Self-employment profiles in Southwest-Frisia

Master thesis Economic Geography
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Acknowledgements

Writing a thesis takes a lot of work and time. Before starting one it is very easy to underestimate the amount of work that goes into making one. I can confess that I had this problem too. While writing my thesis I also started my second master, Socio-Spatial Planning. Although I like both masters a lot, writing a thesis for one master while following courses for another master can be difficult. Writing a thesis takes time and asks for a focus on the topic. When you are also busy doing courses that are not related to Economic Geography your mind can easily drift away from the topic. Nonetheless, doing two masters also has great benefits for someone with a broad interest like me.

This research is a case study on Southwest-Frisia. Being born and raised in Frisia, it was nice to research this area. Although I'm from another part of the province, I am well known with Southwest-Frisia. The idyllic villages surrounded by lakes and countryside are typically Frisian. In this research, I look at the influence of this attractive landscape on self-employment. Having been to the region many times, I took great interest in examining this.

I would like to thank my supervisor Dr. Sierdjan Koster for helping me throughout my research. His feedbacks helped me create the research that lies in front of you today.

Jorrit Kootstra

Summary

An increasing number of Dutch workers enter self-employment. One of the regions where self-employment is especially large is Southwest-Frisia; a rural region located in the north of the Netherlands. Besides the high share of self-employed, Southwest-Frisia has another interesting characteristic; an attractive residential climate. The region has, according to research, the best residential climate in the Netherlands.

All self-employed have different characteristics. Various self-employment types or profiles are expected to have different motivations and aspirations. In this research, we focus on how self-employed belonging to various self-employment profiles respond differently to the residential climate in Southwest-Frisia. The literature suggests that an attractive residential area attract footloose self-employed. These are self-employed that are pulled towards attractive areas because they favour living in these places, not because of the economic opportunities they offer. Although this hypothesis has been made, no research has been done about this. This research will look at the self-employed and classify them into different profiles according to their motivations. These profiles form the results of this research. For each profile, the influence of the residential climate has been discussed. This method allows us to, in-depth, examine how the residential climate influenced different types of self-employed instead of taking all self-employed into account at once.

In the end, four different self-employment profiles have been identified, using statistical analysis on survey data. These four profiles are, ranked according to their size; (i) average/passive self-employed, (ii) young entrepreneurial locals, (iii) footloose self-employed and (iv) necessity self-employed. These profiles are used as a means to identify how these different groups of self-employed respond to the residential climate. Identifying different self-employment profiles and their composition helps policymakers. Different self-employment profiles have different motivations and aspirations. Knowing these motivations and aspirations, policymakers can adjust their policy to them. Connecting this to the residential climate, the composition of the profile tells something about how the residential climate influenced the actions of the self-employed. Especially the profile of footloose self-employed are of interest for this research. These are self-employed that are brought up outside Frisia and migrated to the region because of the attractive residential area. The presence of this group confirms the hypothesis that the attractive residential area pulls self-employed towards the region. Another profile of special interests are the young entrepreneurial locals. These are workers that entered self-employed out of social motives and they are mostly from the region. This group indicates that the footloose self-employed that migrated to Southwest-Frisia have created an entrepreneurial climate that encouraged locals to enter self-employment as well. Interesting is that this group displays the highest aspirations among all profiles, indicating the young entrepreneurial locals can have a large economical impact on the region. So, the residential climate in Southwest-Frisia attracted footloose self-employed that created an entrepreneurial climate which stimulated locals to enter self-employment. Especially these locals have high growth ambitions. This indicates that the residential climate is a strong asset of the region.

1. Introduction

Why is it meaningful to research how different self-employed respond to an attractive residential climate? Self-employment is on the rise in the Netherlands. More people are starting their own business and although self-employment is a clear concept, individuals entering self-employment are entirely different. Every self-employed has other incentives to become one and has different aspirations. Additionally, there are other factors at play that influence self-employment, the residential climate being one of them. It is believed that a high residential climate, such as in the case study region Southwest-Frisia, attracts self-employed that value the residential climate over that the economic characteristics of the region. Taken into account the self-employed are a heterogeneous group we expect that this influence of the residential climate differs among self-employed. Every worker has different motivations and aspirations, which influences their self-employment profile and the economic impact they have on a region.

This research is a case study that builds upon the results of a survey. Because the residential climate is a very specific regional characteristic it is meaningful to use a case study. The case has been carefully selected because of its high self-employment share and attractive residential climate. As self-employed are mobile they may respond to living conditions. This would mean that some regions, with an attractive residential climate, could attract footloose self-employed. This research will identify different profiles of self-employed. When we have established these profiles and their composition we can examine how the diverse the self-employed respond to the residential climate.

1.1. Self-employment

First, we will discuss what we consider a self-employed. According to the OECD (2018a), self-employed are people whose primary activity is self-employment and do not employ others. Being part of the small and medium enterprises (hereafter SME), self-employed are seen as economically important and a key contributor to innovation (European Commission, 2018; OECD, 2017a).

The Netherlands has an exceptionally high share of self-employed. Furthermore, the share of self-employed in the Netherlands is growing faster than in other European countries (Figures 1 & 2). Interestingly, not every country in the EU is experiencing similar growth. Some countries see a large decline in self-employment (Weistra, 2016). The high share and growth of self-employed in the Netherlands naturally have consequences.
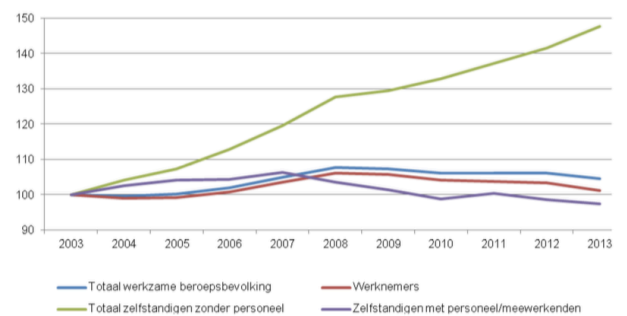

Figure 1 | Dutch employment changes* (Weistra, 2016)
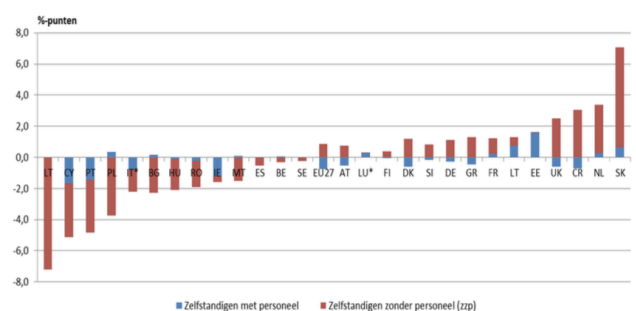*Green line is total self-employment

Figure 2 | European self-employment changes* (Weistra, 2016)
* Red is self-employment

The hard-working, motivated SME entrepreneurs are often mentioned as the driving force behind the Dutch economy, likewise self-employed are said to be the seed-corn to future prosperity (Kamp,2014; Bögenhold and Staber, 1991). Hence, the OECD (2017) mentions it as the third indicator in the Entrepreneurship Indicators Programme, after new enterprise creations and bankruptcies. Although self-employment is often associated with entrepreneurship, one might question if this is correct. Undoubtedly, not every self-employed is an entrepreneur. Many scholars differentiate between necessity and entrepreneurial- or opportunity-driven self-employment. Entrepreneurial relating to the aspirations of the self-employed, and the opportunity to the motivations of the self-employed. In chapter two these profiles and their characteristics will be further discussed.

