>SQ 4: Characteristics of a business model in a starting architectural firm</td>
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Figure A: A detailed overview of the data collection methods used for the different research questions

The data collection methods consisted of:
- *Explorative interviews;* The explorative interviews support the problem statement. The interviews have the purpose of ‘exploring’ the problem by letting the interviewees tell their story in a more free way so their experiences with the research topic would arise naturally.
- *Literature review;* By means of a literature review, both the current state of knowledge as well as knowledge gaps in a certain field of study will become clear. Four fields of literature are used for building the theoretical framework: start-ups and entrepreneurship, management, Professional Service Firms, architecture design management.
- *Questionnaires;* The questionnaire forms the quantitative data collection method in the empirical part of this research. It serves to describe the population on which the research is aimed, namely the starting architectural firm. An electronic mail is sent to 61 starting architectural firms in the Netherlands.
- *Case studies (workshops),* The case studies form the qualitative data collection method in the empirical part of this research. A selection of the respondents of the questionnaire has been interviewed according to a semi-structured interview set-up. The collected data have been coded and presented according to the business model structure.
Altogether, in order to make the connection between the research questions and the data collection methods, figure B shows which questions will be answered by which data collection method. In figure A the research organization has been summarized. It depicts how the research organization corresponds with the data research methods in order to come to the research findings.

Figure B: research organization

Conclusion
The definition of what a starting architectural firm is can be derived from the explicit findings from the questionnaire as well as from more implicit findings from the business models in the case studies. From the questionnaire and the case studies it appeared that the definition of a starting architectural firm is related to the market position and the income stability. The market position indicates whether a firm already gained and/or defined a certain niche in which they want to focus on and the stability of income indicates whether they are able to generate the majority of their income within the market position they have defined. The start-up phase of an architectural firm can be characterised if the two previously mentioned aspects have not been reached. In other words, a starting architectural firm is starting as long as the market position is not (yet) specifically defined and when the income stream is not (yet) stable.

The characteristics of the definition of a starting architectural firm can also be found in the characteristics of the business model. Three kinds of transitions within the business models have been observed during the case studies: (1) transition in focus, (2) transition in epicentre and (3) transition from a mismatch within the business model. The business model of an architectural start-up characterises itself by its strong focus on the value proposition and the definition of a matching market position and client segment. The epicentre lies in the client segment aspect of the business model and often there is a mismatch between the value proposition and their cost and income structure. In the case studies it has been observed that there is a transition within the business model over time. A transition of focus and epicentre takes place towards the optimization of organisation processes in order to grow in the amount and/or type of project. It has to be noted that the moment in which a starting architectural firm is not anymore starting, is more a process rather than a clear and specific milestone. There is transition away from a start-up that moves towards a scale-up. The moment in which the transition takes place appeared to be mainly linked to the amount of work experience the architects have before founding the firm. The firms with founders with previous work experiences turned out to go through the start-up phase faster than the firms without previous work experience.
Reading guide
This report outlines a graduation research on the business models in starting architectural firms. This report has been divided in four parts: part A (chapter 1-5) consists of the actual research design, part B (chapter 6) is the theoretical framework, part C (chapter 7) outlines the findings of the empirical study and part D (chapter 8 and 9) consists of the synthesis of the findings, the conclusion, the recommendations and limitations of the research. The appendices consist of supplementary material and information.
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Acknowledgements

After an intensive period of nine months, today is the day that I am writing this note of thanks as the finishing touch on my master thesis. In the last months I have learned a lot, not only in the scientific arena, but also on a personal level. Writing this thesis has had a positive impact on myself and on my future career choice. I would like to reflect on the people who have supported and helped me throughout this period.

Foremost, I would like to express my sincere gratitude to my main mentor Ir. M. Bos-de Vos for the continuous support, for her patience, motivation, enthusiasm, and involvement. Her guidance helped me in all the time of research and writing of this thesis. I could not have imagined having a better supervisor and mentor.

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starting architectural firm
1. Introduction

The 21st century is characterised by its technological improvements, sustainability, innovation, creativity and entrepreneurship. Many accelerator and incubator programmes on international, national and regional level try to empower innovative ideas. Examples of governmental programmes are Horizon 2020 (E.U.), Joint Programming (E.U.), INTERREG (E.U.), CLICKNL (Netherlands), Cultuurlening (Netherlands), Stimuleringsfonds (Netherlands), Starters International Business (Netherlands), Dutch Good Growth Fund (Netherlands). Many of these governmental programmes aim to create more jobs, build a greener society, improve our quality of life and maintain competitiveness in the market (EuropeanComission, 2016). Also some non-governmental accelerator and incubator programmes are widely known, such as Y Combinator, Amplify, Idealab, Kickstarters, Rockstart, Lean Startup Machine and YES!Delft. Accordingly, from several fronts there is a desire for the creative industry to accrue.

The creative industry has been one of the fastest growing sectors of the Dutch economy for many years. Their core activities consist of creating form, meaning or symbolic value but also the way in which they shape these activities, the creative innovation process, belongs among the core activities. Architecture, fashion, gaming, design, advertising and new media encompass the creative industries. They find their existence in creativity, innovation and entrepreneurship (RVO, 2017).

- consists of 144,100 companies (11% of all companies in the Netherlands), and 186,000 FTEs (2.6%);
- more than 40% is self-employed, and mainly small and medium-sized businesses;
- has been growing faster than all other sectors for years, with an average over 2005-2015 of 2.3% per year compared to a national average of 0.4%;
- is responsible for 1.8% percent Gross Domestic Product growth per year;
- has an annual turnover of € 16,800,000,000 (2.8% of GNP);
- and an added value of € 11,802,000,000 in 2015 (DCC, 2017).

Dutch architects are renowned worldwide for their radical and pragmatic approach and form a famous Dutch export product. The architectural firms that belong to this generation determine the face of Dutch architecture as it is today. For example, MVRDV, West 8, OMA, Erick van Egeraat, Kaan Architecten, UNStudio, Architekten Cie and Mecanoo are internationally renowned names with an impressive repertoire of projects all over the world. However, a new and younger generation has yet to emerge. Very few have managed to successfully establish a new practice (Den Hartog, 2010). According to Den Hartog (2010), this is due to the responsibility of ‘having to be better than the previous generation’ and the ever-fiercer competition resulting from globalisation. While the youngest generation is being hit particularly hard by the rapidly changing economic reality, they will have to find opportunities to radically change the face of architecture.

Also the field of architecture invests in innovative ideas and young talent. Perkins+Will Innovation Incubator (U.S.A.), RIBA Incubator (U.K.), Next Step Program (Netherlands) and Startruimte010 (Netherlands) are examples of accelerator an incubator programs that are especially designed to support starting architects in setting up a firm and develop their ideas. These programs have been established after the financial crisis of 2008 and designate a recovery of the construction industry.

In the Netherlands, the recovery of the construction industry causes slight growth in the architectural sector (volume growth 1% to 3) (Rabobank, 2017). According to the Dutch Central Commission for Statistics (CBS) 3,635 new
architectural, engineering and technical design services businesses have been founded in the period from 1-1-2014 until 1-6-2017 (CBS, 2017). In the same period, 114 starting architectural firms have been registered in the Dutch Chamber of Commerce (KvK, 2017) and 1,138 architectural firms have been registered in The Royal Institute of Dutch Architects (BNA, 2016). Hence, there is growth in new architectural firms.

It seems that with the increase of work in the construction industry, the desire for innovation from (non-) governmental institutes and the increasing amount of supporting programmes, there is an abundance of encouragement for architects to start new businesses. However, an innovative and creative idea does not stand on its own. The organizational and financial structures are the underlying forces that make the idea come true. The starting architectural firm is no exception on this. In 2005, Klooster (2013) conducted a survey among young architectural firms about their position in the economic market. In her findings she concluded that most of the new firms were being established after winning an architectural competition or by getting a residential project from a family member. However, after 2008 this changed due to scarcity in projects as a consequence of the financial crisis. The new architectural generation leans less on the traditional profession but developed a more commercial and practical attitude, as they have to look actively for projects themselves (Klooster, 2013).

With a more commercial and practical attitude, it might be expected that the attention for the business side of a firm would increase. However, there has not been much scientific literature conducted about the business aspects of architectural firms that proofs this assumption valid. The business side of the architectural practise in general has scarcely been studied. Since 2013, a research project called FuturA has been initiated by the Delft University of Technology, Radboud University Nijmegen and the Royal Institute of Dutch Architects (BNA). This is one of the first large research projects studying the governance and business models of architectural service delivery. In the field of Architectural Design Management, literature is available on the management of internal processes, the position of the architect in tendering processes and project organization. However, scientific research focussing on starting architects is rather limited.

This research focuses on two concepts: starting architectural firms and business models. However, before elaborating the problem statement and the relevance of this research, a preliminary definition of these two concepts should be imparted.

1.1. Starting architecture firms

In the context of starting architectural firms, it is important to define what ‘starting’ means, as there is no unilateral definition found in literature. In order to introduce a definition, the requirements of participation for several young architect prizes in different countries have been analysed. In the United Kingdom, the requirement to participate to these kinds of awards is when a fully qualified architect has been practising for 12 years or less (BDonline, 2014). In the United States the requirements are when the firm is in good standing and have been licensed to practice architecture fewer than 10 years (AIA, 2017). In both cases, there is no reference to the age of the participants. On the other hand, in Canada and in the Netherlands the requirement for architect is 40 years old or younger (Architectenwerk, 2017; RAIC, 2017). Hence, there is a distinction between age of the firm and age of the architects, which is indirectly linked to the amount of practising years of an architect.

The age or experience of the architect does not necessary correspond with the age of the firm: for example the architect has been practising for several years before founding his or her own firm. For the preliminary definition, the emphasis is on the age of the firm and not on the age of the architect or the amount of experience in his work field because the group of starting architectural
firms with founders with little or no experience is assumed to be too small for this research and therefore the difference between a starting firm and a starting architect is not explicitly differentiated in the preliminary definition of a starting architectural firm. Nevertheless, there is an awareness of the distinction between these two and therefore it will be discussed in the empirical part of this report.

According to Sethi (2016) the average start-up time amounts between 2 and 3 years before being able to commercialize. The architectural business however ‘commercializes’ a bit slower as the project duration in architecture takes longer than businesses that develop other products. In 1-4 years the firm is assumed to be able to built up a ‘small’ portfolio and even hire some employees. The firms that are older than 4 years have, due to their experience and acquired portfolio, the advantage of having a certain status and therefore do not fall under the category ‘starting’. In order to propose the preliminary understanding of what a starting architectural firms is, the following definition has been adopted: ‘An architectural firm can be defined as starting when the firm has been founded since 4 years or less.’

1.2. Business models
The concept of a business model is rather new and within the last decade it has gained increasing attention both within academic as well as in business practices (Osterwalder, Pigneur, & Tucci, 2005; Teece, 2007). According to Zott, Amit, and Massa (2011, p. 4), the business model concept has “virtually exploded” since 1995. Before very little was known, but since 1995, the scientific publications about this topic increased and nowadays a wide range of both practical as scientific resources are available about the business model concept.

The definition of a business model is in scientific literature very divergent. Stampfl (2016) states that all companies have a business model, disregarding whether they have it explicitly defined or not. In that sense, a business model refers to the simplified and conceptual way on how a company does business (a more in depth definition has been elaborated in chapter 6).

1.3. Explorative interviews
In order to gain a better understanding of the current problems in the architectural practice, two explorative interviews have been conducted. The first interview was with a policy manager ‘Market and Entrepreneurship’ of the Royal Institute of Dutch Architects (BNA) and the second interview was with a founder of the 2-year-old architectural firm.

The Royal Institute of Dutch Architects
According to the interviewee of the BNA, the annual number of new registrations is not representative for the amount of starting architectural firms. This group of firms cannot financially afford the annual contribution of the BNA. The consequence is that the BNA does not have a clear image of this group of architects because all the new registrations at the BNA mainly consist of the already older firms that have gained a certain financial stability. This makes the starting architect invisible for the Institute to get insight into the magnitude, the problems and successes of this group.

When asking him about business models in starting architectural firms, he expects that the model of income of many starting architectural firms works in the same way as that of more established firms, namely that the majority of income is generated through agreeing on a fixed fee. The model of hourly paying is less common than the fee, but also widely used. However, he thinks that starting architectural firms are lacking a certain amount of experience and security. He emphasized the absence of numbers and figures about this group as a result of the inability to reach this group as described above.
Starting architectural firm

The interviewee is co-founder of the architectural firm. Currently he is not professionally involved anymore as he left the firm after 2 years employment. Nevertheless, he was willing to discuss about his experience during the start-up phase of the firm of which he has been contributed a lot.

From the interview it can be concluded that attempts have been made to make a concrete business model, but due to new projects coming in rapidly after each other, this has been neglected, as they preferred to work on the designs. The firm has a very strong vision and mission and worked on the projects they felt the most enthusiastic about. According to the interviewee, this was the reason why the firm succeeded. If they did not have the in-house capabilities or resources to fulfil certain tasks, they compensated their lack of knowledge with the advice and collaboration of experts and specialists that they had acquired in their private network of friends and family. With the financial side of their business, they encountered the most problems. According to the interviewee, the lack of financial knowledge caused the firm spending their budget on the wrong projects or not receiving any income at all after completing a project. This resulted in the incapability of covering their expenses and making profit. For a particular project it even became necessary to actively look for acquisition themselves in order to continue the project. Even though he experienced this as educational, he admitted it was not supposed to become one of their responsibilities.

2. Problem statement

When constructing an image of what a starting architectural firm is, basic information regarding the firm's turnover, profitability, way of acquiring projects, amount of employees and type of projects is needed. When exploring scientific and non-scientific literature about starting architectural firms, only reports were found about the characteristics of an ‘average’ architectural firm. In the benchmark reports of the BNA (BNA, 2016), a clear image is set up on what the characteristics are of architectural firms in the Netherlands. However, in these reports a distinction is made regarding their size, income, capital, the kind of projects they work on, etc. However, no distinction is made in the age of the firms. Therefore, it is difficult to explicitly define what a starting architectural firms is because the average size or income of the architectural firm is an average of both older firms as well as younger firms. However, looking at the difference in phases in which the firms are, it can be assumed that the variables may diver. A starting firm deals with different problems in comparison with firms which are working for many years. How do starting architectural firms do business? How do they compensate their lack of experience? And what can they improve?

In scientific literature, there is an abundance of studies about starting businesses. The entrepreneurship literature is extensive and very precise definitions have been proposed about start-ups. However, a start-up is a rather generic term. A part of the start-up literature has been specified per sector, however for architectural firms this is very limited (e.g. Baggelaar, 2013; Masurel & Montfort, 2006). The problem is not in the definition of the concept of a starting firm itself, but rather in what they truly are in the architectural sector. In other words, what are the characteristics of a ‘starting’ architectural firm? This can also be concluded from the explorative interview with a policy manager of the BNA. He confirmed the absence of numbers and figures about particularly the starting architectural firms, both in how this group looks like as in how they do business.

Despite whether a firm is in its starting phase or exists already for some time, an architectural firm is like any other company subjected to think about running and maintaining a business. It needs to generate income in order to pay its employees a decent salary and to provide a working space with relevant equipment. In order to achieve this, a clear management strategy or model needs
to fit with the firm's mission and vision. In other words, every company, and therefore also the architectural firm, needs a business model.

When architectural firms start their businesses, they often lack experience in starting up a business, have a small or absent portfolio and start with a small professional network. An assumption is that their creative ambitions let them focus on the execution of the projects rather than on business administration, business operation and/or business strategy. Despite their passion and attention to their architectural vision and mission, a business model in starting architectural firms is missing. The founders are often unaware of what their business model is and run their firm by intuition, help of their private network and on former experiences of other firms. It is assumed that the lack of a business model could result in missing opportunities, struggling with financial issues and bad management. This can be concluded from the explorative interview with a founder of a starting architectural firm. He confirmed the bigger focus on the designing and therefore lacking in the business side of the firm that resulted in poor financial choices.

Recently, more scientific research is being conducted about the different business models that architectural firms employ (Bos-de Vos, Lieftink, Volker, & Wamelink, 2014; Bos-de Vos, Lieftink, Wamelink, & Kraaijeveld, 2017; Bos-de Vos & Volker, 2017; Bos-de Vos, Volker, & Wamelink, 2016). However, the focus is more on the established films. So far, little is known about specifically the group of starting architectural firms.

In summary, the problem this research addresses is (1) the lack of knowledge about the characteristics of this group of starting architectural firms, and (2) the lack of insight in what the business models in starting architectural firms characterises.

![Figure 1: conceptual model](image-url)
3. Research question

From the introduction and problem statement, the following main research question is formulated:

What are the explicit and implicit characteristics of starting architectural firms in the Netherlands and what characterises their business models?

To answer the main research question, several sub-questions need to be answered first. Several sub-questions are answered based on a literature study and by empirical study. The sub-questions are explained in this section as well as the reason(s) for these questions to be asked.

Literature study

In order to build on theory about starting architectural firms, it is important to define ‘starting’ in a broader context. As stated before, a starting business is not the same as a business existing for a long time. A starting business is often called a ‘start-up’ and a start-up is often related to entrepreneurship. There is a lot of scientific literature written about entrepreneurship and start-ups so making the link between these two opens up many possibilities for further research to define the principle characteristics of a starting business.

A brief preliminary definition of what a starting architectural firm is has been stated in the first chapter. However, scientific literature lacks a more precise definition and therefore a link is made between the ‘start-up’ and ‘entrepreneurship’ as this field of literature is more extensive. Hence, the first question is:

1. What is a starting business?
   a. What is entrepreneurship?
   b. What is the definition of a start-up?
   c. How long is a firm considered a start-up?

The concept of a business model is very divergent. The second sub-question encompasses different views of the business models as there are different ranges of theories and definitions about the business model concept. Often the terms ‘business model’ and ‘business strategy’ are used interchangeably. To avoid misunderstanding among the terms business model and business strategy, these two concepts needs to be distinguished. Therefore, the second question is:

2. What is a business model?
   a. What is the definition of a business model?
   b. What is the difference between a business model and a business strategy?

Empirical study

With the third question, insight in explicit characteristics of the starting architectural firm in the Netherlands is aimed for. It directs towards the information about the average size of the firms, the type of projects they do, how they generate and organize their income, the average annual turnover, etc. Specific information about this group of architects is lacking and therefore the goal of this sub-question is to get general information about the firm to build on the theory of what a starting architectural firm characterizes. It answers the first part of the main research question.

3. What characterizes the starting architectural firm in the Netherlands?
a. What are the general characteristics of starting architectural firms? (e.g. size, number of founders, number of employees, educational background, kind of projects, average turnover, etc.)
b. Which characteristics of the starting architectural firms diver from the characteristics of the average architectural firms in the Netherlands?

With the business model definition of the literature study and the results of the empirical study, the last sub-question answers the second part of the main research question:

4. What characterizes the business models of starting architectural firms in the Netherlands?
   a. What is the current approach and attitude of Dutch starting architectural firms towards the business model and business side of the architectural practise?
   b. What aspects characterize the business model in starting architectural firms in the Netherlands?

Within the sub-questions, there is a division between the characteristics of the starting (architectural) firm and the characteristics of the business models. In table 1, this division is summarised.

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<thead>
<tr>
<th>Starting (architectural) firm</th>
<th>Business model</th>
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<tbody>
<tr>
<td>Literature</td>
<td>SQ 1</td>
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<td>Empirical</td>
<td>SQ 3</td>
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**Table 1: sub-questions ordered by subject**

In figure 2 is shown how the research design is related to the conceptual model of this research.

[Figure 2: relation between research design and the conceptual model]
4. Research positioning

The research is framed under the Architectural Design Management domain of the Design and Construction Management chair of the Management in the Built Environment Department at the Faculty of Architecture. The motivation to conduct this research is the limitation of profound scientific knowledge about starting architectural firms and their business models. Also, it addresses the lack of practical know-how in architectural firms regarding business model design.

The aim of this research is to introduce comprehensive literature about business models in starting architectural firms that adds to the Architectural Design Management literature and it provides an advice for starting architects and architectural institutions to develop business models that are future-proof, improves managerial thinking by architects and might increase business opportunities within the sector.

The scientific relevance concerns the contribution of knowledge about a group that has barely been studied individually, namely the starting architectural firms. So far, efforts to develop more insight into the business models of architectural firms have been primarily undertaken from the perspective of the already established firms (Bos-de Vos et al., 2014; Bos-de Vos et al., 2017). A detailed understanding of the business models of ‘starting’ architectural firms and the process the business model endures in the start-up phase is crucial for these firms that wish to develop sustainable and future-proof ways of doing business. The research contributes to the literature on Architectural Design Management by providing a detailed understanding of the characteristics of starting architectural businesses and the key components of the business model.

The practical use of this research directs to bringing awareness among starting architects about the importance of a business model and the insight of start-up process of founding a firm. It could help starting architects with the understanding of how to set up a business and gaining insight in their organisational processes and current market position. Also, this research is relevant to all faculties of architecture as it provides an advice on what kind of knowledge is missing in the educational curriculum to prepare architectural graduates to become a successful practising architect. This advice also relates to The Royal Institute of Dutch Architects, as starting architects are a part of the architectural community. Therefore, more insights in this group of architects is relevant for the BNA in order to provide and guide starting architects from the moment of graduation to the establishing of a healthy firm.
5. Research methods
This research explores several aspects of the ‘starting architectural’ firm in which little research is available and consequently paradigm on further research is lacking. Mainly business models in (older) architectural firms have been studied, for example by the FuturA research project, but it is still in its infancy.

Normal scientific theory is developed through incremental empirical examination and extension (Kuhn, 1970). This theory-building process depends on past literature and empirical observation. However, when little is known about a topic, empirical evidence is lacking or spontaneous findings in theory-testing require new perspectives (Eisenhardt, 1989). Therefore, Eisenhardt (1989) proposed a method for inducting theory using case studies. Her method, called Building Theory from Cases, is appropriate when there is no grounded theory and/or paradigm yet. It uses several different qualitative and quantitative methods in order to increase the information availability. In addition, Eisenhardt's research method comes from the field of management and is primarily concerned with organizational issues, which is also the subject of his research.

In summary, Eisenhardt's method is particularly appropriate when:

- The theory-building does not rely on previous literature or prior empirical evidence. Except for the literature about the established firms, no literature about starting architectural firms is available;
- It is in the early stages of research. The FuturA research project is one of the first big research projects about business models in architectural firms;
- A new perspective on an already examined topic needs to be provided.

The Building Theories from Case Studies method presents a clear roadmap for executing the type of research as described above. This framework is summarised in figure 3.

5.1. Research strategy
“The case study approach is a research strategy which focuses on the understanding the dynamics present within single settings” (Eisenhardt, 1989, p. 534). According to her, case studies typically combine different data collection methods such as interviews, questionnaires, statistics, observations, etc. The results may be qualitative, quantitative or both.

It has to be noticed that Eisenhardt uses the term ‘case studies’ which has to be interpreted as a collection of different specific techniques combined in order to describe a case or situation which adheres to the goal of theory building. Bryman (2015) defines the case study as a research design that entails studying two or more cases using the same methods and case study design is the preferred method for research questions which explore “how” or “why” of social phenomena. It is also useful when the investigator has little control over events. Yin (2003, p. 13) defines a case study as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between the phenomenon and the context are not clearly evident, and in which multiple sources of evidence are used”. Eisenhardt (1989, p. 534) defines case studies “as a research strategy that focuses on the dynamics present within a single setting”.

The research process of Eisenhardt’s method is (highly) iterative, meaning it continuously loops back and forward. Information gathered in later stages of the research is more elaborated than at the start of the research, due to the higher data availability and the forming of theory. The research process directs more towards product or building design processes. Van Doorn (2011) states that a design process consists of three parts: analysing, synthesis, and
evaluation. The description used in this research method, based on the method of Eisenhardt (1989), adheres to the three parts of the design process as described by Van Doorn (2011).

### Process of Building Theory from Case Study Research

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<tr>
<th>Step</th>
<th>Activity</th>
<th>Reason</th>
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<td>Focuses efforts</td>
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<td></td>
<td>Possibly a priori constructs</td>
<td>Provides better grounding of construct measures</td>
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<tr>
<td>Selecting Cases</td>
<td>Neither theory nor hypotheses</td>
<td>Retains theoretical flexibility</td>
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<td></td>
<td>Specified population</td>
<td>Constrains extraneous variation and sharpens external validity</td>
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<td></td>
<td>Theoretical, not random, sampling</td>
<td>Focuses efforts on theoretically useful cases—i.e., those that replicate or extend theory by filling conceptual categories</td>
</tr>
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<td>Crafting Instruments and Protocols</td>
<td>Multiple data collection methods</td>
<td>Strengthens grounding of theory by triangulation of evidence</td>
</tr>
<tr>
<td></td>
<td>Qualitative and quantitative data combined</td>
<td>Synergistic view of evidence</td>
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<tr>
<td></td>
<td>Multiple investigators</td>
<td>Fosters divergent perspectives and strengthens grounding</td>
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<tr>
<td>Entering the Field</td>
<td>Overlap data collection and analysis, including field notes</td>
<td>Speeds analyses and reveals helpful adjustments to data collection</td>
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<tr>
<td></td>
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<td>Allows investigators to take advantage of emergent themes and unique case features</td>
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<td>Within-case analysis</td>
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<td>Cross-case pattern search using divergent techniques</td>
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<td>Shaping Hypotheses</td>
<td>Iterative tabulation of evidence for each construct</td>
<td>Sharpens construct definition, validity, and measurability</td>
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<tr>
<td></td>
<td>Replication, not sampling, logic across cases</td>
<td>Confirms, extends, and sharpens theory</td>
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<td>Search evidence for &quot;why&quot; behind relationships</td>
<td>Builds internal validity</td>
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<tr>
<td>Enrolling Literature</td>
<td>Comparison with conflicting literature</td>
<td>Builds internal validity, raises theoretical level, and sharpens construct definitions</td>
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<tr>
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<td>Comparison with similar literature</td>
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<tr>
<td>Reaching Closure</td>
<td>Theoretical saturation when possible</td>
<td>Ends process when marginal improvement becomes small</td>
</tr>
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**Figure 3:** Building theory from case study research, an outline of the process (source: Eisenhardt, 1989)

5.2. **Building Theory from Case Study Research: step by step**

When studying figure 2, it becomes clear where this research fits in with the research method as described by Eisenhardt (1989). It translates the generic terms into research specific terms and in this way it forms the research process that is followed in this research, outlining questions and tasks to be followed during different phases. In table 2, the application of the research method by Eisenhardt (1989) on this research is summarized.
1. Getting started

a. Definition of research question
   - Definition of a starting architectural firm;
   - Find similarities with entrepreneurship and start-ups in order to make a connection with extensive literature;
   - Explore definitions of the business model;
   - Define a research question.

b. a priori construct
   - Explorative interview with a starting architect and someone from The Royal Institute of Dutch Architects.

c. Neither theory nor hypotheses
   - Formulate problem statement;
   - Specify potential important variables with reference to literature but avoid thinking of specific relationships between these variables;
   - Literature study: answer SQ 1 and SQ 2.

2. Selecting cases

a. Specified population
   - Setting up a list of firms which complies with definition stated in step 1a;
   - Due to limited time and resources, planning the number of cases beforehand is preferred.

b. Theoretical, not random, sampling
   - Select cases which are likely to replicate or extend the emergent theory. Aim for extreme or polar types.

3. Crafting instruments and protocols

a. Multiple data collection methods
   - Set up questionnaire for SQ 3;
   - Set up interview protocol for SQ 4.

b. Qualitative and quantitative data combined
   - Quantitative data is used for understanding the characteristics of the sampling group;
   - Qualitative data is used for theory building and answering the main research question;
   - The combination reveals relationships between the rationale and the theory.

c. Multiple investigators
   The collaboration with the FuturA research project group:
   - Enhances the creative potential of the study because it might give complementary insights which add richness to the data;
   - Enhances confidence in the findings which adds to the empirical grounding of the study.
   The collaboration appears mainly in the literature part of this research.

4. Entering the field

a. Overlap data collection and analysis including field notes
   - Execute the questionnaires (SQ 3) and interviews (SQ 4) and simultaneously perform the literature study in order to optimise a continuous overlap between research and literature study (SQ 1 and SQ 2).

b. Flexible and opportunistic data collection methods
   - Make adjustments during the data collection process (e.g. adding more cases, adding more questions to interview protocol). The aim is to give the research the flexibility and opportunity to alter the data collection in order to ground the theory better or to provide new theoretical insights and take advantage of new themes to improve the resultant theory.

5. Analysing data

a. Within-case analysis
   - Detailed case study description of each firm with
the aim to get a rich familiarity of each case, which accelerates cross-case comparison (5b).

| b. Cross-case pattern search using divergent techniques | - Set up dimensions/categories deduced from the research problem and literature study;  
- Compare these dimensions on within-group similarities and intergroup differences. |
|---|---|
| 6. Shaping hypotheses | a. Iterative tabulation of evidence for each construct | - Compare systematically the evidence collected with the theory (compare SQ 1 and 2 with SQ 3 and 4);  
- Reason backwards to see if theory and definitions as designed still hold. |
| | b. Replication, not sampling, logic across cases | - Adjust, extend and sharpen theory;  
- See if logic found in one case applies to other cases as well (requires deeper analysis than cross case pattern search). |
| | c. Search evidence for “why” behind relationships | - If a relation is found, try to explain this using data found in individual cases. |
| 7. Enfolding literature | a. Comparison with conflicting literature | - This enhances the validity and/or generalizability of the findings. Finding literature from the fields closest to the subject under investigation would be ideal. However, because the data available is scarce, the search for relevant literature should not be bound to the closest fields alone. This way of data collection is supported by the research method of Eisenhardt (1989);  
- Make comparison with literature from the field of businesses and management (entrepreneurship and start-ups);  
- Review SQ 1 and SQ 2. |
| | b. Comparison with similar literature | - See above;  
- Make comparison with FuturA research results and Professional Service Firm literature;  
- Review SQ 1 and SQ 2. |
| 8. Reaching Closure | a. Theoretical saturation when possible | - When incremental learning is minimal, meaning when the observed phenomena are recurring, theoretical saturation has been reached and the adding of cases should be stopped. Also the factors of time and resource availability should be considered;  
- Answer the main research question;  
- Draw conclusions and make recommendations for further research. |

Table 1: Application of the research method by Eisenhardt (1989) on this research
5.3. Data collection method
The data collection methods consist of:
- Explorative interviews;
- Literature review;
- Questionnaires;
- Case studies (workshops).

In order to make the connection between the research questions and the data collection methods, table 3 shows which questions are answered by which data collection method. In Figure 4 the research organization has been summarized. It depicts how the research organization corresponds with the data research methods in order to come to the research findings.

| SQ 1: What is a starting business? | Literature | Questionnaire | Case study |
| SQ 2: What is a business model? | X | X |
| SQ 3: Characteristics of a starting architectural firm | | | X |
| SQ 4: Characteristics of a business model in a starting architectural firm | | |

Table 2: A detailed overview of the data collection methods that are used for the different research questions

Figure 4: research organization
5.3.1. Explorative interviews
The explorative interviews support the problem statement. Despite that the interviews have already been conducted in the first part of this research report, they are part of the total data collection and therefore are discussed in this chapter as well. Besides the subject ‘starting architectural firms’ and ‘business models in starting architectural firms’, the interviews did not have a structured protocol of questions as the interview has the purpose of ‘exploring’ the problem. The aim was to let the interviewees tell their story in a more free way so their experiences with this topic would arise naturally.

5.3.2. Literature review
By means of a literature review, both the current state of knowledge as well as knowledge gaps in a certain field of study become clear. According to Kumar (2011) a literature study consists of four steps that need to be followed:

1. Searching for literature in the area related to the research;
2. Reviewing existing literature;
3. Developing the theoretical framework;
4. Developing the conceptual framework.

Because literature in the same area is scarce, the first two steps of the literature review are extended to similar areas (like entrepreneurship and start-ups). The development of the theoretical framework about business models forms the basis of the interviews (workshops) which is discussed later in this chapter.

5.3.3. Questionnaire
The questionnaire (a form of survey) is the first qualitative data collection method in the empirical part of this research. According to Kelley, Clark, Brown, and Sitzia (2003), a survey refers to the collection of a relatively small amount of data from a large sample of people from a pre-determined population. This is usually done by means of a questionnaire. Questionnaires are designed to provide a ‘snapshot’ of how things are at a specific time. They are appropriate for descriptive studies or to provide data for testing hypotheses. For this research a questionnaire serves to describe the population on which the research is aimed, namely the starting architectural firm. It forms the qualitative part of the research data collection. It answers the sub-question 3 about the characteristics (i.a. size, revenues, composition, etc.) of a starting architect. This method is appropriate because it targets a large group for a small amount of information. The questions of the questionnaire are short and easy to fill in an online form. In addition, this questionnaire also functions as a method to make a selection for the interviews.