Self-employment can emerge out of a lack of job opportunities or self-employed can be passive followers instead of entrepreneurial-driven (Santarelli &Vivarelli, 2007; Faggio & Silva, 2014). Not only is self-employment heterogeneous, but different profiles of self-employment also appear to have specific geographical distributions. Faggio and Silva (2014) have stated that self-employment is positively and significantly correlated with both the rate of firm creation and the incidence of innovation in urban areas, however, they conclude this is not the case for rural areas.
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1.2 Different self-employment profiles

Self-employment profiles are used as a means to study how different self-employed respond to the residential climate, giving them a vital part in this research. Every individual self-employed is different. Hence, it is relevant to examine the composition of self-employment profiles in a region. Knowing which profiles are evident in a region can help policymakers to better suit their policy to the needs of the different self-employed. There is much literature available on self-employment, which can be seen as an advantage, nevertheless, this also brings implications. Allmendinger (2017) argues in his book that an abundance of research allows planners and policymakers to pick and mix theories that justify their actions or approach. Practicing planners find the diversity and abundance of theory an advantage since it allows them to choose the theory that suits their ideas. This allows for different contradicting views on self-employed to exist at the same time. An example where the abundance of theories plays a role is the difference between necessity and entrepreneurial self-employment in rural regions. Research suggests that both types of self-employment are apparent in rural regions (Faggio & Silva, 2014; Koveos, 2016; Santarelli & Vivarelli, 2007). Nonetheless, because entrepreneurial self-employment is perceived as more favourable, rural regions often focus on entrepreneurial self-employment in their policy-making (E&E advies, 2012; Niedomyslet al., 2018). By the same token, some theories suggest stimulating self-employment, also in rural areas, would lead to more prosperity (Kempson & White, 2001). Per contra, taking the aforementioned findings of Faggio and Silva (2014) into account, stimulating self-employed in rural areas might not be very effective in reaching cohesion between regions.

To solve these issues this research focusses on the real profiles of the self-employed are, according to their motivations and answers to a survey. This research will not take predefined profiles into account for the composition of the different profiles. Instead, statistical analysis is used to identify self-employment profiles that are truly evident in the case study region.

1.3 Southwest-Frisia

This research is a case study of the COROP region Southwest-Frisia. This region is characterised by a high self-employment share. In 2015 the self-employment share was 12,9%, which is high compared to the whole of Frisia (10,8%) and the Netherlands (9,8%) (CBS, 2015a; CBS, 2015b). These numbers become even more interesting when comparing the municipality of Southwest-Frisia to the four largest cities in the Netherlands. Only Amsterdam has a higher self-employment share (15%) than the municipality of Southwest-Frisia (14%) (ABN Amro, 2018).

Apart from the high self-employment share, two other characteristics make Southwest-Frisia a suitable case for this research. First, Southwest-Frisia has the highest perceived residential climate of the Netherlands (Figure 3) (Rabobank, 2005). The largest part of Southwest-Frisia is classified as a popular rural area (Figure 4) (Bijker and Haartsen, 2009). It is believed that the attractive residential climate pulls footloose entrepreneurs to the region. These entrepreneurs start-up their business in Southwest-Frisia allowing them to enjoy the favourable rural characteristics of the area, rather than living in a busy city. Although theories about the effect of the rural idyll in popular rural areas suggest this might happen, no conclusive research has been done about this.
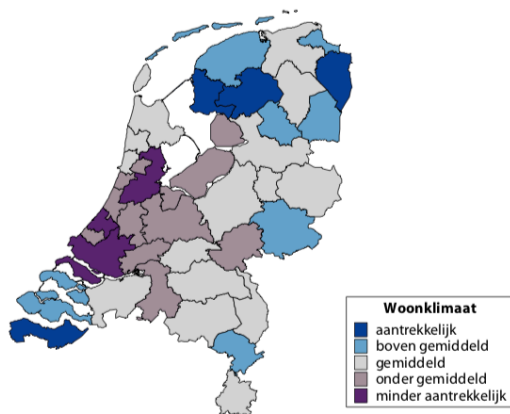
Figure 3 | Perceived residential climate* (Rabobank, 2005)
* blue = attractive, purple = less attractive
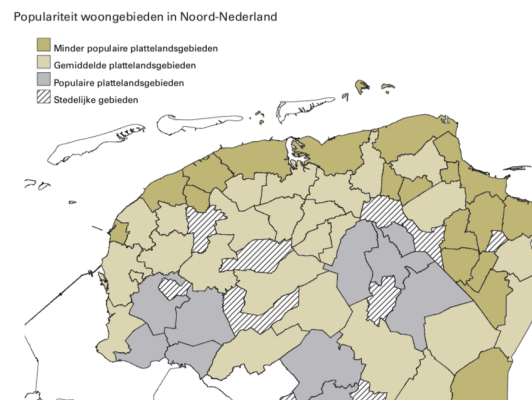
Figure 4 | Popular rural areas in the north of the Netherlands* (Bijker & Haartsen, 2009)
* grey = popular, green = non-popular

Second, Southwest-Frisia is a rural region, which influences the evident self-employment profiles (Faggio & Silva, 2014). Southwest-Frisia consists of two municipalities; 'Súdwest-Fryslân' and 'de Fryske Marren'. According to Dutch measures both municipalities are classified as rural (Dutch classification; Weinig Stedelijk) (SER, 2005; CBS, 2017a). Although, in European and global context, the region is regarded as intermediate and not rural (SER, 2005; Eurostat, 2018). Nonetheless, this research will consider the region as rural, according to the Dutch context. The Dutch countryside is a dynamic region that is constantly changing and adapting to national and international trends. The most recent challenge for rural areas is a declining population (PBL, 2010; Bijker, 2013). Since the sixties, the Dutch countryside is coping with a population decline and a decline in amenities (E&E Advies, 2012). This causes challenges to which self-employment could offer solutions. The Dutch Environmental Assessment Agency (2010) (Hereafter, PBL) for example sees opportunities for the re-use of vacant buildings, such as closed-down farms. They affirm that around 15% of these vacant farms are already used as a business location, mostly by footloose self-employed (PBL, 2010).

1.4 Research question

This research studies how self-employed belonging to different self-employment profiles respond to the attractive residential climate in Southwest-Frisia. Oftentimes the concept of self-employment is related to entrepreneurship (OECD, 2017a). However, the literature suggests that not every self-employed can be considered an entrepreneur. This statement is considered even more applicable to rural areas. Interestingly, regional policy in the Netherlands still focusses on strengthening regional growth via self-employment. Research reasoning that self-employment in rural areas arises out of a lack of job opportunities, and thus doesn't have entrepreneurial characteristics, is opposed by research explaining that footloose entrepreneurs move to popular rural areas to start-up their businesses. These inconsistent and even contradicting views are the basis for this research. This research will focus on the various profiles of self-employment. Via primary data analyses, different self-employment profiles and their response to the residential location will be distinguished. We will do this in order to achieve the research objective, which is to find out how the residential climate influences different self-employment profiles in Southwest-Frisia.

The profiles of the self-employed in Southwest-Frisia will be identified according to the results of a survey among self-employed in Southwest-Frisia. This will enable the research to be focused on the real characteristics and motivations of the self-employed in the region, instead of solely focusing on datasets.

The following research question is central to this research:

"How do different self-employment profiles in Southwest-Frisia respond to the residential climate?"
This question will be answered using multiple sub-questions which implement the determinants stated above. The sub-questions are the following:

"What are the characteristics of different types of self-employment profiles? And, how do the motivations and aspirations differ among these profiles?"
Before we can identify self-employment profiles in Southwest-Frisia, general characteristics of different self-employment profiles must be identified to create a basis for the analysis. Considering this research focusses on how different self-employed respond to the residential climate, we examine a broad spectrum of self-employment profiles.

"What are the self-employment profiles in Southwest-Frisia, and how are the different profiles distributed?"
This questions looks at the self-employment profiles in Southwest-Frisia. By examining the different clusters that are derived from statistical analysis we can identify and label each profile. Subsequently, we can look at the composition of the self-employment profiles.

"What is the influence of the attractive residential climate on the self-employment profiles in Southwest-Frisia?"
This question aims to examine what the influence of the attractive residential climate is on self-employment in Southwest-Frisia in general and on the specific self-employment profiles

1.5 Reading guide

To answer the research questions, this research will take the following steps. In chapter 2, different types of self-employed and their characteristics are examined. Additionally, the importance of the residential climate and how the residential climate can influence self-employment are discussed. This information is used later in the research to help identify the self-employment profiles. In chapter 3, self-employment trends and demographic characteristics of self-employed are described and examined. These trends and characteristics are used to interpret the different self-employment profiles that are identified by the statistical analysis. In chapter 4, the methodology of this research will be elaborated. In chapter 5, the case study region Southwest-Frisia is analysed. Here we will apply the literate and theories of chapters 2 and 3 to the case study region. This provides a better understanding and a theoretical basis for what types of self-employment are expected in Southwest-Frisia. Additionally, this chapter elaborates on the characteristics of the residential climate in Southwest-Frisia, focussing on the effects these characteristics would have on self-employment according to the literature. In chapter 6 the self-employment profiles in Southwest-Frisia are identified and interpreted. Here, the statistical analysis and the theoretical basis of chapters 2, 3 and 5 are linked together. In chapter 7 the conclusions of the research and the discussion are given.