The sample size of the number of interviewees needed to fill in the questionnaire depends on three factors: the resources available, the aim of the study and the statistical quality needed for the survey (Kelley et al., 2003). A good representation of the population is very important to obtain. Cook, Heath, and Thompson (2016) argued that in some cases, a high representativeness is more important than obtaining a high response rate. If the response rates low in a well represented sample of a population, the outcomes can be more valuable than in a poor represented sample of a population with a high response rate.

The survey is an online questionnaire, sent out by e-mail (appendix A). A response-rate of 40-50% is considered common for mail surveys (Cook et al., 2016). This means that at least 25-31 responses are needed to yield a reliable result. According to Cook et al. (2016), research results can be biased if the nonresponse is non-random and/or if it is correlated with the variables of the survey. As often the reason for the nonresponse is unknown, it is assumed that when the response rate is high, no serious bias in the nonresponse is expected.
Therefore, a high response rate is very desirable as it increases the quality of the survey.

5.3.4. Case studies (workshops)
At the end of the questionnaire, a question has been added if the respondent would like to participate in a follow-up interview (workshops). Out these respondents of the questionnaire who agreed with the possibility for a follow-up interview, a selection is made to form the second part of the empirical study of this research: the case studies.

The case study consists of a semi-structured interview with starting architectural firms. The reason for the semi-structured interview is the qualitative information requirements surrounding these interviews. The interviews act as a way to discover the characteristics of the business models in the architectural firms and their success factors. It is possible that the participants might have knowledge about topics which are not yet apparent by the researcher (due to the literature gap surrounding the topic) and might reveal new information. Due to the iterative nature of the research method, it is possible to adjust the interview protocol. According to Bryman (2015), the semi-structured interview is best suited for these information requirements. The reason for this is because the interview provides a more detailed data collection possibility, which is desired to study the characteristics of the business models.

Despite having an official set-up of an interview, this part of the empirical study is called ‘workshops’ as the interviewees (the founders of the starting firm) have a more active role besides just answering the questions asked by the interviewer. The interviewees constructed, together with the interviewer, a business model of their own firm. In this way, a mutual collaboration is obtained: the founders of the architectural firm gain better insight in their own business and the interviewer collects the data needed for this research. The aim of the case studies is to obtain information about two aspects:

1. The current attitude and approach of the starting architectural firms towards the business side of the architectural practise;
2. The characteristics of the business model of starting architectural firms.

The first aspect is important to gain insight to what extent the firms already do and know about a business model and what their current approach is towards the business side of an architectural firm. This is important as it gives an introductory context for the second aspect: the imaging of the business model of the firm. Both aspects together also adds to the understanding of the more implicit characteristics of a starting architectural firm.

5.3.4.1. The set-up of the case studies
To comply with the bilateral aim as mentioned before, the case studies are divided in two parts: a semi-structured interview and an interactive part in which a business model has been set up together with the founders of the firm.

The semi-structured interview consists of a set of introductory questions to gain information about the (personal) approach and attitude of the interviewees towards the business side of the architectural practise and to what extent they are familiar with the concept of a business model. The reason why a semi-structured interview is the most appropriate form of interviewing in this case, is because it is expected is that the firms have different levels of knowledge about architectural business (models), and therefore it gives the interviewer the possibility to go deeper or to divert on subjects mentioned by the interviewees. Also the more implicit characteristics of a starting architectural firm can hereby be detected.

The interactive part is a combination of the interviewer asking questions and the participants constructing a business model. From the literature study,
several types of business models have been analysed. For the set-up of the case studies, the business model canvas of Osterwalder et al. (2010) is used. The reason is the common usage among starting business which indicates that the model is easy to use and understandable for entrepreneurs who are new to the business. Besides the business model canvas, also the FuturA framework is used as this is more tuned towards the architectural business. The two models have many aspects in common and therefore complement each other.

Based on the business model canvas of Osterwalder et al. (2010) and the FuturA framework, a set of questions is set-up and categorised according to the four categories of the business model canvas (see appendix C). The questions have been asked per category so the distinction between the different building blocks becomes clear to the participants as well. The answers have been filled in on an A2 poster of the business model canvas (see appendix D). In the rounding off, a short reflection on the business model canvas forms the conclusion of the session.

The findings are processed and analysed on two different levels per case study:

1. The semi-structured interviews were summarized and deduced to a textual description containing the findings.
2. One business model canvas, described per block.

The conclusion is a summary of all case study findings which answers the fourth sub-question.

5.3.4.2. The selection of the firms
The selection of the firms directs to as much variety among the firms as possible. Five characteristics of the starting firms form the most important criteria for the selection of the case studies. Which criteria these are and the reasoning why these criteria are important to consider, are elaborated below.

1. **Age of the firm**;
   
   As age has been defined as one of the most important factors of a starting architectural firm, also in the selection for the case studies, it plays an important role. To select architectural firms that are founded in different years, it could give insight in whether the youngest or the oldest firm diver from each other regarding their business model.

2. **Amount of working experience**;
   
   As the age of the firm may be starting, the age and/or experience of the founders do not always comply with this. It is expected that with more experience the attitude towards a business model would be based on previous experience than with founder without experience. This could yield difference findings in their business model. To engage this difference and to test the assumption, a variety in working experience in the construction sector is aimed for.

3. **Revenues**;
   
   The revenues and/or profit are good reflections on how ‘well’ a firm performs on financial level. It is interesting to have a variety in this criterion in order to see if there might be a relation between business model and revenues.

4. **Amount of employees/size**;
   
   As size of the firm vary between the respondents, it is set as an important criterion for the interviews as well. The more people the firm employs, the more human force it has to work on projects, the more paperwork the firm has and the more responsibility is required for the management.

5. **Kind of projects**.
In order to provide generic characteristics of a starting architectural firm, it is important to have a high variety in kind of projects the firms work on in order to avoid selection bias.

5.4.3.3. Participants, duration and required materials
All the founders of the firm were invited to attend the session. As the business model is part of the foundation and the core of a business, it was desirable to have all the founders attending the session so the personal vision and opinion of all the partners are included and considered. As the founders founded the firm together, a common agreement is preferred about the business model.

The entire session took approximately 2 hours and has been recorded with a recording device. The location was determined in accordance with the participants. After the session, the recordings were transcribed and the collected data has been summarised per case.

5.4.3.4. Data analysis: coding and presenting the findings
Coding the collected data is one of the key aspects of qualitative research in general and grounded theory in particular. Open-coding is a coding technique from the grounded theory methodology. It is the first stage in the process of creating grounded theory and is done by an analysis decomposing of the text. The theory is developed by repeatedly coding, reviewing and refining the coding process (Blair, 2016). Blair (2016) defined three stages of this process:
1. Open coding;
2. Axial coding;
Open coding is the application of (emergent) codes that are derived from the text. These codes are not a priori codes but emerge based on the content. The second and third phases involve axial and selective coding. During axial coding the codes are being categorized in more precise sub-categories. Selective coding follows by organizing the sub categories around a central explanatory concept until an analytic outline allows the theory to emerge (Blair, 2016).
B. concepts
6. Theoretical framework

In this chapter, a literature review has been conducted about the two main concepts of this research: starting businesses and business models. Specific scientific literature about the starting architectural firm (as this is the main study group of this research) is lacking. Therefore, the literature has been studied of fields that come the closest to the study group. Based on the characteristics ‘starting’ and ‘architectural firms’, four groups of similar fields have been selected from which starting architectural firms are studied:

- Start-ups and entrepreneurship;
- Management literature;
- Professional Service Firms;
- Architecture design management.

Figure 5 depicts which field of literature are consulted for the theory-building of this research.

Figure 5: fields of literature consulted for the theory-building of this research

Figure 5 depicts which field of literature are consulted for the theoretical framework. Literature about business models in the fields of management, in professional service firms and architectural design management apply to answer the second sub-question. These four fields of literature have been selected by its resemblance with the study group. It has been considered that there are more resembling fields. However on account of the demarcation of this research, the above mentioned fields are included in the literature study.

Basically, the term entrepreneur indicates a person who founds a business. A start-up is a business in the starting and developing phase of its existence. The two terms are often related to each other, both in practice as well as in (scientific) literature. This is the reason why these terms are combined for this research. Why this field of literature is consulted might be evident, an architectural firm is also in its founding years and therefore it could be concluded that the starting architect is an entrepreneur and the starting architectural firm is a start-up.

The management theory is very extensive and a broad field of literature. Nevertheless, to gain insight in the general concept of the term 'business model' the management field of literature has been studied to clarify the business model concept. Von Nordenflycht (2010) categorized the architectural firm among the professional service firms (PSFs). These PSFs can be defined as a knowledge-intensive firm that is hired by a client for their expertise and skills to work on unique problems. Professional service organizations comprise a wide range of disciplines. The common denominator in the services they provide is the ongoing advice or the performing of customized work for the typically infrequent buyer of the service (Mundt, Smith, & Egan, 2014). The organization itself could take shape by an individual or single practitioner, a partnership or a corporation. Hence, the business models in PSFs are relevant to consider when studying the business models in architectural firms. In the literature of architectural design management, only few is written about the business models in architectural firms.
business models in architectural firms. In the literature of architectural design management, only few is written about the business models in architectural firms. Mainly the results of the studies on governance and business models in architectural firms are of significant importance in the theory-building of this study. Therefore, results of the FuturA research project and previous studies of other researchers has been reviewed.

6.1. Starting businesses

6.1.1. Entrepreneurship

The concept of entrepreneurship is very divers as many definitions and interpretations have been developed over the last decades. The roots of the concepts of entrepreneurship and entrepreneur originated from the French language, which has been first noted in the 16th century (Volkmann, Tokarski, & Grünhagen, 2010). In this chapter, just a limited explanation of the concepts is discussed, as the historic development of the concept is very extensive.

Schumpeter, an Austrian economist and political scientist, was one of the first scholars to theorize about entrepreneurship: “The entrepreneur and his function are not difficult to conceptualize: the defining characteristic is simply the doing of new things or the doing of things that are already being done in a new way (innovation)” (Schumpeter, 1947, p. 151). Schumpeter stresses the division between the invention and entrepreneurship: “Many inventors have become entrepreneurs and the relative frequency of this case is no doubt an interesting subject to investigate, but there is no necessary connection between the two functions. The inventor produces ideas, the entrepreneur "gets things done," which may but need not embody anything that is scientifically new” (Schumpeter, 1947, p. 152). Similarly, he suggests a distinction between management and entrepreneurship. He stresses not to confuse the entrepreneurial function with the entrepreneur. Schumpeter suggests that the entrepreneur also performs a number of non-entrepreneurial functions as he is also head of an office, is his own solicitor, personnel manager and his own technical expert. Therefore, the distinctive element of entrepreneurship should not be confused with the business activity as a whole (including both managerial and entrepreneurial functions) (Kalantaridis, 2004).

Christos Kalantaridis of the University College Northampton developed a contemporary approach in the study of the entrepreneur that draws upon the ideas of previous scholars. He puts the emphasis on the types of behaviour of an entrepreneur rather than on structure of the enterprise. Before, similar to the definition of Schumpeter, the entrepreneur has been defined as “the economic agent who puts together factors of production, as well as contracts with other entrepreneurs and other economic actors in a network of production and distribution” (Kalantaridis, 2004, p. 70). In Kalantaridis's new approach, he distinguishes two key elements in the conceptualization of entrepreneurship. The first is related to the coordinating function of entrepreneurs. In other words, this is the ability to access and combine factors in the provision of services or in the production of goods. This also includes contractual, personal and inter-organizational relationships. The importance of ‘relationships’ also directs to the role of personalised social networks, which consequently means the ability to compete as well as to cooperate with other economic agents. The second element concerns the ability to judge in the process of entrepreneurial decision-making. This means that, when factors of production and network of relationships are developed at present, they are made with the orientation towards the future. Entrepreneurs have to deal with uncertainty as access to information regarding markets. Consequently, judgement forms a defining element of entrepreneurship.

Gedik, Miman, and Kesici (2015) defined entrepreneurship as the process of starting a business by taking all risks in order to discover and exploit
profitable opportunities. In this way, an entrepreneur is someone who manages, organizes and takes the risks of a business and often creates or develops something that is new, innovative or that no one has thought about it before.

Concluding from Schumpeter, Kalantaridis and Gedik et al., an entrepreneur is an economic agent who starts a business with a new product or service by taking all risks in order to discover and exploit profitable opportunities. He or she competes and cooperates with other economic agents in the present moment with anticipation on the future. The function as entrepreneur often comply both managerial as well as entrepreneurial tasks.

6.1.2. Start-up
Entrepreneurship and start-ups are related to each other. According to the phase-related approach of Volkmann et al. (2010), the organizational emergence phase (pre-founding) and start-up phase (at present and immediately after founding) form the centre of the start-up perspective. In scientific literature, the age of an enterprise is the dominant measurement of defining a start-up (Hyytinen, Pajarinen, & Rouvinen, 2015; Tornikoski, 2005). In the American business magazine Forbes, Robehmed (2013) states that it is hard to put a finger on what a start-up actually is since revenues, profits, and employment numbers shift drastically between companies and industries. Nevertheless, she categorized start-ups with an age of three years or less and added factors such as “acquisition by a larger company, more than one office, revenues greater than $20 million, more than 80 employees, over five people on the board, and founders who have personally sold shares” are factors that distinguishes a start-up from a ‘normal’ company or firm. It seems that if a start-up becomes profitable, it is likely to move away from its status as ‘start-up’.

However, if adopting the definition of Robehmed, sectorial differences between start-ups are not considered. This can be explained by looking at the architectural firms. In this sector a firm of 80 employees could be considered as already far beyond start-up firm as it does not even come close to the average size of the architectural firms in the Netherlands. In a report of the Dutch Economic Institute of the Built Environment (EIB), the majority (59.5%) of architectural firms in the Netherlands consists of 1-2 employees. Just 4% of the firms consist of 21 employees or more. According to the BNA (2016), the average size of an architectural firm in 2015 is 4.2 fte and 4.6 persons per firm. In the same report, the average turnover in 2015 was € 340,800,-. This is a fraction of the $20 million as mentioned by Robehmed. Hence, it is important to place and adjust the definition of a start-up in the context of the sector.

In summary, time is not the only measurement of a start-up; revenues and profit should be also considered in defining a start-up. However, as these kinds of measurements are sectorial dependent, the definition should be more generic. Volkmann et al. (2010) combined a maximum age threshold with qualitative criteria relating to income and profit. According to them, a starting business:

- Is not older than three years;
- Has not yet gained a stage where it has reached a break-even point and
- Are not sustainable from internal cash flows (this means when the cash-flow is positive and break-even has been reached).

According to this approach, not yet being cash flow positive and still being in the early area as a sign of youth and lack of settled establishment of a firm. This definition is more appropriate to adopt as it is more generic and less dependent on sectorial differences. It has to be noted that these are explicit measurements of a starting business. However, also some implicit measurements have to be considered. Several founders of (starting) businesses mention that a start-up is a culture not delineated by metrics and it is a state of mind rather than something
defined by its age and size (Robehmed, 2013). This relates to the definition of an entrepreneur of Kalantaridis (2004) that entrepreneurship is not just the structure of the enterprise but also the character of the entrepreneur.

In conclusion, a starting business is in explicit terms a business in the start-up phase of its existence. It exists less than three years and has not reached its break-even point nor is sustainable from internal cash flows. When one of these measurements is not met, the business is no longer considered a start-up.

6.2. Business model theory

6.2.1. Background in the business model concept: a general description

Globalization, high competition, fast technological change, increased customer sophistication, new forms of employment, changing societal norms and values have been catalysing the transformation of organizational processes (Djelic & Ainamo, 1999; Volberda, 1996). The 21st century is characterized by its pace of change due to intra-industry competition, shorter product or design life-cycles and disruptions from new business models which offer novel and unique customer experiences (McGrath, 2011).

Volberda (1996, p. 360) states that “In the new mode of hypercompetition, [...] rents do not derive from specialized routines but from adaptive capability”. Teece (2007, p. 1330) shares this view and adds that “the capacity an enterprise has to create, adjust, hone, and, if necessary, replace business models is foundational to dynamic capabilities”. According to Stampfl (2016) the key to survival based on the ability to develop business models that meet the requirements of fast changing business environments. Hence, the survival and growth of a firm increasingly depends on organizational issues. This includes the design of new and viable business models fitting the environmental conditions.

Basically, “a business model describes the underlying business idea and perceived entrepreneurial opportunity, as well as the means and ways for realizing this idea” (Volkmann et al., 2010, p. 126). It takes the costs and the profit into account; it illustrates the available resources and shows how these transform outputs and profits. It communicates the fundamental object, the aims and strategies (Volkmann et al., 2010).

The definition of Volkmann et al. (2010) is just one of the many views on what a business model is. The increasing importance of the business model concepts bring along many new researches and scholarly debates. Stampfl (2016) has summarized a selection of definitions from scientific literature (fig. 6). He distinguishes five different roles attributed to business models by the academics as mentioned in figure 6.

1. **Business models as a real-life phenomenon**;
   Every firm has a business model, whether it is explicitly defined or not. In that sense, the business model simply refers to the way a company does business (Osterwalder et al., 2005).

2. **Business models as models**;
   The business model can be used as a simplification and conceptualization of the way a firm does business and therefore a simplification of the real-world phenomenon. The goal of such a model is to present key principles and to identify relationships.
<table>
<thead>
<tr>
<th>Author, Year</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timmers (1998)</td>
<td>The business model is “an architecture of the product, service and information flows, including a description of the various business actors and their roles; a description of the potential benefits for the various business actors; a description of the sources of revenues.”</td>
</tr>
<tr>
<td>Selz (1999)</td>
<td>“A business model is architecture for the firm’s product, service and information flows. This includes a description of the various economic agents and their roles. A business model also describes the potential benefits for the various agents and provides a description of the potential revenue flows”.</td>
</tr>
<tr>
<td>Stewart &amp; Zhao (2000)</td>
<td>A “business model is a statement of how a firm will make money and sustain its profit stream over time”.</td>
</tr>
<tr>
<td>Linder &amp; Cantrell (2000)</td>
<td>“The business model is the organization’s core logic for creating value”.</td>
</tr>
<tr>
<td>Hamel (2000)</td>
<td>“A business model is simply a business concept that has been put into practice. A business concept has four major components: Core Strategy, Strategic Resources, Customer Interface and Value Network.”</td>
</tr>
<tr>
<td>Amit &amp; Zott (2001)</td>
<td>A business model describes “the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities.”</td>
</tr>
<tr>
<td>Petrovic et al. (2001)</td>
<td>A “business model describes the logic of a business system for creating value that lies behind the actual processors”.</td>
</tr>
<tr>
<td>Weill &amp; Vitale (2001)</td>
<td>“A description of the roles and relationships among a firm’s consumers, customers, allies and suppliers that identifies major flows of product, information and money and the major benefits to participants”.</td>
</tr>
<tr>
<td>Chesbrough &amp; Rosenbloom (2002)</td>
<td>A business model is “the heurist logic that connects technical potential with the realization of economic value”.</td>
</tr>
<tr>
<td>Magretta (2002)</td>
<td>Business models are “stories that explain how enterprises work. A good business model answers Peter Drucker’s age old questions: Who is the customer? And what does the customer value? It also answers the fundamental question every manager must ask. How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?”.</td>
</tr>
<tr>
<td>Osterwalder et al. (2005)</td>
<td>A conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is a description of the value a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, to generate profitable and sustainable revenue streams”.</td>
</tr>
<tr>
<td>Morris et al. (2005)</td>
<td>A business model is a “concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets”.</td>
</tr>
<tr>
<td>Chesbrough (2006)</td>
<td>“The business model is a useful framework to link ideas and technologies to economic outcomes.”</td>
</tr>
<tr>
<td></td>
<td>“It also has value in understanding how companies of all sizes can convert technological potential (e.g. products, feasibility, and performance) into economic value (price and profits).”</td>
</tr>
<tr>
<td></td>
<td>“Every company has a business model, whether that model is articulated or not”.</td>
</tr>
<tr>
<td>Johnson et al. (2008)</td>
<td>Business models “consist of four interlocking elements, that, taken together, create and deliver value”: customer value proposition, profit formula, key resources, and key processes.</td>
</tr>
<tr>
<td>Starzyński &amp; Gibson (2008)</td>
<td>“The business model is a conceptual framework for identifying how a company creates, delivers, and extracts value. It typically includes a whole set of integrated components, all of which can be looked on as opportunities for innovation and competitive advantage”.</td>
</tr>
<tr>
<td>Casadesus-Masanell &amp; Ricart (2010)</td>
<td>“A business model is […] a reflection of the firm’s realized strategy.”</td>
</tr>
<tr>
<td>Teece (2010)</td>
<td>“A business model articulates the logic, the data and other evidence that support a value proposition for the customer, and a viable structure of revenues and costs for the enterprise delivering that value.”</td>
</tr>
<tr>
<td>Zott &amp; Amit (2010)</td>
<td>A business model is “a system of interdependent activities that transcends the focal firm and spans its boundaries”.</td>
</tr>
</tbody>
</table>

Figure 6: business model definition overview (Stampfl, 2016)
3. **Business models as a tool to structure organizations;**
   Business models can be identified as a tool to build up various components within an organization. In a way, the business model serves “as a blueprint for the coherence between core business model components” (Demil & Lecocq, 2010, p. 227).

4. **Business models as a mediator between technology and markets;**
   Technologies change fast and therefore it is hard to rely on these technologies in order to generate satisfactory profits. Firms need to develop new business models to capture the economic potential of such new technologies and make choices of organizing the firm around the technology (Perkmann & Spicer, 2010).

5. **Business models as a strategic variable.**
   The choice of a business model according to the literature is a key element in determining a corporate strategy. This makes it a strategic variable in the competitive aspect of a firm or organization (Christensen, 2001). The difference between strategy and a business model will be discussed in more detail later in this chapter.

As there is a general idea of what a business model is or can be, it is also important to state what a business model is not. Stampfl (2016, p. 29) summarizes that a business model is not a:

- “Instrument for business planning;
- Instrument for external market attractiveness analysis;
- Instrument for in-depth internal core resources, competencies and dynamic capabilities assessment;
- Instrument for comprehensive and holistic strategy formulation;
- Instrument for strategy monitoring and performance measurement;
- Substitute for strategy.”

When looking closer how a business model actually looks like, it can be noticed that there is not just one format or form of a business model. Sundelin (2010) summarized the most commonly known business models in a chronological order. These have been graphically depicted in charts or other forms. To understand which components are part of the business model, several reoccurring elements have been analysed and highlighted. This resulted in recurring elements that can be clustered into four components:

- Value proposition;
- Customers:
- Infrastructure and process;
- Revenue and cost structure.

Various business models are different from each other and do not always include all of the above-mentioned components. The configuration of the business models sometimes depends on the kind of industry the business model is composed for, because the authors of these business models sometimes specify for which industry the business model has been developed (e.g. e-broking, e-businesses, airlines, ICT). Nevertheless, some generic business models have been constructed and in these business models, mostly all of the four components are included.

In summary, an increasing importance of the business model concept brings along many new researches and scholarly debates. Yet, there is no universal definition about the concept ‘business model’. Business models occur in every firm, despite whether they are explicitly and consciously set up or are more implicit and not consciously defined. It is not an instrument but rather a tool to structure an organization. It is a simplified way on how a firm does business. Despite one universal definition, almost all business models find a common
ground in four elements: (1) value proposition, (2) customers, (3) infrastructure and processes and (4) revenue and cost structure.

6.2.2. Business model vs. a business strategy
In the definition of the business model, a common misunderstanding between a ‘business model’ and a ‘business strategy’ has to be made clear. These are two different concepts and are easily confused with each other. Henry Mintzberg is one of the most well known researchers about management and organization theory. According to him strategy making refers to how the collective system (the organization) establishes its basic orientation. Basically, it deals with the positioning of an organization in the market niches. The term ‘planning’ is often associated with strategy making. A strategy is defined as a plan or an explicit guide to future behaviour. In essence it is an explanation about past actions as to describe intended behaviours in the future (Mintzberg, 1989).

The difference between a business model and a strategy is that the business model addresses the fundamental structure of the business while the business strategy specifies how it would interact with competitors and win clients. The strategy adds competitive advantage into the business (Stampfl, 2016). The business model forms a blueprint for a strategy to be implemented through organizational structures, processes, and systems (Osterwalder et al., 2010). Figure 7 depicts the relationship between the business model and the strategy. A firm could have different business models for different projects/products, the strategy is the choice which to adopt (Stampfl, 2016). This research does not go deeper into the literature of business strategies because the focus is on the business models of architectural firms.

![Figure 7: Relationship between Strategy and Business Model (Stampfl, 2016)](image)

6.2.3. Business models in start-ups
For starting businesses, the business model framework has to be reasonably simple, logical, comprehensive, measurable and operationally meaningful, because the business is in its start-up phase, which means that the business is not yet defined and secure of a stable income. Therefore, it has to alternate its direction when the business turns out not to work the way it was intended (Morris, Schindehutte, & Allen, 2005). This is confirmed in the study of Johnson,
Christensen, and Kagermann (2008). This study concludes that start-ups usually revise their business model up to four times or more before they make profit.

Osterwalder (2004) reviewed in his dissertation the ontology of the business model and added new theoretical perspectives. Following this study, he developed the ‘Business Model Canvas’ (Osterwalder et al., 2010; Osterwalder et al., 2005) which is currently well-known among entrepreneurs and start-ups. It consists of four main areas: product, customer, infrastructure and finance which is structured in nine building blocks: (1) customer segments, (2) value proposition, (3) channels, (4) customer relationships, (5) revenue streams, (6) key resources, (7) key activities, (8) key partnerships, and (9) cost structure. Figure 8a displays the business model canvas.

Figure 8a: Business Model Canvas (Osterwalder, Pigneur, & Clark, 2010)

Figure 8b: The four business model elements in the business model canvas
Trimi and Berbegal-Mirabent (2012) point out that the use of the business model canvas is essential for the learning cycle of a start-up because it helps entrepreneurs (1) to understand how the business articulates its different components, (2) to undertake an exercise of constant reflection in their value proposition, creation and capturing, (3) to force entrepreneurs to simultaneously consider each of the elements of the business individually but also as a whole and (4) to stimulate business creativity and innovation.

According to Stampfl (2016), the Business Model Canvas allows entrepreneurs to work visually, which can spur creativity, facilitate team work and foster participation. Also in the business model canvas the four generic elements of a business model are represented: (1) value proposition, (2) customers, (3) infrastructure and processes and (4) revenue and cost structure (see figure 8b).

In order to gain a better understanding of the business model canvas, the nine building blocks are described based on the book of Osterwalder et al. (2010):

1. **Customer segments;**
   As the customer/client is the most important aspect for a business to survive, it is important to specify the different groups of people or organizations an enterprise aims to reach and serve.

2. **Value propositions;**
   The value proposition is a description of the benefits that an enterprise offers to their customers/clients. It describes an aggregation of products and services that create value for a specific customer segment.

3. **Channels;**
   How an enterprise communicates with and reaches its costumers (customers segments) to deliver their products or services (value proposition) is important to raise awareness among customers about a enterprise’s products and services, to helping customers evaluate a company’s value proposition, to customers to purchase specific products and services, to deliver a product or service to the customer ant to provide post-purchase customer support.

4. **Customer relationships;**
   The relationship with the customer influences the overall customer experience. Therefore, an enterprise should specify what types of relationships they want to establish with specific customer segments. The motivation to establish customer relationships can be driven by customer acquisition, customer retention and/or boosting sales.

5. **Revenue streams;**
   The revenue stream is the cash an enterprise generates from each customer segment. It is important to define for what value the customer is truly willing to pay for and what pricing mechanism is appropriate for this.

6. **Key resources;**
   Resources are the physical, financial, intellectual and/or human ‘tools’ that allow an enterprise to create and offer their products or service (value proposition), to reach the market, maintain customer relationships and to earn revenues.

7. **Key activities;**
   Key activities form the most important actions an enterprise must take to operate successfully. They are for example designing, making, problem solving, networking, platform maintenance, etc.

8. **Key partnerships;**
   This is the network of suppliers and partners that are needed to make the business model work. These are for example other experts or suppliers that perform activities which is not possible to deliver in-house, but are needed to deliver the final product or service. This should comply with the key activities building block.

9. **Cost structure.**
This includes the most important costs incurred while operating under a particular business model. Clearly, costs should always be minimized as much as possible, but some business model aim for a more cost-driven structure and others for a more value-driven structure.

Hong and Fauvel (2013) presented several criticisms on the business model canvas, which so far do not exist in form of academic paper. The positive features are the simplicity of the model, the practice-orientation instead of academic palaver and the plug-and-play principle (the possibility to start from scratch). It helps bringing people on the same page and to direct them to discuss about the same ideas. This is especially useful in early ideas that have not been thought through thoroughly. The objections that are discussed by Hong and Fauvel (2013) concerned: the lack of defining the business goals, lacking of strategic objectives, excluding competition factors and the business model canvas is limited to innovation (new ideas) rather than transforming existing business models.

In summary, the business model for start-ups has to be simple, logical, comprehensive and measurable. It has to alternate its direction as start-ups usually revise their business model multiple times before they make profit. The business model canvas of Osterwalder et al. (2010) has been praised by its simplicity and practicality for this type of businesses. It is a graphical model containing nine building blocks that are organized the four generic elements of a business model: value proposition, customers, infrastructure and processes, revenue and cost structure. The business model canvas is important for the learning cycle of a start-up, it can spur creativity, facilitate team knowledge work and foster participation.

6.2.4. Business models in professional service firms
Professional Service Firms (PSFs) are firms whose primary product is the delivery of expert services (Teece, 2003). They are led by experts: people who somehow got recognized by society as leaders in their field through their superior education, experience or performance. The professional service has unique aspects, which distinguishes them from other types of firms. They are characterized by looking simultaneously at demand and supply. The experts can supply valuable non-homogenous skills but the demand for those services has to take into account the way the expert offers the supply. In addition, the expert has deep (and often more) knowledge about how to define the problem than the client has and therefore in a privileged position tell the client what they may need. Accordingly, the expert works in an environment in which he quasi provides both the demand and the supply (Teece, 2003).

The goals of PSFs are both commercial and professional in nature. The common factor in PSFs is that they all try to satisfy three goals: service, satisfaction and success (Maister, 1993). The way they propose, create and capture value is different from the traditional interaction of perceived customer value and fee (Bowman & Ambrosini, 2000) because besides monetary value, it also involves the professional value (Bos-de Vos, Wamelink, & Volker, 2016). Professional value is a value dimension with reputation, development and work pleasure as value goals.

Maister (1993) discusses that there are two aspects of the PSF which makes the management of this kind of firms challenging. First, PSFs have a high degree of customizations in their work. Secondly, most of the PSF have a strong face-to-face interaction component with the client. This means that clear communication and quality of service must be managed carefully. Because their work is often complex and customized, PSFs have to deal with a high level of heterogeneity and uncertainty. This results that work is often on a project basis (Jones, Hesterly, Fladmoe-Lindquist, & Borgatti, 1998) and involve other stakeholders to deal with the heterogeneity and uncertainty (Boyd & Danks, 2000). According Kujala, Artto, Aaltonen, and Turkulainen (2010), the business
model analysis in project-based firms should take place at project-level rather than at firm level. This means that they can have multiple business models. As a surgeon needs the anaesthesiologist, also the expert is sometimes unable or unwilling to perform certain aspects in the provision of expert services. In order to achieve the desired outcomes as efficiently and effectively as possible, the expert needs to organize an infrastructure for complementary and supporting expertise (Teece, 2003). As experts tend to have strong preferences, are self-confident, sometimes egotistical and are often lacking a good sense of business, they are usually not adept at designing, organizing and manage such activities (Barnard, 1948). Generally, experts have not been successful or creative in designing new organizational forms (Teece, 2003).

In summary, a professional service firm is unique because it proposes services in a specific expertise and work on customized project-basis. As PSF are project-based firms, the business models should therefore also be at project-level rather than at firm level. This means that a PSF often has multiple business models. The expert is the biggest asset of the firm and therefore the human capital is the most important to invest in. The goals of a PSF are success (often defined in monetary value such as profit and revenues), satisfaction (often defines as professional value such as reputation and work pleasure) and service experience (often defined as the quality of the service). Also a strong network of other experts is important as not all the services that are offered by the PSF, are always executed by themselves.

6.2.5. Business models in architectural firms
Architectural firms could be categorised under the professional service firms and more specifically, under the ‘creative’ professional service firm (CPSF). In the study of Bos-de Vos et al. (2017), an understanding of the key components, their interrelations and accompanying challenges of the business model in CPSF have been suggested. They specifically focused on the business models of Dutch architectural firms.

The value proposition is defined as what the firm offers the customer and consists of the process services and product services. Value creation is how the firm creates value for the customer based on the services that are proposed. The resources are important means for value creation as they influence the amount of value that the firm is actually able to capture and are key determinants of firm performance. Value capture refer to the monetary value (i.e. firm revenues and profits) and professional value (this includes all the non-monetary elements that are important for the firm’s existence and survival such as reputation, development, work pleasure) (Bos-de Vos et al., 2016).

Figure 9: theoretical framework of business models in CPSFs according to Bos-de Vos et al., 2017
In general, CPSF’s main drive is not profit. Besides the monetary value, these type of firms aim for customer, user and/or social value, professional value (e.g. reputation and work pleasure) and organizational continuity (Bos-de Vos et al., 2017). Figure 9 represents the key components of the business model for CPSFs.