2. Self-employment profiles and residential climate

In this chapter the key characteristics of various types of self-employment are discussed, creating a theoretical basis for this research. Additionally, the residential climate and which influences it can have on self-employment are elaborated. Both the various types of self-employment and the residential climate are key concepts in this research, hence these concepts are discussed first. The theories and knowledge provided in this chapter are used to form the basis for the survey questions, and the identification and interpretation of self-employment profiles further in this research.

2.1. Defining self-employment

The first step is to define what this research considers a self-employed and which general types can be differentiated. Self-employment is usually differentiated between two profiles; necessity self-employed and opportunity or entrepreneurial self-employed. Both are fundamentally different and occupy different professions. A necessity self-employed is oftentimes a worker with limited chances to succeed as wage-employee in the labor market and, therefore, enters self-employment (Bögenhold and Staber, 1991; OECD, 2009). On the other end, there are opportunity-driven self-employed. These are workers who have an entrepreneurial spirit and a desire to be one's boss, they become self-employed because they see opportunities in their business ideas (Bögenhold and Staber, 1991; OECD, 2009). These two different self-employment profiles will be extensively examined in the succeeding sections (2.2 and 2.3)

Globally, the share of self-employment tends to be highest in countries with a low income per capita, and lower in countries with a higher income per capita (OECD, 2009). Due to increased global prosperity, the global share of self-employment is decreasing. However, some countries experience an increase in self-employment, including the Netherlands. The overall decline in self-employment is mainly due to a decline in necessity self-employment, mostly in developing countries with a low income per capita (Bögenhold and Staber, 1991). Interestingly, countries that experience growth in self-employment do not solely see growth in entrepreneurial self-employment, but also necessity self-employment. Especially during a crisis the share of necessity self-employment tends to increase, which could be the reason for the recent self-employment growth in the Netherlands (Bögenhold and Staber, 1991). Bögenhold and Staber (1991) state that unemployed and persons with more unemployment experience are more likely to enter self-employment, hence, self-employment is likely to grow during a crisis. This view is empirically supported by Evans and Leighton (1989) who executed a cross-sectional study about self-employment among young men in the USA. Although both articles

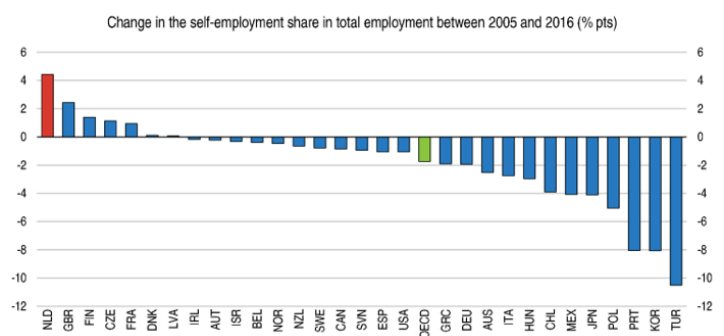Change in the self-employment share in total employment between 2005 and 2016 (% pts)

Figure 5 | Change in self-employment share between 2005 and 2016 (OECD, 2018b)

are rather dated, their conclusions are still applicable (Radar+, 2018).

The Netherlands has undergone the largest rise in self-employment of all OECD countries (figure 5) (OECD, 2018b). This self-employment growth started to take-off after the beginning of the economic crisis of 2008. The growth of the Dutch self-employment share is exceptional, especially when taking into account that all other types of employment have decreased in the same time span. Looking closer at the characteristics of those

Figure 6 | Age composition Dutch self-employed (OECD, 2018b)

who become self-employed, we see that an increasing share of elderly workers, aged between 55 and 75, is entering self-employment (Figure 6). Further, we see that there is a delay between the start of the crisis in 2008 and the rise of self-employment which starts to grow after 2012. The same delay is apparent when looking at unemployment rates, which also started to increase substantially after 2012 (DNB, 2017). Combining literature and recent data on self-employment, it is assumable that there is a connection between the crisis of 2008 and the growth of self-employment in the Netherlands.

2.2. Necessity self-employment

The first of the two general self-employment profiles, derived from the literature, is necessity self-employment. Necessity self-employment is obtaining more attention as the potential negative effects of self-employment are becoming evident (Ministry of Economic Affairs, 2014; OECD, 2017a; NOS, 2019). Necessity self-employed often work in the bottom range of self-employment occupations, they operate in professions like; couriers, white-van drivers and seasonal agricultural workers (Lomax, 2017). A number of them work for a sole employer in a fictitious self-employment capacity (Lomax, 2017). They are considered false self-employed, which we will talk about in the following sub-chapter. Necessity self-employed are commonly referred to as persons with low skills and a low chance to find wage-employment. Additionally, these self-employed are more financially-driven than their entrepreneurial counterparts (Block and Sandner, 2007). As discussed in the previous section (2.1) the share of necessity self-employment is most likely to grow during a crisis, when unemployment is high. Likewise, during the crisis of 2008, a rise in unemployment created a loose labor market. Job loss is strongly associated with entry into self-employment, particularly in less desirable forms of self-employment, characterised as necessity self-employment (Moulton & Scott, 2016). Workers who lost their jobs were not able to find a new job in wage-employment, forcing them to start-up their own business. This phenomenon is called the refugee effect. This effect suggests that the decision to enter self-employment is a response to either being unemployed or the perception of dismal (Thurik et al., 2008).

Thurik et al. acknowledge there are counterarguments to this theory. The most noticeable being that unemployed tend to possess lower endowments of the human capital and entrepreneurial talent needed to start and sustain a new firm. Nonetheless, data on self-employment suggest that the refugee effect played a role in the growth of self-employed in the Netherlands.

Results of a survey regarding self-employment (Dutch, Zelfstandingen Enquête Arbeid voor 2012) conclude that; (i) 12% of the respondents became self-employed because they couldn't find wage-employment, (ii) 9% became self-employed because they were fired and (iii) 3% was forced to become self-employed by their employer, so-called false self-employment (Rabobank, 2014).

Considering necessity self-employed are pushed towards self-employment and often do not want to start-up their own business, some argue that they are hidden unemployed (Rabobank, 2014). They are hidden unemployed as they would preferably work in wage-employment or work more hours. These people fall under the definition of self-employed, but could practically be unemployed. Furthermore, before self-employment companies go bankrupt, there is a period in which the company still exists although they do not have any work (Kbo-pcob, 2018). Of all workers who start-up their business in the Netherlands, half of them have stopped after three years. In particular the elderly self-employed are dealing with bankruptcies. Most of them fail because they lack knowledge about the acquisition, not about particular skills for their job (Volkskrant, 2014; Kbo-pcob, 2018). The fact that the elderly are facing with problems more often is essential considering the share of elderly self-employed is growing. Besides, it is worth mentioning that 10% of the self-employed in the Netherlands earns less than the social security payment (Dutch; bijstandsniveau) strengthening the argument of hidden unemployment. Nevertheless, labor economist Ronald Dekker from the University of Tilburg disagrees with the statement that a considerable share of self-employed consists of hidden unemployed. He argues that someone who has a job is not unemployed, regardless of the circumstances (Volkskrant, 2014).

False self-employment

During the crisis of 2008 an interesting growth of another self-employment type has occurred, the growth of false self-employment (Rabobank, 2014). The terminology of this type of self-employment varies widely between studies. To avoid confusion this research will adhere to the term false self-employment. False self-employment is not purely necessity driven, nonetheless, it is related to necessity self-employment. False self-employment consists of workers who work for companies that dismiss their employees and then ask them to work for them in self-employment, project-based capacity, reducing their 'fixed' costs (Lomax, 2017). Kautonen et al. (2009) distinguish two elements of false self-employment; (i) involuntariness, focussing on negative push motives to start-up a business with the self-employed being reluctant of self-employment, and (ii) quasi self-employment, referring to the legal and economic aspects of operating in the grey area between an employment relationship and self-employment. Combining the two elements, false self-employed are characterised as individuals who have been "pushed" by the employer's initiative (involuntariness) into precarious working arrangements which are neither employment relationships nor "real" self-employment (quasi self-employment).

False self-employment has negative effects on employees, the most salient being that false self-employed experience the negative effects of self-employment. Yet, they do not experience the positive effects, reckoning they do not receive the social security benefits of the welfare state to the same extent as wage-employers (Dekker, 2010). Besides, false self-employed are not released from many of the shackles of wage-employment, like flexibility and working without instructions from above (Lomax, 2017; OECD, 2017b). On the other hand, employers do experience the positive effects of self-employment.

Employers prefer false self-employment arrangements on account of them being much more flexible by avoiding the costs, obligations, and responsibilities related to employment relationships (Kautonen et al., 2009). This type of self-employment is not to be encouraged, and governments are negative about it.

False self-employment consists of a large group of vulnerable persons that become even more vulnerable as they cannot rely on the social benefits of the welfare state. Fighting false self-employment is hard considering little is known about it and they cannot easily be diversified from regular self-employed (Dekker, 2010; Kautonen et al., 2009). Nonetheless, governments try to minimise false self-employment in three ways: (i) clarify work status (i.e., clarify who are employees and who are self-employed), (ii) introduce intermediate work categories that treat false self-employment separately and (iii) improve access to social security for the self-employed. In practice, governments tend to take a multi-pronged approach to fight false self-employment, as well as using measures to make it more attractive for employers to hire an employee over a false self-employed worker. A method that is currently used in the Netherlands is to fight false self-employment via the court system. Recently (January 2019) the court in the Netherlands decided that deliverers working for the company Deliveroo were not allowed to work for the company under a self-employment contract anymore. The lawsuit was filed by a large Dutch labour union (FNV) that hopes this specific court decision will cause a larger change in false self-employment, especially in the delivery services (NOS, 2019). Moreover, the lawsuit resulted in more political pressure for the minister to be more active in battling false self-employment.

Passive self-employment

In this part, we will shift from the motivations for becoming self-employed to the aspirations of the self-employed. Whereas necessity factors are motivations to become self-employed, a lack of ambition to innovate is about the aspirations of the self-employed. Passive self-employed are workers who are self-employed without any entrepreneurial intentions, hence they do not intend to grow or innovate (Santarelli &Vivarelli, 2007; Faggio & Silva, 2014). Passive self-employment is hard to measure as one needs to look closely at the aspirations of a self-employed, something which is subjective. Passive self-employment probably covers a large share of self-employed, including necessity and false self-employed.

Faggio and Silva (2014) distinguish between 'innovative' and 'replicative' self-employed. They suggest that only innovative self-employed are key to an economy's long-run success by supplying new ideas. Conversely, replicative self-employed predominantly respond to local demand and growing population and are therefore symptoms of a growing economy rather than causes. Hurst and Pugsley (2010) show that the vast majority of US small businesses do not innovate, do not want to innovate, do not significantly grow in size and do not want to expand. This supports the notion that a large share of self-employed can be characterised as passive self-employed. Although these self-employed do not contribute to long-term economic success, as stated by Faggio and Silva (2014), they are still of importance to the economy of a region. As aforementioned, the hard-working, motivated SME entrepreneurs are the driving force behind the Dutch economy (Kamp,2014). The self-employed, passive or not, are active in a local community and thus contribute to it.

Passive self-employment is a broad term and includes many self-employed. As discussed in the previous paragraph some passive self-employed, like the false self-employed, need help from institutions to fight for their rights. It is key to look at the needs of different passive self-employed to make a policy that fits their needs best.

Conclusion

To sum up, from the paragraph above we can distinguish some key motivational and aspirational characteristics of necessity self-employment. First, taken their motives into account, we can conclude that necessity self-employed are more financially driven, as they often become self-employed because they cannot obtain wage-employment. Hence, money is more important to them than a drive to become self-employed. This process is called the refugee effect. Next to their motivations, necessity self-employed have specific aspirations, or actually a lack of aspirations. Because they are mostly financially driven, they have less drive to undertake risky behaviour, such as innovation. Hence, necessity self-employed often have low aspirations.

2.3. Entrepreneurial and opportunity self-employment

The second general self-employment profile, that can be derived from literature, consists of entrepreneurial or opportunity self-employed. This profile is often viewed as the opposite of necessity self-employed. Opportunity self-employed become self-employed because they want to and necessity self-employed because they have to. Entrepreneurial characteristics are about the aspirations of the self-employed and opportunity characteristics are about the motivations of the self-employed. In this research, the general profile regarding these motivations and aspirations is called entrepreneurial self-employment. In this chapter, we will first discuss what entrepreneurship entails, where after we will examine entrepreneurial and opportunity-driven self-employment.

Entrepreneurship and its importance

While it has become widely acknowledged that entrepreneurship is a vital force in the economy, there is little consensus on what constitutes entrepreneurial activity (Audrechts & Keilbach, 2004). One of the key reasons for the absence of a clear definition of entrepreneurship lies in the fact that it is a multidimensional concept, meaning the definition is dependent on the perspective and emphasis of the user of the concept (Audrechts & Keilbach, 2004; Faggio & Silva, 2014). The most prevalent and compelling views on entrepreneurship focus on the perception of new economic opportunities and the subsequent introduction of new ideas into the market. Just as entrepreneurs are agents of change, entrepreneurship is about the process of change (Gartner & Carter, 2003). The focus of entrepreneurs on new economic opportunities allows them to be viewed as disrupters (Koveos, 2016). This is the reason why entrepreneurs are seen as key in creating solutions for societal changes, such as; good care for the elderly, a transition to renewable energy and clean drinking water for a growing world population (Kamp, 2014). Moreover, entrepreneurs are vital for economic growth. Especially young entrepreneurs intend to increase their workforce in the coming years. This leads to a tremendous increase in the aggregate workforce (nearly 10%), confirming the importance of entrepreneurs (Koveos, 2016).

Taken the above into account, this research defines entrepreneurs as disrupters of the market by bringing new innovative ideas leading to economic growth. Recognising the importance of entrepreneurs in today's economy, the subsequent question is who these entrepreneurs are.

This question faces the same issues as defining an entrepreneurial activity since they are of the same multidimensional nature. Entrepreneurship is frequently related to start-ups. Audrechts and Keilbach (2004) state that entrepreneurship involves the start-up and growth of new enterprises. Hence, they use the number of start-ups as the basis of their research. They are not alone in their emphasis on start-ups as a measure for entrepreneurship, Koster and Hans (2016) and OECD (2008) all concentrate on start-ups as well. Yet, start-ups are not the only factor used to calculate entrepreneurship. Self-employment is in a like manner viewed as a key indicator for entrepreneurship (Ruef & Lounsbury, 2007; Fairlie, 2005; Parker, 2009). The rationale for using self-employment as a measure of entrepreneurship is that self-employment is a risk-taking activity. Self-employed do not have an employer and own their own business, making it a risky undertaking (Parker, 2009). A practical benefit of using self-employment as a measure of entrepreneurship is that it is widely measured at a variety of scales, allowing international and interregional comparisons. These comparisons are useful to examine the competitiveness of a region.

Nonetheless, there are some problems with the usage of self-employment as a measurement for entrepreneurship. The most prevalent argument is that self-employed can include individuals who are unlikely to be entrepreneurs by other criteria. This statement is also a cornerstone for this research. Additionally, self-employment fails to capture many nascent entrepreneurs. Despite these problems, Parker (2009) still sees self-employment as a valuable indicator of entrepreneurship, although he admits some refinements in the definition need to be made.

Opportunity and entrepreneurial self-employment

Although entrepreneurship is connected to the opportunity self-employed, both concepts are different. Self-employed that are opportunity-driven enter self-employment because they see an opportunity in it for them. The attraction of opportunity self-employment is that it releases you from many of the shackles of wage-employment. Theoretically, self-employment allows you to work; (i) when you want, (ii) where you want, (iii) how much you want, and (iv) without instructions from above (Lomax, 2017). This motivates opportunity-driven self-employed to start their own business. Opportunity driven self-employed can have entrepreneurial aspirations, but this does not have to be the case. Entrepreneurship is about the aspirations of the self-employed, with entrepreneurs having high aspirations. If there are many entrepreneurs in a region this can lead to economic growth.

Entrepreneurial self-employed usually own small enterprises that are credited with providing specialised goods and services (Audrechts & Keilbach, 2004). Most of them operate in middle or top scale occupations (Lomax, 2017). These entrepreneurs generate productivity gains from dynamic entry and exit that spurs economic development. This is caused by selection and competition. Selection involves replacing incumbents who are inefficient or do not satisfy consumer demand by entrants who are more efficient or better meet demand by offering new or better-quality products. Entrants intensify competition and discipline incumbents to provide cheaper or more innovative goods (Parker, 2009).