The study of Bos-de Vos et al. (2017) revealed three main challenges in the business models of CPSFs. First, the value proposition of firms and the value capture does not always correspond with each other. Often firms agree with offers that do not align with their own organisational goals, take in additional activities and/or spent more hours in making sure that their desired level of quality is met. The reason is often that architectural firms are passionately driven by their professional urge to deliver the best work possible. Second, in the process of value capturing, architectural firms are often hindered by resource dependency. As architectural firms often need partners to create value, due to difficult collaboration or differing goals a hindrance in the value creation may occur. Third, it is difficult to determine the value proposition into money at the beginning of a project, as often exact opportunities of the project are not clear in that stage. This results in the difficulty of agreeing on a price without having a clear image of the value that might be created in the end.

Bos-de Vos et al. (2017) translated the previously mentioned business model challenges of CPSFs into a framework for strategic decision-making. This framework (currently in draft version) should help with identifying key components and interdependencies of a project-level business model (fig. 10). The model is divided in three parts: the first two map the wishes of the firm and the third part aims to translate these wishes into a pragmatic approach for value creation and value capture.

Figure 10: Strategic decision making framework for successful value creation in creative projects (Bos-de Vos et al., 2017)
C.
7. Results

The results of the study encompass the descriptive information of the questionnaires and the selected case studies. The results of the questionnaire have been analysed and processed into a quantitative study about the characteristics of starting architectural firms. The case studies are applied on a selection of starting architectural firms from the questionnaire, based on various characteristics, which will be clarified later in this chapter. The business model of the selected firms have been analysed and processed into a detailed descriptive and explorative qualitative study.

7.1. Starting architectural firms

For the questionnaire, the Dutch Chamber of Commerce has been approached to determine the population size of starting architectural firms in the Netherlands. In the period of January 2014 until June 2017, 115 starting architectural firms have been registered (KvK, 2017). However, just 51 email addresses have been found in this requested database of the Chamber of Commerce. The assumption for this limited amount of email addresses is that the remaining 54 starting architectural firms have been registered but are not professionally active or have a public email address. However, another 11 starting architectural firms have been found through personal network which has not been found in the Chamber of Commerce. The characteristic of age of these firms correspond with the firms found in the database of the Chamber of Commerce but are not registered. This shows that the true population size of starting architectural firms is somehow difficult to determine, as there is no clear source in which a complete overview can be found. A reason might be that not all starting architectural firms are registered in the Chamber of Commerce or that they are registered under a different category. Nonetheless, based on the database of the Chamber of Commerce, 51/115; 44% of the total number of architectural firms can be achieved by email. Including the firms obtained from a personal network, a total of 62 firms form the sample size for the survey. The aim of this survey is to provide a descriptive study about starting architectural firms and as the total population is hard to determine, the sample size of 62 is considered representative enough with the resources available for a descriptive study for a graduation report.

By means of an internet-based questionnaire, sent out by email to 62 preselected starting architectural firms, a response rate of 40% (respectively 25/62 responses) has been achieved. According to Cook et al. (2016), a 40% response rate is common with internet-based surveys. The firms have been approached by two emails. The first email, with the attached online form (the questionnaire), has been sent mid of July 2017. A reminder has been sent two weeks after to the starting architectural firms that had not responded yet. In the beginning of September 2017, the questionnaire has been closed with a result of 25 completed responses. An entire overview of the results can be found in appendix B. These results are processed in a descriptive quantitative study and depict the characteristics of three aspects: the respondent/the founder (1), the firm (2) and the projects of the firm (3).

Annually, the BNA publishes a benchmark report about the economic performance of architectural firms and the current trends regarding their composition, projects, financial models, etc. This is measured by an annual questionnaire, which is send to all members. As these numbers reflect the entire architectural sector in the Netherlands, it is interesting to compare the BNA results and the results of the questionnaire of the starting architectural firms in this study to see if there are differences between the two. The aim for this comparison is to highlight the ‘starting’ character of the firms that have responded on the questionnaire.
7.1.1. The respondents
The questionnaire started with personal questions to get an image of the background of the founders of the starting architectural firm.

- **Age:** The average age of the respondents is 36 years, a median of 33.5 years with a minimum of 24 years and a maximum of 70 years.

- **Educational background:** The majority (14/25; 56% of N=25) completed a master degree at university level. Only 1/25 (4%) did not complete nor a bachelor not a master degree at the university or the higher vocational education level (in Dutch this is called HBO-niveau).

- **Work experience:** Among the respondents, 6/25 (24%) has more than 15 years experience. 9/25 (36%) of the respondents have 1-4 years of experiences (see fig. 11).

![Working experience (in years)](image)

**Figure 11: Working experience (in years)**

7.1.2. The architectural firm
The second part of the questionnaire investigated more specific information about the firm characteristics. They are compared with the benchmark report of the BNA (2016) with the aim of seeing differences between starting architectural firms and the average architectural firm in the Netherlands. Is has to be noted that not all variables that are measured in the questionnaire of this research, comply with the benchmark report of the BNA (2016) and therefore not all variables can be compared.

- **Age:** The mean of the age of the architectural firms is 2,1 years (see figure 12) with a SD of 1,0.

![Age of the firm over](image)

**Figure 12: Age of the firm over**

- **Amount of founders:** In figure 13, the distribution of the number of
founders in the sample group has been depicted. The majority of the firms has been founded by one person (13/25; 52% of N=25). The maximum is four in this sample group (4/25; 16% of N=25).

![Figure 13: Amount of founders](image)

- **Size:** The size of the firm is set by the total amount of employees (including the founders). The majority of the firms have more than one employee (13/25; 52% of N=25) (see figure 14). The average amount of founders is 1.8, the average amount of employees is 2.4 and the average amount of fulltime employees is 1.5 (1.5 FTE). According to the benchmark report of the BNA (2016), the largest group of respondents have firms with 1-2 FTE (31.7%). The average size of an architectural firm is 4.6 (respectively 4.2 FTE). Among the respondents of the study questionnaire, the starting architectural firms have a larger percentage of the 1 and 2-person businesses. As the starting architectural firms have an average of 2.4 employees, this is almost half of the average size of 4.6 as reported by the BNA.

![Figure 14: Amount of employees (including the founders)](image)

- **Legal form:** As the size classifications already predicted, the largest group is a one-man business (12/25; 48% of N=25). The two other
dominant legal forms are the general partnerships (v.o.f.) (6/25; 24% of N=25) and the limited liability partnership (maatschap) (6/25; 24% of N=25).

- **Turnover**: The total average turnover (from the beginning) of starting architectural firms is €114,594,- and the turnover over 2016 is €86,050,- (since 2014 with an average size of 1,5 FTE and 2,4 employees). It has to be noted that only 68% (N=17) of the responses are included in the average turnover. The other 32% notified not to disclose this kind of information. According to the 2016 BNA Benchmark report, the average turnover is €340,800,- (since 2006 and with an average size of 4,2 FTE and 4,6 employees). When looking at the total turnover per size classification, the smaller firms (1-2 FTE) have a total turnover of approximately €100,000,-, the firms with 2-5 FTE approximately €200,000,- and for firms with 5-10 FTE this is approximately €600,000,.-

In figure 15 the total average turnover and the average turnover of the year 2016 has been displayed by different size classifications. It seems that the starting architectural firms perform slightly better financially, compared to the same sized architectural firms of the BNA. An explanation might be that size and turnover are not related to each other for starting architectural firms, but that it might be related to size development, kind of projects and market opportunities.

![Figure 15: Average total turnover and average turnover over 2016 per size classification](image)

Two questions have been asked regarding the profitability of the firm. Important to note is that the information of this survey just contained the question whether the firm is profitable or not. There is no insight in the actual margin of profitability of starting architectural firms. The majority is able to cover all the general costs. Just one firm notified not to be able to cover these costs. This means that 96% of N=25 (24/25) of all starting architectural firms have reached their break-even point within the first four years. Likewise, the majority of firms mentioned to be profitable. Only 12% of N=25 (3/25) is not profitable and 4% of N25 (1/25) is notified as unknown. In the 2016 BNA Benchmark report only 50% of the firms with 1-2 FTE, 48% of the firms with 2-5 FTE and 82% of the firms with 5-10 FTE are profitable.

In the last part, more specific questions have been asked about the projects starting architectural firms work on and their method of acquisition. It refers to the results in appendix B.

- The average number of projects starting architectural firms work on is 7.
  - As the firm ages, the number of projects increases.
- The way starting architectural firms receive their income is mainly by the fixed fee model and by an hourly rate. This corresponds with the findings
of the BNA Benchmark report (BNA, 2016). Remarkably, the starting architectural firms work slightly more on hourly rate compared to the average (smaller) firms with 1-10 FTE.

- The majority of the projects are acquired by direct assignment. Starting architectural firms rarely acquire work on international level. Although the average firm, according to the BNA (2016), often acquires projects by direct assignment as well, this is not the majority. In the average firm, most projects are acquired by non-competitive offer. The largest difference between the starting and the average architectural firm is the percentage of the competition way of acquiring. Starting architectural firms attend relatively more often architectural competitions than the average architectural firm.

- The professional network is the most important source of acquiring project for starting architectural firm (see figure 16). Also the personal network is being consulted as well.

- The private client is the most common among starting architectural firms. Also private companies and the government are frequent. A similar distribution is observed in the BNA Benchmark report. Also for the average architectural firm, the private client forms the biggest source of work followed by private companies and the government (BNA, 2016).

- Residential, interior and offices are the most common type of projects starting architects work on. In the BNA Benchmark report, interior has not been differentiated as separate type of projects (BNA, 2016). Residential projects and interior are often related, but in the questionnaire a distinction is made in order to show the difference.

![Figure 16: Source of way of acquiring new projects](image-url)
7.2. Business models in starting architectural firms

The sample size depended on the feedback of the questionnaires. The aim was to set-up the ‘workshops’ with at least six architectural firms. This number yields enough information to get a general picture of what the business models in starting architectural firms characterizes. The goal was to not go too much in-depth, but rather get a more general image of a more varied selection of architectural firms. Looking at the timespan of two months to set-up and complete the case studies, a number of six was expected to be feasible and yields in a reliable representation of the population of starting architectural firms.

The collected data of the workshops have firstly been coded according the open coding technique. This resulted in around 50 corresponding codes among all the cases. Axial coding was used to categorize these 50 corresponding codes according to the aspects of the business model:
1. Value proposition;
2. Customers;
3. Infrastructure and process;
4. Revenue and cost structure;
5. General (in case one of the above mentioned business model aspects did not fit with one of codes).

The codes resulting from the open coding were evenly distributed over the categories after the axial coding. After the axial coding, the results have been ordered and presented according to the business model structure with a short introduction of the firm at the beginning and a reflection of the workshop at the end.

7.2.1. Case A

Case A is a starting architectural firm, founded by four young adults. All four are near finishing their master degree at a Dutch university at the time of the interview. They all work part-time for the firm and do not have a fixed office. The founders have work experience in internships before and during the period of establishing their own firm.

They started their firm with visualization of which was resulted that they want to continue with architectural projects. They made a schedule of their 1, 2 and 5 years perspective. At the moment they are in a transition phase between doing projects that simply generate money to projects they want to do and fits their vision and mission. For the firm the business side of the architectural practise was mainly focused on strategic choices like how to bring their service or product in the market, how the acquisition of their services was organised, the general organisation and legal issues regarding their proposals. The founders of the firm notified not to be trained in these aspects and tasks, but by doing research by themselves and consulting their personal network, they manage to fulfil these tasks anyway.

Business model

| Value proposition | They have formulated three main value propositions: visualization service, innovative housing solution and an online platform for an innovative housing solution. Their value proposition is formed partly from the conclusion of the market analysis they conducted and partly from their personal opinion and ambitions towards architecture: ‘We are looking what is currently going on and then we try to bring a product on the market which could tackle that’. During the interview, they brainstormed together about their value proposition, which indicates that their value proposition has to be crystallized yet. |
Client From the market analysis several client segments have been found of which the founders think that a certain demand will develop over the coming years. Their current clients are acquired through personal network. They lack a professional network. Nevertheless, they are working on building and increasing a professional network. Cold-calling is one way to accomplish this: “I would just call them to ask if we can visit them to show our good ideas.”

Infrastructure and process The activities they employ are designing, doing research, acquisition, setting up proposals, marketing and public relations (PR). The workspace, computers and software are mainly owned by the university. As the founders are all students, they use the facilities of the university to work on the projects. What they lack is legal advice on how to set up a proposal with good terms and conditions. Difficulties they currently experience are the indication of how many hours are needed for a certain project and the fitting price for it, how to negotiate about these: ‘Actually, we have very little knowledge about regulations and permits’. ‘The legal part is still difficult. Financially, we can manage, but legally’. For the future, they have the ambition to standardize certain internal processes.

Costs and income Their income is still mainly generated through the visualizations assignments, which generate enough income to cover their costs and to make a profit that is saved for later stages of their firm. The design projects do not generate enough income yet but they expect to move towards a profitable firm based on these future projects. Until then, they rely on their visualisation assignments. The costs of resources are currently limited as they use the facilities of the university. Therefore, the income they generate provides them with a part-time salary and the remaining income is being saved to cover future costs when they are graduated and cannot use the free resources of the university any more. They look for a balance between the profitability of the firm and professional reputation and value creation. The firm has a value-driven structure as they are less concerned with the cost implications of their business model design, and instead focus on value creation.

When reflection on the workshop, the insight in the different client segments and the channels how to reach them, was revealing for the founders. They concluded together that their acquisition needs more attention and a better focus on how to do this. In addition, they need to be more selective in the projects they accept. They want to focus more on the projects that are in line with their value proposition.
7.2.2. Case B
Case B is a starting architectural firm, founded by two young adults during their bachelor’s degree at a Dutch university. They both just finished their master degree at the time of the interview. They work full-time for the firm, they do not have a fixed office and have had previous work experience in the form in internships.

This firm is in the phase of defining their vision and mission. Their graduation projects of the university were key players in the shaping of their mission. Because their definition is not yet clear for the founders as well, they work in the meantime on smaller projects they call money-generating projects. By design competitions they hope to express in which direction they want to go with their firm. Over time, when gaining more experience and by trial and error, they try to make internal processes more efficient. By doing projects they enlarge their professional network, which is for them the most important way to acquire new work.

Business model

| Value proposition | During the interview, they brainstormed what their value proposition was. They had difficulties with formulating what exactly they want to offer to the client. They defined a distinctive architectural style and some examples of buildings they would like to work on. To make it more explicit or specific was difficult for them to formulate. They have ambitions to make extraordinary architecture, but they also realise they are not able to start with these kinds of project: ‘We have to be realistic that we cannot do these kind of projects straight away. But what we can try is to incorporate this in everything we do’. They are not very selective in accepting work at the moment: ‘We are doing everything, for now’. This indicates that their ambitions and the things they actually do, does not correspond (yet). By participating in design competitions they hope to show their ambition and (not yet clear) value proposition. The majority of the projects they do, are simply to generate income and do not correspond with the kind of projects they actually would like to do. |
| Client | Because they do not have a clear image of what exactly they offer, they had a hard time defining who their potential clients are. They came to the conclusion that it is everybody who wants something extraordinary, but who exactly that did not matter. The way how they reach their clients is currently through their professional network which they have established over the years. They have the desire to do more cold acquisition and they see their website as a marketing tool to communicate to their potential clients. Their value proposition is by displaying mainly the design competition work. |
| Infrastructure and process | Currently the founders execute all the activities themselves as outsourcing is too expensive. The resources they have, are mainly provided by the university. Even though they are not students any more, they still profit of the facilities. They build a network of professionals which they occasionally ask for advice regarding internal processes. This indicates their lack of experience but they are able to compensate this by consulting others in their network of professionals. The difficulties they endure are related to the estimation of workload and subsequently the estimation of costs and income. |
mentioned that this was improving while doing more projects. In other words, with increasing experience the optimization of this kind of internal activities will develop: ‘We know how much architects ask per hour and the difficulty is then to make a good estimation. And this is by trial and error, with this we ask often too little. But we are also inefficient because we have to do a lot of self-research. This is difficult because first you have to do something before you know how much it takes’.

| Costs and income | Parts of the facilities they use are provided by the university, this results in the possibility to minimize the costs. The challenge of the workload estimation has an impact on the costs and income as a miscalculation sometimes results in making too many costs in relation to the income. The firm has a strong division in projects that are only for generating income and projects that add to their value proposition. These money-generating projects are vital for the existence of the firm and form the basis of their income. They hope for a transition not only in the type of projects but also to see this transition in their income: “We try to combine it, we need those money-generating projects to be able to continue, but they do not add to that where we want to go.” |

The founders of the firm recognized that they did not have a clear story of their value proposition. They were insecure about what they want to offer the client and therefore the other parts of the business model were also hard to define. They have the ambition in the future to define their value proposition in more detail together with an advisor from their professional network who will assist them in this process.
Case C is a starting architectural firm, founded by two young adults right after their bachelor’s degree at a Dutch university. They work full-time for the firm and have a fixed office space.