Moreover, competition leads to a competition of ideas, making only the best ideas survive creating more diversity (Audrechts & Keilbach, 2004). The motivations for becoming self-employed differ between entrepreneurial self-employed and necessity self-employed.

Taken the above into account it is unsurprising that policymakers give substantial attention to stimulate and promote self-employment (Faggio & Silva, 2014). Particular emphasis is put on promoting entrepreneurship in rural lagging regions as a way of 'closing the gap' with dynamic urban regions. Yet, there are competing ideas about the effect self-employment has in rural regions, ranging from positive to negative. Faggio and Silva (2014) state that these entrepreneurial self-employed are positively and significantly correlated with both the rate of firm creation and the incidence of innovation in urban areas. However, this is not the case for rural areas. The distinction between urban and rural regions is not explained by the sectoral composition of businesses, being that both urban and rural areas show the same sectorial composition. Thus, the distinction lies in other factors, the most important being risk-taking behaviour of self-employed (Faggio & Silva, 2014). Nonetheless, one needs to keep in mind that Faggio and Silva their research is based on Britain, which has different rural dynamics than the Netherlands.

A more positive trend for rural self-employment, relating to entrepreneurial self-employment, is that in recent years the division between living and working has become smaller, creating opportunities for the rural areas (PBL, 2010). People increasingly perceive their house and residential climate more important than the closeness of amenities (PBL, 2010). Therefore, the Dutch Council for Rural Areas (Dutch; Raad Voor het Landelijk Gebied) suggests rural areas should focus on developing tourism and working-landscapes, where working and recreation are in balance (RLG, 2009). Attractive landscapes in rural areas, like Southwest-Frisia, could attract footloose self-employed with entrepreneurial characteristics (Bijker & Haarten, 2009; PBL 2010).

Risk taking

A fundamental component of self-employment is taking risks. Taking risks creates uncertainty, taken into account multiple aspects of self-employment that could result in negative outcomes for the self-employed. First, self-employment brings no regular pay-check at the end of the month, causing budget-planning to be difficult. Second, work doesn't come to you, instead, self-employed have to go and get it via acquisition. Third, self-employed experience little social protection since this is designed for wage-employment, not self-employment (Lomax, 2017). These three characteristics of self-employment are seen as a risk (Faggio & Silva, 2014). These potential negative components of self-employment are risks that the self-employed need to take. Self-employment is inherently more risky than wage-employment, so risk-averse tend to avoid self-employment (Hout and Rosen, 1999). Necessity self-employed might see the risks as obstacles for becoming self-employed, however, the opportunity self-employed hold different views on this. They perceive the risks as opportunities. Dekker (2010) examines how self-employed perceive their risks and concludes that; *"[self-employed] are more individually oriented than the rest of the population. Individual responsibility and effort are distinguishing characteristics."* (Dekker, 2010). This shows that opportunity self-employed are aware of the risks, but see them as their responsibility that can be overcome by putting effort into, which implicitly means they have trust their business will succeed. On the other hand, Dekker (2010) differentiates pseudo-self-employed who are more vulnerable and want to develop collective strategies to cover risks.

This distinction relates to the opportunity self-employed, who are willing to take the risks, on one hand, and necessity self-employed, who are in favour of collective risk strategies, on the other hand. The reason opportunity self-employed care less about the risks is that more risks also bring more profit. They believe in their ideas and believe they will succeed, hence, risks are positive.

Self-employed are aware of the risks they take when entering self-employment. Dekker (2010) mentions that almost all self-employed feel the risk. However, the magnitude of the perceived risk differs among sectors. Self-employed working in knowledge-intensive sectors, like ICT, perceive lower risks than self-employed working in more labor-intensive sectors, like construction (Dekker, 2010). Additionally, necessity and opportunity-driven self-employed have different ways of coping with risks. Self-employed working in ICT have a significantly higher wage than workers in construction. This allows the ICT self-employed to deal with the risk on an individual level, while workers in construction rely on collective strategies.

Conclusion

To sum up, in the paragraph above we can distinguish some key motivational and aspirational characteristics of entrepreneurial self-employed. Opportunity-driven self-employed see opportunity in starting their own business. They predominantly like self-employment because of the flexibility it gives and the absence of a boss. They know self-employment is a risky undertaking, but they are willing to accept this fact. Additionally, since opportunity self-employed often work in economic sectors with a higher payment, they are better able to take these risks. Looking at the aspirations, opportunity-driven self-employed often have entrepreneurial motivations. Yet, this is not necessarily the case. Having entrepreneurial aspirations means the self-employed intend to increase their business or want to innovate. If self-employed are entrepreneurs they can significantly influence the economic growth of a region. Additionally, entrepreneurs with innovative ideas can cause positive developments that go beyond the region.

2.4 Residential climate

This research investigates how self-employed respond to the attractive residential climate in Southwest-Frisia, hence it plays a vital role in this research. In the previous paragraphs different types of self-employment are discussed. These profiles are utilised as a means to examine how various self-employed respond to the residential climate in Southwest-Frisia. Each self-employment profile is expected to respond to the residential climate in various ways. To investigate this relationship, it is necessary to establish what we mean by the residential climate, specifically for rural regions like Southwest-Frisia.

Rurality and residential climate

The case for this research, Southwest-Frisia, is an attractive rural region within the Netherlands. Consequently, we will focus on the residential climate in rural areas, so we will not consider urban areas.
In this part, we will predominantly draw from research by Bijker and Haartsen (2009) on popular and non-popular rural regions in the north of the Netherlands.

They differentiate between popular, average and non-popular rural areas based on migration patterns in these rural areas. They look at how the characteristics of migrants differ between areas. They conclude popular regions attract more migrants from urban areas, as opposed to non-popular regions. According to them, popular rural regions mainly have the following characteristics:

- First, people favour semi-open sand grounds with predominantly livestock farming and a relatively high density of nature reserves. These are areas with park or savanna-like surroundings with a variation between wide views and groups of trees.
- Second, the location and connection to the urban core area are key. Areas that have a higher travel distance to urban core areas are perceived as less attractive.
- Third, the mean income in popular rural regions tends to be higher than in the non-popular rural region regions.
- Fourth, although all rural regions have a predicted absolute population decline, popular rural regions have a predicted household growth.

Not all regional characteristics mentioned above directly say something about the residential climate. Particularly characteristics three and four are causes of a high-residential climate instead of a characteristic. Nonetheless, the first and second characteristics indicate what an attractive rural region looks like. These characteristics correspond to what a popular region looks like and how it is connected to the rest of the country. If we suppose self-employed move to Southwest-Frisia because of the residential climate, both are of interest. If a region is attractive but not well connected to national networks, it will be hard for self-employed to start up their business, because they can only depend on the local market.

The first characteristic Bijker and Haartsen (2009) mention is about the physical properties of a region. Their ideas on attractive rural areas correspond to the results of the Dutch national landscape survey (Buijs et al., 2019). This is the largest survey on the Dutch landscape ever, with over 45.000 respondents. According to the survey results, the application of the rural area around one's house is significantly influenced by the physical properties of the area. The presence of birds, insects and other animals are most important. Additionally, trees and flowers also have a positive influence. On the other end, the presence of business areas and houses decreases the appreciation of the rural area (Buijs et al., 2019).

The second characteristic Bijker and Haarsten (2009) mention relates to the accessibility of a region. Self-employed that migrate to a region because of the physical properties, value the accessibility of the region. Often they want to stay connected to the regions they came from. Additionally, footloose self-employed that are attracted to popular rural regions often have a larger catchment area. Hence, they need an accessible location. If a region has better accessibility, self-employed can expand its business activities outside the region and foster. According to Redding and Venables (2002), the interaction between regions is dependent on the distance of the size of both economies. Regions that are located farther from the economic core and have a low GDP per capita have less interaction. Relating this to self-employed and their profiles, Parker (2009) mentions that entrepreneurial self-employed are more concerned with specialized services and goods, causing them to profit from an accessible location, either physical or via the internet (PBL, 2010).

Self-employment profiles and the residential climate

Necessity and entrepreneurial self-employed are expected to respond differently to the residential climate. Necessity self-employed mostly become self-employed out of monetary reasons (Block and Sandner, 2007). Whereas they might still value a good residential climate, economical location is more important to them. Additionally, necessity self-employed are less likely to migrate, as this is a risky behaviour. Overall, self-employed that are more necessity driven have a lower respondence to the residential climate. Meaning the residential climate has a low influence on their behaviour as self-employed.

On the other end, self-employed that are more entrepreneurial driven respond differently to residential climate. The literature suggests these self-employed are more willing to take risks (Dekker, 2010). Additionally, entrepreneurial driven self-employed more often work in footloose self-employment occupations. The combination of taking risks and being footloose allows them to respond to the residential climate differently than necessity driven self-employed. Entrepreneurial self-employed are expected to be more likely to migrate to regions with a higher residential climate (Bijker, 2009). This research will examine if this is the case in Southwest-Frisia.

3. Self-employment trends and characteristics

This chapter will elaborate on trends that influence various types of self-employed in different ways and characteristics that vary among different types of self-employed. This information is used to interpret the self-employment profiles in Southwest-Frisia at later stage of this research. Knowing how certain trends, like the global crisis or increased internet connectivity, influence certain types of self-employment helps to interpret the results of the survey and the statistical analysis.

3.1. Spatial trends

First, influential spatial trends at different scales are elaborated. These trends have specific influences on various self-employment profiles. Changes in the rate of self-employment in diverse countries and regions are always the result of a mixture of specific and less specific developments. This means the large global trends and small local trends influence self-employment in a region. For example, the global crisis is considered as a less specific event and the high-residential climate in a region is a specific event. This causes spatial differences in the composition and profiles of self-employed. Because they are context-dependent, these differences are evident and vary across different scales.

The focus of this research is on self-employment in a rural region with a high-residential climate. Rural regions are interconnected with other regions and are influenced by trends on various spatial scales. Therefore, an overview will be given of characteristics and trends of self-employment on three scale levels; (i) global/international, (ii) national and (iii) regional. These trends are used for the identification and interpretation of the self-employment profiles. It is to be expected that various trends have different effects on a self-employment profile. Knowing which trends are of importance and what their influence is will be used as a basis for the interpretation of the self-employment profiles.

Global and international characteristics and trends

As discussed in the defining self-employment section (2.1), there is a global decline of self-employment (OECD, 2018b). Since the effects have already been discussed we will only briefly mention this trends, as it is a key trend. The decline of self-employment can be explained by global economic growth, resulting in an overall decrease of necessity self-employment (Bögenhold and Staber, 1991). The reason for this lies in the fact that people can more easily find a job. Persons that used to be forced to become self-employed will now more often work in wage-labor.
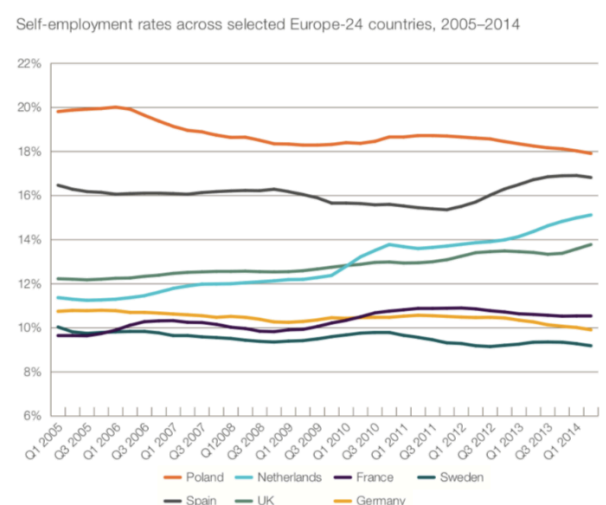

Figure 7 | Change in self-employment rates across Europe (IPPR, 2015)

This trend seems very reasonable, however, refinements must be made. As figure 7 shows, the difference in the self-employment rate varies substantially across time and countries. The Netherlands has a high self-employment rate that has grown rapidly in recent years (IPPR, 2015). Interestingly, after the crisis of 2009 different trends are visible among countries. This indicates that various countries have different strategies in using self-employment to fifth the fact of the crisis.

Besides the effect of unemployment on the self-employment rate, Bögenhold and Staber (1991) discuss the effect of increased self-employment on economic vitality. Some researchers argue that a high self-employment rate leads to employment growth and industrial dynamism since self-employed tend to increase their workforce and are more innovative (Koveos, 2016). However, Bögenhold and Staber (1991) state the empirical findings suggest the opposite. Rising rates of self-employment are more likely a reflection of labor market deficiencies than a development contributing to their solution. This can be linked to the difference between necessity and entrepreneurial self-employed, the former relating to the ideas of Bögenhold and Staber (1991) and the latter ranting to the ideas of Koveos (2016). This distinction is also discussed by Marin et al. (2008). They state that on one hand, high unemployment rates may lead to the start-up activity of self-employed individuals (the "refugee" effect). And, on the other hand, higher self-employment rates may indicate increased entrepreneurial activity reducing unemployment in subsequent periods (the "entrepreneurial" effect).

National characteristics and trends

The Netherlands is experiencing a large growth in self-employment (Weistra, 2016). Moreover, the national government is actively stimulating self-employment, as it is seen as a contributor to entrepreneurship and economic growth (Kamp, 2014; Ministry of Economic Affairs, 2014). Besides stimulating self-employment, the Dutch government is working on restricting some forms of self-employment.

According to the Dutch Ministry of Social Affairs and Employment (2018), an increasing amount of self-employed is vulnerable or works in a false self-employment arrangement. Therefore, the Dutch government is taking measures to fight false self-employment and competition on employment terms, especially for lower-class self-employed. Additionally, the government wants to enforce more wage security for higher-class self-employed, to stimulate entrepreneurship (Ministry of Social Affairs and Employment, 2018). These changes in national laws will have an effect on self-employed in the Netherlands.

As briefly mentioned, many factors have an indirect effect on self-employment. A key factor for self-employment, that becomes apparent in the literature, is internet access. The significance of this factor is becoming increasingly meaningful due to the growing global connectivity. Lomax (2017) stated many middle-class self-employed ride on the digitalisation wave. The internet fosters local self-employment with national differences in the rate of self-employment as a result. The Netherlands is one of the countries with good internet access; 98% of the inhabitants being connected to the internet (OECD, 2018b). The Internet has made the catchment area for companies larger and made it possible for companies to be further located from the market. Hence, self-employed that use the internet can sell their products to a wider audience and be located farther from the market.

Consequently, the assumption made by the PBL (2010) that footloose self-employed could use vacant farms in rural Dutch areas as office makes sense. However, not everyone agrees with this. McCann (2008) argues that distance is not dead and the location is still important. This also might be the reason why entrepreneurial self-employed are more often occurring in urban areas as suggested by (Faggio & Silva, 2014). Nonetheless, there are self-employed that choose to live further from the market and use the internet for their connection to the market (E&E Advies, 2012). Especially in the Netherlands, where geographical distances a relatively small and internet access in high, being further located from the market might be less of an issue (E&E Advies, 2012; Binnenlands Bestuur, 2013).

Regional characteristics and trends

Within the Netherlands, various influential regional characteristics can be identified. The most prominent variation is the distinction between urban and rural areas. Not only does the amount of self-employed differ between urban and rural areas, but also the profiles of the self-employed differ. Poor labor market conditions in rural areas are negatively associated with entrepreneurship (Faggio and Silva, 2014). Per contra, in areas with good labor market opportunities workers 'try their luck' as self-employed. It can be expected that business owners tend to move to places that offer the best conditions for entrepreneurial success (Niedomysl et al., 2018). However, as we will see in this section, this might not always be the case since there is more to life than the best location of your firm (PBL, 2010).

Overall, urban workers are discouraged from becoming self-employed by poor labor market conditions more than their rural counterparts, who transit into self-employment as last resort because they lack better alternatives (Faggio and Silva, 2014). This shows that there are differences between the incentives of workers to become self-employed varying per location. The context of the research of Faggio and Silva (2014) is in England, which is a much less densified country than the Netherlands.
Moreover, Faggio and Silva (2014) only subdivide between urban and rural areas. Yet, within rural areas also subdivisions can be made. No rural area is the same and some rural areas have better labor market conditions than other rural areas.