In the first year of the firm, the founders joined a Dutch accelerator program for starting architectural firms. This program provided a workspace, personal assistance and workshops regarding setting up a business and facilitated the first contact and acquisition between the starting architectural firms and potential clients. The founders of the firm participated in this program during their starting year and continued on their own. The reason for this was a mismatch between the type of clients the accelerator program provided and the ambitions of the firm. During the transition between the accelerator program and continuing on their own, the founders realized the importance of the commercial side of running a firm. They had some difficulties with finding a balance between commercial thinking and their creative ambitions. According to them, they found this balance and from here they have the ambition to grow their business.

### Business model

| Value proposition | During the first years of the firm, their value proposition has changed. In the beginning they did not acquire projects with the value proposition they had, so from a certain point they shifted to design whatever the client wanted, without their own interpretation of it: ‘we started to design commercially: we designed what we thought the client would fit instead of what would fit with us as well’. After some time they tried to unify the artistic and commercial side by structuring their previous projects in themes. This resulted in a value proposition of which the founders think it contains both their personal ambition and artistic values and commercial aspect and values. This reunion was the turning point of their firm. |
| Client | During the process of finding their position on the market and a fitting value proposition the focus of the client segments changed. They now have a better view of clients they want to approach and the type of clients which approach them. Even though their client segments are very diversified, as long as the demands of the client fit with their value proposition, they will take the job: ‘We are not in the luxurious position to always adjust the situation as we want it, I also do not think this is a right thing, I think that it is very important to be flexible in the things that come along’. The way to reach their clients was first through the accelerator program. When they started individually they had to do more active acquisition like handing out flyers and approaching potential clients. They have the ambition to spend more time on the acquisition and broadening their professional network: ‘The strategy is now to select on quality rather than on quantity. So we are looking at which brands, which developers, which interiors we could improve and where we can project our values on so we could approach them personally’. |
| Infrastructure and process | Occasionally the founders ask advice from external professionals about certain internal processes. They mentioned that they improve their efficiency, e.g. the digital folder structure and on their computers. It took them a long time to find the most efficient and best fitting folder structure. Now that this is done, they have more time to concentrate on other activities like acquisition and |
marketing. They occasionally hire interns if they think they need the extra workforce. Also freelancers are asked for specific and/or technical drawing work when the workload becomes too much.

Costs and income From the start, the founders rented an office space. In the beginning they financed this themselves, later the incoming projects generated income to cover parts of the costs. They applied for government funding which is a loan to support starting businesses in the cultural sector. This helped them to professionalise and to give them the financial resources to grow the business: ‘We needed the external financing for the professionalization, but also for this we have financed half of it.’ They endured some setbacks in their operating budget of which they recuperate in the near future: ‘Actually we learned more about the process, because yeah.. we were just inexperienced and the next time we should act more firm to the client or just immediately refer to the general conditions.’

Because the founders have constructed a business model before, everything that has been discussed during the interview, was already known to them. They reflected on the business model with the intention and ambition to spend more time on acquisition as a part of their weekly tasks.
7.2.4. Case D

Case D is a starting architectural firm, founded by one person. He works full-time on his firm from his house. His girlfriend is working part-time for the firm as well as on her part-time study interior design. Her aim is to continue full-time at the firm after her graduation.

After his studies, he immediately wanted to start his own firm. Because his girlfriend had a steady job at that time, he was able to take the time he needed to learn about entrepreneurship and set up his firm. He mentioned that in the beginning of his starting years, he did not really have a clear vision and mission of where to go. He has a clearer image; currently he is in the process by structuring the organizational side of the firm. His girlfriend assists him in this part. She started her studies when the architectural firm had a steady income so she could quit her job and start her own studies.

Business model

| Value proposition | Currently, the founder mentioned to be at the end of a transition phase between past work he does not want to do any more and projects that fits his value proposition: ‘I notice that I become more selective with clients. I really want to move to the top segment [...] and as I am at the end of the transition phase, I can focus on this very good which I can use to acquire new projects as well.’ |
| Client | The founder had a clear image of the type of clients he wants to target and how to reach them. Nevertheless, he thinks he needs to adjust the channels how to reach his clients a bit more towards the type of clients. For example, he would like to make a transition from the medium wealthy individuals to the wealthy individuals and he thinks that he needs to adjust his way of acquisition to broaden his network towards these types of clients. During the session he brainstormed that through enlarging his business network, he can target also the private clients: ‘You first need recommendations to get adopted in this network and experience of course. Also your enthusiasm and the granting of such an project by those clients are important factors.’ The founder started with no network at all but put a lot of afford and time in enlarging this. He thinks that mouth-to-mouth advertisement is the main source of acquisition for architects. |
| Infrastructure and process | They have a clear view of their value proposition and the type of client they target and the channels how to reach them. Currently, they are in the process of improving the efficiency of internal processes. Correspondence, administration and acquisition cost them a lot of time and they both think they can improve this. They did not have an exact plan how to do this, but during the session they brainstormed about possible improvements in their activities and resources. They realised as well that they need legal and financial advice from external partners: ‘I consciously choose to do as much as possible by myself, because I liked to learn it and because I wanted the knowledge about my company’s data and numbers. But from a certain moment, you reach a point in which it does not pay off to do it yourself. Or it becomes too technical or too many specific knowledge that only an accountant has and therefore is would cost too much time to do it yourself.’ |
| Costs and income | The founder offers different services because he wants to generate various cash flows. The multilateral stream of income |
The founder and his partner reflected on the business model session very positively. They gained a lot of insight in all the components of their business model. The founder reflected that he already knew the content of the business model, but that it was very clarifying to structure it in this way.
## 7.2.5. Case E

Case E is a starting architectural firm, founded by one person. She works full-time for the firm and has a fixed office space.

Before founding her own firm, she had work experience in diverse architectural firms and other fields of work. During the foundation of her firm, she worked part-time at a bakery to be able to cover living expenses. When her firm started to generate more income, she decided to take the risk and focused full-time on the architectural firm. She has a boyfriend who was able to back up part of the living costs as he has a stable job.

### Business model

| **Value proposition** | The founder mentioned that over the years, she discovered where her personal strengths are. During her work experience in what aspects she wants to grow professionally. The value proposition was easy to define for her. Her experience after her graduation shaped her value proposition in the way she defined it during the workshop: ‘I am already very happy that I know in what direction I want to go. This is of course the first quest. But this, I think, is now pretty clear and what I have achieved in the past two years. Before that, I was really seeking in what I do and do not want to do.’ She mentioned not to be in a transition phase anymore and she came into a position in which she thinks she wants to continue within the current position. Growing for her means not necessarily in the type of projects, but rather in project size and office size. |
| **Client** | Her formulation of the value proposition is very clear and the matching clients are therefore easier to find. The ways how to reach those clients, is the most challenging part. Mouth to mouth acquisition is the most common channel according to the founder, hence broadening the professional network is the most important aspect to focus on. During her experiences in her firm, she discovered an opportunity in the market and created an innovative idea how to reach the client. |
| **Infrastructure and process** | The office space she rents is a shared room with other freelancers in the construction industry. They occasionally collaborate on projects as they complement each other’s work. ‘The situation is that if we have too much work, we hire a freelancer or we consult each other. But I try to surround myself with more people so they can take part of my work. If it continues like it is going now, then I think we start thinking of hiring an intern.’ Due to her office space and her professional network she has built over the years, she created a pool of consulting professionals. |
| **Costs and income** | The difficulties she endures relate to making a good cost and time estimation of her proposals. In addition, staying within budget is a challenge as she mentioned to be too perfectionistic or if clients are too demanding and therefore making too much hours. ‘I have to admit that I never had a really good insight in my finance. This is why I hired an accountant to see how much I had to pay for income tax and how I can take the advantage of the fact that I am self-employed and therefore can apply certain deductions of investment taxes.’ |
She reflected on the business model to be very helpful as a reminder that the client contact is important and the business model clarified in what direction she wants to go. Also it was a good personal reflection to see for what she has achieved in the past years and it gave her personal insights. She judges the process of gaining a more business-like attitude, which she thinks is necessary in order to grow.
7.2.6. Case F

Case F is a starting architectural firm, founded by three architects. During the first year, another architect became a partner, which results in a partnership agreement of four people. They all have approximately 10-15 years of experience before founding their current firm.

The founders have experiences at other architectural firms, but also started individually as freelancers. Their current firm is a merger of all three individual architectural firms. Therefore, the current firm started with a broader portfolio, as the portfolios of three individual architectural firms have been combined. This results in a broader spectrum of experience and expertise. This merger was both a strategic as well as practical decision. The business side of the architectural firm came for them ad hoc. They reacted to the opportunities that came along.

**Business model**

| Value proposition | They mentioned to have passed through a transition phase before arriving at a position in which they want to stay. Their aim is to work on middle scale projects for both residential and public buildings. In the past, they also worked on smaller residential extensions, but this was not what they wanted to do. Currently they do not need those smaller projects and are able to continue with the projects they really want to do. From their previous experiences, this value has been shaped as it currently is. They think that defining this value proposition is something you do not learn at university but comes with increasing experience: ‘I think when you are studying at the university, you first have to do an internship to get a grasp on what the world of being an architect is’. ‘When you have been working for 10 years, then you are able to define your position and how you like to design’. |
| Client | Because of the merger of the three individual architectural firms, they started their current firm with a broad spectrum of work and experience. They displayed their portfolio on their website and on social media. This gave potential clients the confidence of the expertise. According to them this was the key to an increasing growth of work. Clients approach them instead of vice versa. ‘That we have been growing is because of our network. They gave us the trust to first ourselves as individuals and later as a collective. We built something and that turned our very good and we still profit.’ ‘Yes, you need to get the opportunity to prove yourself. That was difficult. But we got that opportunity.’ |
| Infrastructure and process | For them, the difficulty is not anymore in what they want to offer the client exactly (the value proposition) but more in how to grow into their organization and how to make it more efficient, for example the struggle with time management and planning. They hired an amount of personal and occasionally facilitate an intern who helps them with drawing work. They are in a phase in which the amount of work is growing and they need to estimate how many additional personal they need and how to divide their time and work. ‘Imagine somebody gets ill this has quite an impact in comparison to a large firm. This means that we are considering hiring more people. But despite the size of your current portfolio, you need to grow first in order to be secure that you have work for the coming 4 years’. |
The costs they have to cover relate to the rent of the office space, software licences, hardware, reproduction costs and other small costs. As the legal form the firm is a partnership. Their joint profit is their personal income. Therefore, they do not have a profit for the company. The income structure is mainly a fixed amount per project, which is standard in the architectural business. The small projects they used to do in their start-up phase, do not generate enough income anymore to run the firm. They now generate the majority of their income by projects that correspond with their value proposition.

As a reflection they agreed that the workshop has been a good eye opener to shift their focus from fine-tuning their architectural value proposition to optimizing the internal and external processes.
from start-up to scale-up
8. Conclusion and discussion
This chapter presents the synthesis and the conclusions of this research. The synthesis forms the interpretation of the results and highlights the insights the empirical study brought about. After the synthesis, the conclusion answers the main research question. Finally, the lessons and recommendations for starting architects and relevant parties are presented.

8.1. Synthesis
8.1.1. The starting architectural firm in the Netherlands
In order to answer the first sub-question What is a starting business?, an elaborate literature review has been conducted. The person who starts a new business is often called an entrepreneur. This is an economic agent who starts a business with a new product or service by taking all risks in order to discover and explore profitable opportunities. He or she competes and cooperates with other economic agents in the present moment with anticipation on the future. The function as entrepreneur often comply both managerial as well as entrepreneurial tasks. Entrepreneurship and start-ups are related to each other. The organizational emergence phase (pre-founding) and start-up phase (at present and immediately after founding) form the centre of the start-up perspective. In the theoretical framework three characteristics of a starting business have been defined: (1) existence of three years or younger, (2) not yet gained a stage where it has reached a break-even point and (3) not sustainable from internal cash flows (Volkmann et al., 2010). The findings of the questionnaire that answers the sub-question What characterizes the starting architectural firm in the Netherlands? did not respond with the findings of the literature study. First, the age of the starting architectural firm has been pre-set on four years as the sample size would have been too small otherwise. Second, the majority of the starting architectural firms indicated to be profitable. Finally, almost all starting architectural firms indicated to be able to cover all costs and therefore sustainable from internal cash flows. An explanation might be that the definition of a start-up as has been subtracted from literature is more applied to start-ups that are product-based and therefore are more capable for scalability. Meaning, product-based business have a high initial investment as design of the product, the prototyping and manufacturing cost a lot of money before being able to generate income from sales. The architectural office does not have this large initial investment as it offers a service, which ‘directly’ can be offered instead of first going through the design and manufacturing process.

As the characteristics of the starting architectural firm in the Netherlands does not correspond with the definition found in literature, it has been compared with the average architectural firm in the Netherlands as reported by the BNA (2016). Here, the distinctive characteristics of a starting firm became more explicit. The two main differences between starting and the average firms regard the size, turnover and type of projects. The majority of the starting architectural firms do not have personnel because they do not have enough work and financial stability to hire personnel. The starting architectural firm has a lower yearly turnover. Based on the questionnaire and from data collection from the case studies, the explanation might be that they are not yet capable of acquiring larger projects as they lack experience and network and therefore trust from the client. The kind of projects starting architectural firms do are more smaller scale projects such as interior and residential projects. The explanation might be that starting firms have difficulty breaking the vicious circle of having access to a network of potential clients that have larger projects and having the portfolio that gives clients the confidence of relevant experience.

During the empirical study, a distinction within the concept of a starting architectural firm appeared. This distinction is important in order to understand
and formulate the main findings. It concerns a difference between starting architectural firms with founders with work experience in the field of architecture and founders without work experience. Case A, B, C and D started their firm right after obtaining their degree at the university. Case E and F have had work experience after their university in other firms or related work fields. The founders of case E and F mentioned that their previous work experience helped them in certain aspects of founding a firm, such as organizational know-how or providing a network of professionals and experts in their work field for consultation and advice. The founder of case E uses her network for getting and providing work: ‘I know this engineer that I often call if I don’t know something and I need advice. But I also pass through some work to him if I cannot do it myself’. To be able to differentiate the ‘type’ of starting architectural firms and for the purpose of clarification, they will be named the inexperienced starting architectural firm and the experienced starting architectural firms it adds to the definition of what a starting architectural firm is.

8.1.2. The business model of starting architectural firms
For the sub-question What is a business model? a literature review has been conducted. It occurred that there is an increasing importance of the business model concept that brings along many new researches and scholarly debates. Yet, there is no universal definition about the concept ‘business model’. The business model for start-ups has to be simple, logical, comprehensive and measurable. It has to alternate its direction as start-ups usually revise their business model multiple times. Despite one universal definition, almost all business models find a common ground in four elements: (1) value proposition, (2) customers, (3) infrastructure and processes and (4) revenue and cost structure. Business models occur in every firm, despite whether they are explicitly and consciously set up or are more implicit and not consciously defined.

Architectural firms can be categorized under the Creative Professional Service Firms (CPSFs). For CPSFs, the main drive of the business model is not profit. They aim for customer, user and/or social value, professional value (e.g. reputation and work pleasure) and organizational continuity (Bos-de Vos et al., 2017). The study of Bos-de Vos et al. (2017) revealed three main challenges in the business models of CPSFs. First, the value proposition of firms and the value capture does not always correspond with each other. Second, in the process of value capturing, architectural firms are often hindered by resource dependency. Third, it is difficult to determine the value proposition into money at the beginning of a project. During the coding of the collected data from the case studies, these challenges have also been observed. However, as these challenges in the business model are similar in starting and in established firms, the synthesis focuses more on the assumedly distinctive business model characteristics.

During the case studies, three main findings have been found. The main findings are the result of a selective coding process. Selective coding is the organization of the subcategories, as presented in the previous chapter, around a central explanatory concept. Three central concepts have been detected: the transition in focus, the transition in epicenter and the transition from a mismatch to a match within the business model. These three transitions are discussed below. They form the answer on the last sub-question: Characteristics of a business model in a starting architectural firm?

1. Transition of focus
The first main finding about the business models in starting architectural firms relates to a transition of focus within the business model among all the cases. The focus signifies where the centre of attention lies within the business model. Basically, it appoints the aspect on which the firm concentrates the most or what
is the most difficulty to define during the case study observations when setting up the business model.