Bijker and Haartsen (2009) have studied this subdivision between rural areas. According to them, too little attention is given to the differences in rural areas and the different people they attract. Hence, they identify three types of rural regions; Popular, average and non-popular rural regions. This subdivision is based on four characteristics on which these rural regions differ, these characteristics were already mentioned in the residential climate section (2.4). Interesting is how the findings of Bijker and Haartsen (2009) can be combined with the ideas of Faggio and Silva (2014). Popular rural areas can be seen as regions with good labor market conditions, which might cause higher income and household growth, suggesting that entrepreneurial self-employment in popular rural regions could be higher. Considering migrants moving to popular rural regions are often higher educated and have a higher income, compared to migrants moving to non-popular rural regions (Bijker, 2013).

One key regional feature that Bijker and Haartsen (2009) mention is travel time to central parts of the Netherlands. If a region is more remote and has a small population the economic activities should be less compared to a more populated region located closer to the economic core (Redding & Venables, 2002). Also, being more remote from the core area can lock a city out of networks (Gluckler, 2007). The gravity model suggests that the economic flow between two places depends on the economy of the origin of the flow, the economy of the destination of the flow and the distance of the flow (Anderson, 2016). Hence, the better the reachability the better the economic position, thus more chances for entrepreneurial self-employment.

3.2 Demographic characteristics

Certain types of self-employment are often associated to specific demographic groups. Hence, in order to make a good interpretation of the self-employment profiles created by the statistical analysis, the demographic characteristics are used as a basis. Additionally, questions about specific demographic characteristics are included in the survey. Accordingly, the demographic characteristics that will be discussed in the following sub-chapters; age, gender, education and family characteristics.

Age

When zooming in on the self-employment growth in the Netherlands, differences can be observed in the age of workers that entered self-employment (Figure 8). From 2003 till 2017 the share of young people, aged between 15 and 35, that became self-employed has stayed relatively stable at 3 percent. In the same period, the self-employment share of people aged between 35 and 55 has grown from 7 to 9

Figure 8 | Age composition Dutch self-employed (OECD, 2018b)

percent. Yet, the largest relative growth has occurred in the oldest age-group, between 55 and 75 years, where the self-employment share has grown from just under 3 to 5 percent. Thus, older workers account for relatively much of the growth in self-employment (OECD, 2018b).

The fact that an increased share of self-employed consists of elderly workers has considerable influence. Elderly workers are more often facing with the downsides of being self-employed. They are more often sick and are sick for a longer time, thus, they suffer more from the lower social security of self-employment (Nationale zorggids, 2018; CBS, 2014a). Additionally, elderly self-employed more often fail. This is because they lack knowledge about the acquisition (Kbo-pcob, 2018; Volkskrant, 2014). Interestingly, the increased failure rates of the elderly cannot be explained by the lagging particular skills for the job they occupy. This shows self-employment survival is not only about skills but also about the practicalities of running a self-employment company.

Gender

According to CBS (2019a), six out of ten self-employed are a man and five out of ten workers are men (Figure 9). Research by Geogrellis and Wall (2004) examines the differences between male and female self-employment. Men and women face very different challenges when entering self-employment. Women still face gender-discrimination, work experience differentials, and labor market segmentation. According to the OECD (2017b) supporting a woman with entrepreneurship training, coaching, mentoring and allowing them to launch a business can help women to create their job, or equip them with skills and experience to help them move into employment. Additionally, women have different occupational strategies and desires for non-standardized work schedules. For this reason women, compared to men, view self-employment more often as a closer substitute for part-time employment or being out of the labor force (Geogrellis & Wall, 2004).

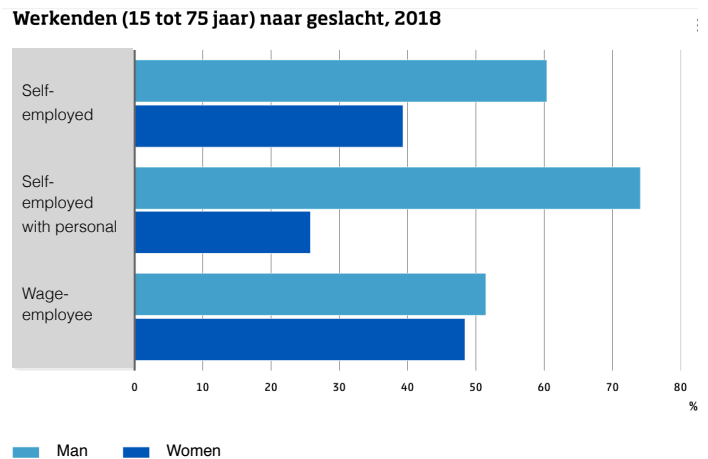**Werkenden (15 tot 75 jaar) naar geslacht, 2018**

Figure 9 | Workers and their gender (CBS, 2019a)

According to Geogrellis and Wall (2004), men and women also respond differently to earnings differentials between wage-employment and self-employment. Earnings differentials are much more important for men than for women. Similarly, capital constraints impose a major obstacle for men to become self-employed but not for women. Besides, women are most likely to enter self-employment from part-time work or non-participation, rather than from full-time work.

These notions made by Geogrellis and Wall (2004) could suggest that men and women have very different motivations for becoming self-employed. For men, monetary reasons are more important, which can be explained by the fact that men more often provide the main income of a family.

Education

Education tends to differ among self-employment profiles (Lomax, 2017). As visualised in Figure 10, self-employed are more often highly educated (44%) compared to wage-employed (36%). As discussed in the necessity and entrepreneurial self-employment paragraphs (2.12 & 2.1.3.), low education is more often related to necessity self-employment and higher education is more often associated with entrepreneurial self-employment (Lomax, 2017). Koster and Venhorst (2014) mention in their research, that high educated self-employed have a larger long-term impact on local economies.

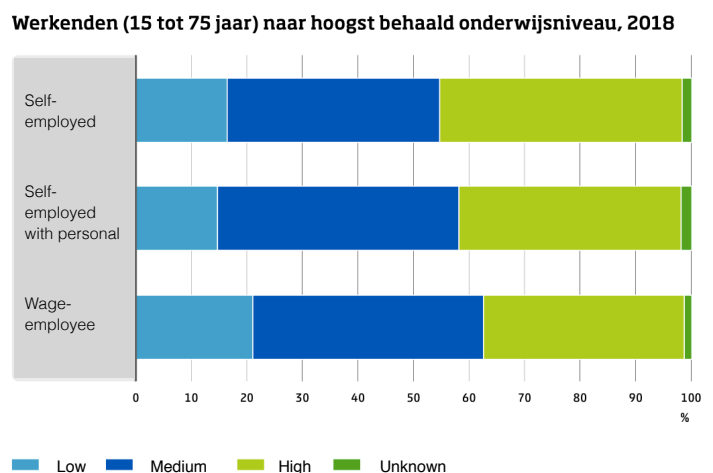**Werkenden (15 tot 75 jaar) naar hoogst behaald onderwijsniveau, 2018**

Figure 10 | Workers and their education (CBS, 2019a)

New firms create jobs and highly educated self-employed may be important in valorising scientific knowledge. Additionally, Koster and Vehorst (2014) conclude that there is a tight locational match for high educated self-employed. This means that many highly educated self-employed work and live in the same municipality, making it likely that the benefits of successful self-employed will remain in the local community where the self-employed live and work. This is a key reason why a municipality wants to attract highly educated entrepreneurial self-employed to their region. An interesting addition are the findings of Bijker (2013) who concludes that highly educated are more likely to move to a popular rural area that a non-popular rural area. This means that popular rural areas will more likely have higher educated self-employed that migrate to their region.

Family characteristics

There seems to be a relationship between the occupation of parents and the occupation of their offspring. A father's self-employment status is a valuable determinant of the offspring's self-employment outcomes (Geogrellis and Wall, 2004; Hout & Rosen, 1999). Several mechanisms can transmit the propensity to be self-employed across generations. First, self-employed parents may endow their children with human capital that is specific to running an enterprise. Second, they may provide role models and adopt child-rearing practices that facilitate self-employment as well. Interestingly Geogrellis and Wall (2004) conclude that, although men whose fathers are self-employed are more likely to become self-employed, this is not true for women. So gender also seems to play a role. If family plays a role in self-employment rate it would make sense that regions with high self-employment will continue to have this, because of the intergenerational characteristics of self-employment. This could also be a reason why entrepreneurship is a spatially persistent phenomenon (Koster & Hans, 2016).