The transition of focus takes place between the cluster of the value proposition and client aspects and the cluster infrastructure and processes and revenue and cost structure aspects (see figure 17). The transition appears during the process of starting the firm. In the beginning, all firms focused mainly on what they want to offer the client and which client they serve with their proposition. For the architectural firms, this defined their personal identity within the profession and the development of their vision and mission. The more they had their value proposition and vision of client segments clear, the more they started to focus on optimization of internal processes and cost and income structure. Basically, this transition shows the process of moving away from being a start-up firm.

Before the transition, the focus is on the value proposition and the client segments. From the case studies, it has been observed that the experienced starting architectural firms, this transition took place earlier in the process in comparison with the inexperienced starting architectural firms. The explanation lies in the fact that the years of working in the field architecture, creation of identity and formulation of their autonomous vision and mission. Also, the experienced starting architect has a bigger professional network than the inexperienced architect. This is an advantage for both the opportunity of potential work as well as for the possibility to consult professionals for work related difficulties or unclariies.

The optimization of internal processes has mainly been observed through economy of scale. The architectural firm is a professional service firm. The service firm involves the delivery of a unique customized service, as opposed to mass-production processes that replicate products. Economy of scale is based on the principle that increasing the production scale may generate economic efficiencies. This efficiency is the ability to carry out a particular job with minimum time and effort. Even though economies of scale are often used in produced-based companies, service firms may still achieve economies of scale in their business operations. This economy of scale has been observed during the transition of focus. When undergoing the transition from defining value proposition to optimizing internal organization, the firms started to outsource certain tasks, which before they all did in-house. By outsourcing work, a firm is able to reduce capital and human resource allocation which is otherwise needed for internal operations. Outsourcing is a way to control costs related to staffing and operational processes.

Hence, the transition is an indicator from a start-up to a scale-up. The start-up architectural firm focuses on what they want to offer and to whom and so determines its competitive advantage. As soon as they gained a large enough professional network and enough experience to be able to take on more projects, they start to scale-up their firm by outsourcing work and optimize cost and income.
Cases A and B were mainly focused on the value proposition and the clients. Case A was able to define their value proposition quite specifically, however for them the client segment was difficult to connect with the value proposition. They did not have a good image of which clients they appeal with their value proposition and how to reach them. Case B was not able to define their value proposition specifically; it stayed very broad and conceptual. There was a lot of brainstorming and discussion during the session about what exactly they wanted to offer. Cases E and F could define quickly and specifically what they offer and to whom. A founder of case F formulated it in the following way: ‘If you have worked for 10 years, you discover more and more how you design and you’re your vision is’. Cases E and F talked more about the difficulties they had with time management and setting up good proposals. This indicates that case E and F are more focused on optimizing their organization. Cases C and D could define their value proposition and their client segments rather clear and specific but had more difficulties with the channels how to reach those clients and how to organize this internally. They mentioned already have determined their position in the market, but to actually execute and reach this, was their current focus. This indicates that these two cases are in the transition phase between the two focus points as mentioned before. Case D was more in the beginning of this transition, meaning his value proposition was solid and he was aware of the step he needs to make to actually execute his values, but the step had not been made yet. Case C on the other hand, was already further in this transition phase, meaning their focus was not on their value proposition anymore. Their client segments were well defined, but the channels of how to reach this was something they needed to think about more. They are at the end the transition phase because they were simultaneously planning to hire interns. This indicates to move into optimization of internal processes as they need more resources to fulfil the acquired work.

2. Transition in epicentre
The transition in focus also applies to the epicentre of the business model. An epicentre is the starting point for a change in the business model which impacts the other building blocks (Osterwalder et al., 2010). For example, when change or innovation is based on the client needs, then from the business model aspect client - the epicentre - the value proposition, infrastructure and process and cost and income will be adjusted.

During the case study, it has been observed that in the process of starting an architectural firm, there is a transition of epicentre (see figure 18). In the early stages, the epicentre lies in the business model aspect ‘client’. In the later stages, the epicentre shifts towards the value proposition. This means that in early stages, the business model is based on the needs of the client and later the value proposition will become the epicentre of the business model.

![Figure 18: transition in epicentre within the business model](image)

This shift is explained, because in the early stages, the value proposition is not clear yet and that they are financially unstable. This results in client needs have the strongest position to let the rest of the business model aspects change. When the value proposition becomes clearer, when the architectural firm has gained a
certain market position, and cost and income were more stable, the interviewed architects became more selective in projects, meaning the client did not cause changes in their business model anymore. A shift towards their values affected the selection of clients, fitting infrastructure, process, costs and income.

Case A and B had their epicentre very clearly in the client aspect. This is concluded from the observations that they are not selective in the projects they accept. As they have not gained a position yet in which they have a clear value proposition and therefore also not a clear image of the client segments they are targeting, the client mainly determines the kind of projects they do rather than the other way round. Case D was also in this position, but because he had a better insight in which clients he wants to target, he could be classified of entering the transition between the epicentre in the client aspect and the epicentre in the value proposition aspect. Case C mentioned that at the moment of the interview, they are trying to find the balance between accepting projects that just generate income but does not necessarily fit their value proposition and just accepting fitting projects. They mentioned that they are going in the direction of being more selective in the projects they accept which are more in line with their ambitions. However, sometimes they also accept projects that are not in line. This indicates that they are in the transition phase between the shift in epicentre. Cases E and F already passed this transition phase. They mentioned to have gained a position in which they can be more selective in the clients and projects they accept and mainly accept projects which are in line with their value proposition.

It has to be noted that architectural firms stay professional service firms. The needs and demands of the clients are very important and often leading in the execution of the value creation. However the autonomous character of the architect strives for an epicentre in the value proposition and only when financial stability is at stake, a shift of epicentre back to the client segment is expected.

Furthermore, there is no connection between the years of experience of the founder and the placement of the epicentre within the business model. All cases have gone through or are still into having an epicentre in the client aspect. It appeared that the placement of the epicentre is more related to the transition in focus during the start-up phase rather than the amount of experience. Nevertheless, the timespan in which this transition of both focus and epicentre takes place does depend on the amount of experience the founders have. As mentioned before, the more experience the founders have, the faster they go through the transition of focus and therefore also through the transition of epicentre. This has been observed mainly in case F. Because all founders have relatively a lot of work experience before the foundation of their firm, they mentioned to have defined their value proposition rather quick: the projects they accepted in the beginning phase were already going very quickly towards a matching their value proposition. In other words, the amount of experience does not necessarily say something about the characteristics of the business model itself, but does influence the process of the evaluation of the business model during the start-up of an architectural firm.

3. Mismatch within the business model
The transitions of focus and epicentre are caused because of a mismatch between the value proposition and the cost and income structure. In the start-up phase a difference has been observed in all cases between money generating projects and projects that add to the value proposition. The majority of the interviewed architectural firms mentioned to have a mismatch between what they want to offer -value proposition- and how they actually generate their income -cost and income-. In a figurative sense, they often want to design ‘apples’ but generate their income by designing ‘pears’ (see figure 19).
Often architects, before being able to design apples, need more experience and a larger professional network. As this takes time, in the meanwhile they cover their costs by the income of the ‘pears’. When they have enough experience and network to be able to reach the ‘apple’ projects, there is a transition from an internal business model mismatch to a match: when they propose apples and their main income is generated through apple projects.

This was shown in cases A, B, C and D. The founder of case B phrased this as follows: ‘we need the money generating projects just for the fact to be able to continue our business, we do not do those projects because it brings us to the projects we want’. Cases E and F generate the majority of their income by the projects that fit their value proposition. This has been derived from the fact that the difference between money generating projects and projects that correspond with the value proposition has not been mentioned at all. Also, both cases mentioned, they have declined certain projects in the past which did not fit with their mission and vision. This indicates that they are able to generate their income with the projects they choose to do and therefore directs towards a match between value proposition and costs and income.

There are two important notes to be made. First, this mismatch is not a bad phenomenon. In fact, it is often a necessary aspect of the starting-up phase as it keeps the business going and it teaches founder(s) how to organize their business and make them familiar with the process from the acquisition of a project until the execution. Also by doing something they do not like, it develops a better understanding for the architects in what they do want to specialise or focus on and how to get the right clients through the right channels. Second, there is awareness that figure 12 is not totally correct. As the firm generates its income with pears, consequently it means that it also offer pears in the value proposition. However, what has been attempted to demonstrate in figure 19 is the mismatch between what they ‘want’ to design and how they actually generate income.

8.1.3. Desire to deviate from traditional architectural firm
During the case studies, almost all starting architectural firms mentioned to be different than the ‘traditional’ architectural firm. The question arose what a traditional firm is and why they are different. As all inexperienced starting architectural firms asked advice to professionals in their field when they had difficulties with certain aspects of running a business, it is expected when doing this, they actually copy a lot of aspects of the ‘traditional’ firms.

Several founders defined a traditional architectural firm independently from each other as a firm with regular residential projects who had blunt logos and are mainly oriented towards providing a service. One of the founders in case C defined it as ‘a service-oriented and boring firm’. His co-founder replied: ‘Yes, if you are looking at architectural firms on the internet, of course you have the big offices that are very creative, but 90% is really just the same with a grey logo and a website with just a portfolio. All super boring’. As their definition of a traditional
architectural firm is subjective and could even be interpreted as rather limited or
generalised, it turned out that they wanted to distinguish mainly their value
proposition from other architectural firms. In other words, they are very aware of
their competitors and seek for a different value proposition to enter the market.
However, this competitive awareness has been found in the value proposition
aspect of the business model. It has not been found in the other four aspects of
the business model. Just one exception in the observed cases has been found.
The founder in case E wanted to approach the client in an innovative way, which
deviates from the other architectural firms. In conclusion, the business model of
starting architectural firms is not very different from other architectural firms, but
their competitive advantages lies in the values they offer.

An explanation why the business models of starting architectural firms
might not be innovative and different from other firms, is that they simply are too
small a player in the entire construction process to be able to ‘set the rules of the
game’. Also an important factor might be that the lack of experience in the field
causes the adoption of regular ways of doing rather than proposing new ways.
The construction industry in general might be perceived as rather static. So if
there is hardly an innovation in the industry, proposing innovation from small
starting firms might be too risky.

8.2. Conclusion
In order to answer the main research question, first the definition of a starting
architectural firm has to be adjusted. As previously defined, the age of the firm
appeared not to be a good indicator. There is a big difference between
architectural firms within the same range of age, as is seen from the case studies.
The main indicator is a subtler and less explicit characteristic than age. The
definition of what a starting architectural firm is can be derived from the explicit
findings from the questionnaire as well as from more implicit findings from the
business models in the case studies. From both the questionnaire and the case
studies, it appeared that the definition of a starting architectural firm should be
more related to the market position and the income stability. The market position
indicates whether a firm already gained and/or defined a certain niche in which
they want to focus on. The stability of income indicates whether they are able to
generate the majority of their income within the market position as they have
defined. The start-up phase of an architectural firm is characterised when the two
previously mentioned aspects have not been reached. In other words, a starting
architectural firm is starting as long as the market position is not (yet) specifically
defined and when the income stream is not (yet) stable.

The characteristics of the definition of a starting architectural firm can
also be found in the characteristics of the business model. The business model of
an architectural start-up characterises itself by the strong focus on the value
proposition, the definition of a matching market position, and the client segment.
The epicentre lies in the client segment aspect of the business model and often
there is a mismatch between the value proposition and their cost and income
structure. In the case studies it has been observed that there is a transition within
the business model over time. A transition of focus and epicentre takes place
towards the optimization of organisation processes in order to grow in the amount
and/or type of project.

It has to be noted that the moment in which a starting architectural firm
not anymore starting is, more a process is rather than a clear and specific
milestone. There is a transition away from a start-up that moves towards a scale-
up. The moment in which the transition takes place appeared to be mainly linked
to the amount of work experience the architects have before founding the firm.
The firms with founders with previous work experiences turned out to go through
the start-up phase faster than the firms without previous work experience.
8.3. Lessons and recommendations
This research provides insights in the business models of starting architectural firms in the Netherlands. From the findings, some lessons can be learned and recommendations can be proposed for starting architectural firms and other related parties.

The first and most obvious finding for starting firms is the importance of consciously setting up a business model. It appeared that starting architectural firms often do not capture their goals and business model into writing. A tool like the business model canvas of Osterwalder et al. (2010) might be of great support in gaining insight in the current status of the firm’s organization, the future aspirations and how to get there. Yet, it is important to keep a flexible attitude towards the business model. As starting architects often have not defined their value proposition or are in the process towards this, it is crucial to be open for revising the business model and adjust it when needed. Setting up a business model could add the competitiveness awareness. The flexible attitude could add to the resilience in a changing market and therefore could increase survival possibility over time.

Second, as the professional network is the most important source of both advice and acquisition, a recommendation for starting architects is to actively start enlarging their network from the beginning. In addition, it increases the time between the start-up and the transition in focus and epicentre which increases the survival change.

Third, a mismatch was observed between the types of projects as defined in the value proposition of the business models and the type of projects in which starting architects generate the majority of their income, might partly be explained by the lack of professional network and the lack of experience, which is a normal process in the start-up phase. However, as there are plenty of governmental programs and other incubator and accelerators which financially support starting businesses, it might be a possibility for starting architects to apply for these kinds of funding. It could give starting architects the freedom to focus more on the projects they would like to do instead of working on projects that do not fit their ambitions. This could spur the transition between start-up and scale-up. However, money-generating projects are necessary to build a network and to gain experience: it contributes to the definition of the value proposition and the client segments. Notwithstanding, external funding has helped one of the observed cases to make it possible to professionalise and to help the firm to a higher level.

The last recommendation directs to architectural institutions and associations. In the Netherlands, architects are not educated for entrepreneurship at the university or other schools. In their education no courses have been dedicated to the aspects of starting an own firm. This implies financial, organizational and acquisition knowledge. A recommendation for educational institution and/or architectural associations is to offer help and support to this kind of aspects. As observed in the cases, making time estimations and drafting of proposals is experienced as difficult. Workshops or low-cost advice how to enlarge the network, providing support in the organization of a firm and financial explanation and hosting network events could kick-start young architects.
9. Discussion

9.1. Limitations
The concept of a research as an iterative process and with the framework of Eisenhardt (1989) it was possible to continuously revising of new literature and information. The concept of defining research as an iterative process, as well as aids to structure it within the research. Nevertheless, the nature kind of the data collected imposes some limits on the research.

Firstly, based on the first definition of a starting architectural firm 51 starting architectural firms were found in the database of the Chamber of Commerce (reference date 1-1-2014). Eleven additional starting architectural firms were found from a personal network. This implies that not all starting architectural firms were registered in the Chamber of Commerce. Therefore, the total magnitude and optimal sample size was difficult to determine.

Secondly, the findings of the questionnaire were a representation of 40% of a sampling of 62 starting architectural firm. No follow up has been conducted about the nature of the non-responders. The reason why the firms did not respond, has not been taken in consideration and therefore limit the external validity.

Thirdly, as the questionnaire has been sent by electronic mail, no interviewer was available to clarify of probe the questions. Also respondents may be doubtfully with their answers. Reasons could be social desirability and attempting to protect privacy.

At last, due to a limited timeframe, only six starting architectural firms were represented in the case studies. Nevertheless, the case studies form a good representation of the respondents of the questionnaire due to the five divergent criteria. The internal validity is therefore high as the results are extrapolable over the sampled population. However, the external validity cannot be guaranteed. The results are not generalizable over the entire population of starting architectural firms in the Netherlands as the total magnitude has not been determined. A quantitative study on a bigger scale is needed to generalize the findings of this study.

9.3. Further research
This research is the first attempt to study starting architectural firms from a business model perspective. It is a descriptive study about the characteristics of starting architectural firms and their business models. It aims to be an introduction for a wider perspective of research. Further research is needed to gain a better grip on this group of architects and their business types.

During the research process, several topics need more exploration. During the definition phase of what a starting architectural firm is, the difference between starting architectural firms with founders with and without experience appeared. Further research is needed to gain more insights on the effects of previous work experience on the formation of a firm and the effects on the business model. Also comparing business models of starting and older architectural firms might give insight in the specific characteristics of starting firms.

Furthermore, as mentioned by some participants of the case studies, clients choose starting architectural firm because of their low prices. A more in-depth study about the considerations from the client point of view to prefer starting architectural firms over an established firm might be a revelation to better understand the strengths and weaknesses of starting architectural firms. This could for example help starting architectural firms to propose better market-orientated value propositions.
Literature


Appendix A: Questionnaire

Onderzoek naar startende architectenbureaus in Nederland

Beste meneer/mevrouw,

Mijn naam is Esther Brejaart, masterstudent aan de Technische Universiteit Delft. Voor mijn afstuderen doe ik onderzoek naar jonge, startende architectenbureaus. Ik focus me op twee aspecten, namelijk (1) wat is een jong, startend architectenbureau en (2) wat karakteriseert het business model van jonge, startende architectenbureaus. Met dit onderzoek probeer ik meer inzicht te krijgen in de problemen waar deze architectenbureaus mee te maken hebben, wat hen kan helpen met het definiëren van een business model. Het onderzoek brengt eveneens in beeld wat er niet in het huidige architectuuronderwijs om startende architecten beter voor te bereiden op de praktijk.

Mijn afstudeeronderzoek is een samenwerking met het FuturA project, een vier-jarig onderzoek van de TU Delft, Radboud Universiteit Nijmegen en de BNA naar bestaande en nieuwe verdien- en organisatiemodellen voor de architectenbranche. Het FuturA project is op dit moment in de afrondende fase en zal aan het begin van 2018 de resultaten publiceren waaronder ook mijn afstudeeronderzoek. Meer informatie over dit project kunt u vinden op http://www.future-architecten.nl.


Alle gegevens worden geanonimiseerd en zullen vertrouwelijk worden behandeld. Als u vragen heeft betreffende het onderzoek of deze vragenlijst, kunt u mij bereiken via e.brejaart@gmail.com.

Hartelijk dank voor uw medewerking!

*Vereist

Persoonlijk

1. Naam: *

2. Geboortedatum: *

Voorbeeld: 15 december 2012
3. Uw hoogst afgeronde opleiding *
   Markeer slechts één valse.
   ☐ Master aan universiteit
   ☐ Master aan HBO
   ☐ Bachelor aan universiteit
   ☐ Bachelor aan HBO
   ☐ MBO-opleiding
   ☐ Anders:

4. In welk jaar heeft u uw hoogst afgeronde opleiding afgerond? *

5. Hoeveel jaar werkvaring heeft u in de sector waarin u nu werkt? *
   Markeer slechts één valse.
   ☐ 0-1 jaar
   ☐ 1-2 jaar
   ☐ 2-3 jaar
   ☐ 3-4 jaar
   ☐ 4-5 jaar
   ☐ 5-10 jaar
   ☐ 10-15 jaar
   ☐ meer dan 15 jaar

Uw bureau

6. Naam architectenbureau *

7. Oprichtdatum van uw bureau *
   Voorbeeld: 15 december 2012
8. Uit hoeveel eigenaren bestaat uw architectenbureau (inclusief uzelf)? *
   Markeer slechts één ovaal.
   ☐ ik ben de enige eigenaar
   ☐ 2
   ☐ 3
   ☐ 4
   ☐ 5
   ☐ Wij bestaan uit meer dan 5 eigenaren

9. Uit hoeveel medewerkers bestaat uw bureau? *
   Dit is het totale aantal medewerkers, inclusief uzelf en uw eventuele partners.
   Markeer slechts één ovaal.
   ☐ ik werk zelfstandig zonder medewerkers
   ☐ 2
   ☐ 3
   ☐ 4
   ☐ 5
   ☐ 6
   ☐ 7
   ☐ 8
   ☐ 9
   ☐ 10
   ☐ 10-15
   ☐ 15-20
   ☐ Meer dan 20

10. Hoeveel van het bovenstaande aantal werknemers werken er momenteel full-time in uw bureau? *
    Vul hieronder het aantal full-time medewerkers in cijfers. Als u geen full-time medewerkers
    heeft werken momenteel, vul dan een '0' in.

11. Hoeveel stagiaires heeft u momenteel in dienst in uw bureau? *
    Vul hieronder het aantal stagiaires in cijfers. Als u geen stagiaires heeft werken momenteel,
    vul dan een '0' in.
12. Wat is de rechtsvorm van uw architectenbureau? *

- Eénmanszaak
- Vennootschap Onder Firma (VOF)
- Beperkte Vennootschap (BV)
- Commanditaire Vennootschap (CV)
- naamloze Vennootschap (NV)
- ik heb nog geen rechtsvorm gekozen
- ik weet het niet
- Anders:

13. Welk verdienmodel is van toepassing op uw bureau? *


- Vast bedrag
- Basis uurtarief
- Percentage bouwkosten
- Anders:

14. Is uw bureau kostendekkend? *

Kostendekkend houdt in dat de kosten (personeel, locatie, computers, software, etc.) kunnen worden gedekt met de inkomsten die worden gegenereerd uit projecten en andere aanbiedingen van het bureau.

- Ja
- Nee
- Weet ik niet

15. Is uw bureau winstgevend? *

Winstgevend houdt in dat de inkomsten die worden gegenereerd uit projecten en andere aanbiedingen van het bureau, de kosten (personeel, locatie, computers, software, etc.) overschrijdt.

- Ja
- Nee
- Weet ik niet
16. Wat is uw gemiddelde jaaromzet? *
Deze gegevens zullen strikt en alleen voor onderzoekdoeleinden worden gebruikt. Deze vraag is toegevoegd om meer inzicht te krijgen in de financiële kant van het startende architectenbureau. Vul uw gemiddelde jaaromzet vanaf datum van oprichting t/m 2016 (in cijfers). Weet u uw gemiddelde jaaromzet niet, vul dan in ‘weel niet’. Wilt u uw gemiddelde jaaromzet niet vrijgeven, vul dan in ‘nv’.

17. Wat is uw jaaromzet van 2016? *
Deze gegevens zullen strikt en alleen voor onderzoekdoeleinden worden gebruikt. Deze vraag is toegevoegd om meer inzicht te krijgen in de financiële kant van het startende architectenbureau. Vul uw jaaromzet in (in cijfers). Weet u uw jaaromzet van afgelopen jaar niet, vul dan in ‘weel niet’. Wilt u uw jaaromzet van afgelopen jaar niet vrijgeven, vul dan in ‘nv’.

Uw projecten

18. Hoeveel projecten heeft uw bureau reeds gerealiseerd? *
Vul het aantal in in cijfers.

19. Aan hoeveel projecten werkt uw bureau momenteel? *
Vul het aantal in in cijfers.
20. Aan wat voor soort projecten werkt uw bureau?

- Woningbouw projecten
- Kantoren
- Winkel en retail
- Onderwijs
- Interieur projecten
- Stedenbouw projecten
- Landschapsprojecten
- Visualisatie en rendering projecten
- Kunstprojecten
- Sport en recreatie
- Landbouw en industrie
- Gemengde projecten
- Anders:

21. Voor wat voor soort opdrachtgevers werkt u? *

- Particulier
- Bedrijfsleven
- Projectontwikkelaar
- Aannemer
- Corporaties
- Overheid
- Overig

22. Hoe verkrijgt u uw projecten? *
Vink de relevante opties aan. Meerdere opties zijn mogelijk. Vink alle toepasselijke opties aan.

- Europese aanbesteding
- Na visiepresentatie
- Na prijsvraag
- Offerte in concurrentie
- Offerte in niet concurrentie
- Directe opdracht
- Anders:

79
23. Op wat voor manier heeft verwerft u mogelijkheden tot het verkrijgen van opdrachten?

Vink de relevante opties aan. Meerdere opties zijn mogelijk.
Vink alle toepasselijke opties aan.
- Persoonlijk netwerk (familie, vrienden)
- Bestaand professioneel netwerk (nieuwe zakelijke contacten)
- Nieuw professioneel netwerk (nieuwe zakelijke contacten)
- Zelf initiëren
- Adverteren
- Anders:

24. Wat is uw positie als architect in het project? *

Vink alle toepasselijke opties aan.
- Haalbaarheidsonderzoek
- Alleen ontwerp
- Ontwerp tot en met bouwvordering
- Ontwerp tot en met esthetische begeleiding
- Ontwerp tot en met directievoering
- Anders:

Vervolg workshop

Hartelijk dank voor uw medewerking!

Van september tot en met november zullen workshops worden georganiseerd met een selectie van respondenten. Het onderwerp betreft het nader analyseren van de business modellen binnen jonge, startende architectenbureaus. De workshops zullen ongeveer 1,5 uur duren en zullen op de locatie naar uw keuze plaatsvinden.

Inhoudelijk heeft de workshop een interactieve opzet waarin ik, samen met u, de algemene organisatie van uw bureau onder de loep neem waaruit een business model kan worden geconcludeerd. U heeft geen voorkennis te hebben over ‘business modelleren’ en ook geen business model te hebben gedefinieerd. Uw business model zal gedurende de workshop vanzelf duidelijk worden.

Deelname aan de workshop kan erg leerzaam zijn voor uzelf omdat het meer inzicht kan geven in uw organisatie en de strategische keuzes binnen uw bureau. Daarnaast zou ik mijn behoren aan het onderzoek naar het professionaliseren van startende architectenbureaus en de daarbij behorende competenties.

25. Zou u geïnteresseerd zijn om deel te nemen aan een workshop? *

Markeer slechts één vaaal.
- Ja
- Nee

26. Zo ja, vul hieronder uw email adres in
Appendix B: Findings questionnaire

Figure 1.1: The age of the respondents by the respondent ID

Figure 1.2: highest completed education

Figure 1.3: working experience in the construction sector (in years)
Figure 1.4: Age of the architectural firm (in years) by the respondent ID

Figure 1.5: Amount of founders of the firm
Figure 1.6: Size classification (amount of employees)

Figure 1.7: Average number of intern by the size of the firm

Figure 1.8: legal form of the firm
Figure 1.9: Average turnover by the size of the firm

Figure 1.10: Percentage of the amount of firms that are (not) able to cover general costs

Figure 1.11: Profitability of starting architectural firms
Figure 1.12: Number of projects by age of the firm

Figure 1.13: Way of income (in percentage)

Figure 1.14: Way of acquiring projects (in percentage)

Figure 1.15: Source of acquiring projects (in percentage)
Figure 1.16: type of clients that starting architectural firms work for (in percentage)

Figure 1.17: type of projects that starting architectural firms work on (in percentage)
Appendix C: Interview protocol

**Welkom**

1. Voorstelronde;
2. Instructie van het interview;
3. Vragen voor onduidelijkheden.

**Onderdeel A**

1. Wat houdt de zakelijke kant van het bureau in voor jullie? Bijv:
   a. Acquisitie;
   b. Marketing;
   c. Communicatie;
   d. Financieel;
   e. Juridisch.
2. Hoe gaan jullie om met de zakelijke kant van het bureau? Bijv:
   a. Laissez-faire;
   b. Trial en error;
   c. Gut feeling;
   d. Op ervaring van vorig werk bij architecten bureau(s);
   e. Volgens vooropgezette regels/protocol.
3. Hoe belangrijk is voor jullie de zakelijke kant van het bureau?
   a. Is het iets wat moet gebeuren?
   b. Is het een tool voor jullie om projecten/bureau beter te maken?
4. Kijkend naar wat jullie doelen, visie en missie is, in wat voor mate denk je dat de zakelijke kant van het bureau hierbij aan kan bijdragen?
   a. Zo ja, hoe doen jullie dit?
   b. Zo nee, waarom niet?
5. Zitten jullie nu op een positie (marktpositie) waarin jullie willen zitten?
   a. Zo ja, welke is dit?
   b. Zo nee, is de huidige positie een transitie naar een andere markt/niche?
6. Hebben jullie een business model?
   a. Zo ja, wat is dit? Wanneer is deze opgezet?
   b. Zo nee, kennen jullie het begrip?

   (Geef korte beschrijving van wat een business model is: het business model beschrijft de manier waarop een bureau of organisatie waarde creëert, levert en ten gelde maakt. Simpel gezegd: hoe een bureau of organisatie zijn activiteiten heeft georganiseerd en de klanten of opdrachtgevers van dienst is. Het businessmodel is simpelweg te definiëren met vier vragen: wie zijn je beoogde klanten/opdrachtgevers, wat bied je je klanten aan (waardepropositie), hoe produceren je het aanbod en waarom levert het winst op (verdienmodel)?)

**Onderdeel B**

Uitleggen onderdeel B: ik ga vragen stellen per onderdeel van het business model (de vier onderdelen) en zij vullen het met stiften in.
1. **De waarde propositie**  
   De waarde propositie is een beschrijving van het assortiment aan producten en diensten die jullie als bureau aanbieden.  

   Wat willen jullie de klant aanbieden? (bijv. Innovatieve ontwerpen, duurzame ontwerpen, etc.)  
   a. Welk probleem van de klant helpen jullie oplossen?  
   b. In welke klantbehoeften voorzien jullie?  
   c. In welke werkzaamheden heb je geen interesse?

2. **De klant**  
   De klant is de opdrachtgever. Aangezien de klant het belangrijkste aspect is voor een bureau om te overleven, is het belangrijk om de verschillende groepen mensen of organisaties te specificeren die jullie als bureau wil bereiken en aanspreken. Een klantsegment is een type opdrachtgever (bijv. private opdrachtgevers die duurzame woningen willen, bedrijven die kantoor interieur willen → heel specifiek. Kunnen ook richten op grotere groepen: overheid, bedrijfsleven, etc. Maar beter is nog specifieker).  

   Voor wie creëren jullie waarde?  
   a. Waarop focussen jullie? Behouden van dezelfde klanten, nieuwe klanten, meer omzet per klant, hogere koopfrequentie?  
   b. Hoe bereiken jullie de klanten?  
   c. Welke formele afspraken moeten er gemaakt worden? Welke informele aspecten moeten er geregeld worden?

3. **De middelen**  
   Omschrijving van jullie belangrijkste activiteiten om succesvol te kunnen functioneren. Dit zijn bijvoorbeeld het ontwerpen, visiepresentaties maken, oplossen van problemen, netwerken, platformonderhoud, voorstellen schrijven, administratie, enz.  

   Vervolgens is het belangrijk te specificeren met welke middelen jullie dit doen. De middelen zijn de fysieke, financiële, intellectuele en/of menselijke ‘tools’ die het mogelijk maken een bureau om jullie waarde propositie te realiseren en deze op de markt te brengen.  

   Ook het definiëren van de belangrijkste samenwerkingsverbanden valt hieronder. Deze samenwerkingsverbanden omvatten het netwerk van leveranciers en partners die nodig zijn om het bedrijfsmodel te laten werken. Dit zijn bijvoorbeeld andere deskundigen of leveranciers die activiteiten uitvoeren die niet mogelijk om door jullie zelf te leveren, maar wel nodig zijn om het eindproduct of de dienst te creëren (denk aan renderingen, financiële ondersteuning, juridische ondersteuning, maquette, bouwtechnische tekeningen, etc.)

   Welke middelen vereisen jullie waarde propositie? (fysiek, intellectueel, werknemers, financieel)  
   a. Welke kernactiviteiten vereisen jullie waarde propositie? (productie, probleemoplossing, platform/netwerk)  
   b. Wat voor soort partners heb je nodig? (visualisatie bureaus, maquette bouwers, juristen, bouwadviseurs?)
c. Welke kernactiviteiten voeren jullie partners uit?
   (visualisatie bureaus, maquette bouwers, juristen, bouwadviseurs)

4. De kosten en inkomsten
De kosten van het bureau moeten altijd zoveel geminimaliseerd worden, maar sommige business models richten zich op een meer kosten gedreven structuur en anderen voor een meer waarde gedreven structuur.
De inkomstenstroom is het contante bedrag dat een bureau genereert van elke opdrachtgever. Het is belangrijk om te definiëren voor welke waarde de klant echt bereid is te betalen en voor op wat voor manier de beste is (bijv. particuliere opdrachtgevers prefereren uurtarief en bedrijven liever honorarium).

Voor welke producten of services zijn jullie klanten echt bereid te betalen? (visie, tekeningen of total package)
   a. Voor wat betalen ze op dit moment?
   b. Hoe betalen ze op dit moment? Hoe zouden ze het liefst betalen?
   c. Zijn jullie kosten gestuurd (bijv. minimaliseren) of waarde gestuurd (waarde creatie)?
   d. Welke middelen zijn het duurst? Welke kernactiviteiten zijn het duurst?
   e. Wat zijn de belangrijkste kosten van jullie business model?

Afsluiting
1. Afronding;
2. Vragen bewustwordingsproces tijdens sessie en over of het business model canvas hen wel/niet geholpen heeft en welke aspecten daar een cruciale rol in spelen;
3. Informatie over terugkoppeling, contact opnemen bij vragen/opmerkingen en bedanken.
### Appendix D: Case study business model poster

<table>
<thead>
<tr>
<th>Klant</th>
<th>Waarde propositie</th>
<th>Activiteiten, middelen en partners</th>
<th>Kosten en inkomsten</th>
</tr>
</thead>
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