3.3 Conceptual model

This research examines how self-employed with various profiles respond to the residential climate. The main hypothesis of this research is that self-employed, especially footloose self-employed, are attracted to Southwest-Frisia because of its attractive residential climate. It is suspected that these self-employed that are pulled towards Southwest-Frisia have different characteristics than other self-employed. This research focusses on examining these different characteristics and compare them among diverse self-employment profiles. These self-employment profiles are based on the incentives for workers to enter self-employment because they, according to the literature, are a good measurement for self-employment profiles. Next to the motivations for workers to enter self-employment, the aspirations are a key indicator used to discuss the difference between self-employment profiles. The aspirations of the self-employed say something about the potential economic impact a self-employed has on a local economy. The spatial trends and demographic characteristics are expected to influence the motivations and aspirations of the self-employed.

Figure 11 shows the conceptual framework used in this research. The motivations and aspirations of the self-employed are influenced by the spatial trends and demographic characteristics. For example, an elder person with a low education that was fired during the crisis is likely to enter self-employment because he or she cannot find wage-employment.

The self-employment profiles are, as mentioned, based on the motivations and aspirations of the self-employed. By not using the spatial trends and demographic characteristics as a direct basis for the identification of the self-employment profile, space is given to motivations and aspirants that are not explained by these two factors. For example, the person that entered self-employment because he or she could find wage-employment is likely to be a necessity self-employed, but he or she can also have entrepreneurial motivations. Hence, the spatial trends and demographic characteristics are taken into account, but they are not leading in the identification of the self-employment profiles. Finally, the self-employment profiles that are identified using statistical analysis are all expected to have a distinct response to the residential climate. Some have a limited response, visualised by a dotted line, and others have a strong response, visualised by a continuous line. Examining how the self-employed belonging to various profiles respond to the residential climate, allows us to investigate if attractive locational characteristics influence self-employment. In like manner, this enables us to test the hypothesis if the residential climate attracts footloose self-employed.
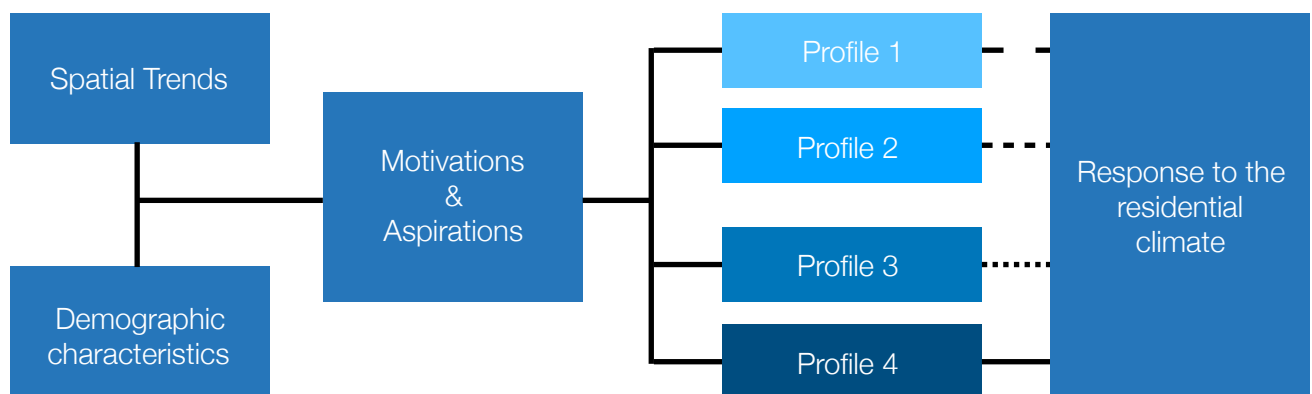

Figure 11 | Conceptual model

4. Methodology

This research is a case study that uses a survey as main data collection tool. In this chapter there will be elaborated on specific choices that are made in the methods of this research. There is especially elaborated on the choice for a case study, the design of the survey and its distribution.

4.1. Research methods

The case study region of this research is the COROP region Southwest-Frisia. This region is chosen as it has both intrinsic and instrumental characteristics that make it a good case study. Intrinsic meaning the case is chosen for its unusual characteristics, being the attractive residential climate and the high share of self-employed (Clifford et al., 2016). Instrumental meaning the case illuminates a wider issue, which is the recent growth of self-employment in the Netherlands. Researching who these self-employed are and what the influence of their location is for entering self-employment (Clifford et al., 2016).

This research looks at the incentives for becoming self-employed and use this information to compose different self-employment profiles. Form the literature in chapter 2 and 3 it became clear that the motivations for individuals to enter self-employment are very influential of the type of self-employed someone is. For example if a self-employed entered self-employment because monetary motivations or because he or she could find a job, this individual is more likely to be necessity driven instead of opportunity. This shows that motivations give a lot of insight into the potential profile a self-employed belongs to. Hence, this research uses motivations of self-employed as input for the identification of the self-employment profiles. To acquire the incentives of becoming self-employed specific information is needed that is not available in secondary databases. Therefore, the incentives and other characteristics of Southwest-Frisian self-employed are obtained via a survey. The other characteristics of the self-employed, like demographics, are used to test and interpret the self-employment profiles that are created by statistical analysis.

As a primary data collection tool, a survey has as a downside that it provides less detailed information as opposed to interviews (McLafferty, 2010). Nonetheless, interviews do not allow for making representative statements about a large population (Longhurst, 2010). Additionally, surveys provide more quantitative data which makes composing self-employment profiles via statistical analysis easier. Surveys offer the opportunity to, through a set question list, derive information about the characteristics, feelings, and opinions of the respondents. Since all the respondents fill in the same questions the answers they give can be compared and used for statistical analysis, whereas for interviews making comparisons is much harder and subjective. Using a survey is thus, taking the population and aim of this research into account, the best way to obtain information about the population.

Survey

The survey is, opposed to the research, made in Dutch. The reason for this is because the population consists of Dutch self-employed, of which the vast majority feels more comfortable answering questions in Dutch. The survey consists of a total of 30 questions of different types; closed, open and slider questions. Closed questions allow for quick and easy responses to simple questions, here respondents chose between multiple predefined answers, they are used for basic questions like age and gender. Open questions allow respondents to give their answer, not guided or influenced by predefined answers. Open questions are asked about the main motivations for becoming self-employed, the products or services they sell and the previous experience they have with these products or services. Finally, slider questions are added. These questions enable respondents to score how well certain statements or characteristics fit them. Rather than simply selecting a scale point, respondents drag a bar to indicate their preference level. Slider questions were asked about motivations, aspirations and influence of locational characteristics. These questions are vital for the identification of self-employment profiles since they provide more detailed, yet comparable, data on individual motivations. Especially the comparability of survey questions makes the usable for statistical testing, something which is much harder with open questions. Nonetheless, many questions include an option to answer 'other', ensuring the respondent has the opportunity to give a more fitting answer if they please (McLafferty, 2010). As mentioned, each type of question provides different information which is required to identify the self-employment profiles. Additionally, the mixing of different types of questions throughout the survey ensures the respondent will stay active and won't get bored during the survey and consequently not finish it (Madge, 2010).

The guidelines for designing a survey discussed by Clifford et al. (2016) are taken into account. These guidelines are (i) keep it simple, (ii) define terms clearly and (iii) use the simplest possible wording. Moreover, Clifford at al. (2016) mention five elements to avoid when designing a survey which was considered in this survey design. These five things to avoid are (i) long, complex questions, (ii) two or more questions in one, (iii) jargon, (iv) biased or emotionally charged terms and (v) negative words like 'not' or 'none'.

The survey consists of four parts; (i) introduction questions, (ii) questions about the company, (iii) questions about the company location and (iv) questions about the business operations.
(i)   The introduction questions are designed to give an overview of the individual characteristics of the self-employed. Questions are asked about age, education, company location, and self-employment earnings. In this part, most questions are closed since they are straightforward and do not require elaboration.
(ii) The questions regarding the company are designed to give an overview of the company itself. The aim is to provide more insight into what type of company it is, focusing on the distinction between entrepreneurial and necessity driven self-employed. Furthermore, several questions are focused on the incentives for the respondent to become self-employed. In this part, there is a mix of closed, open and slider questions.
(iii) The questions about the company location are designed to derive to motives for locating in Southwest-Frisia, looking at what the influence of the residential climate and conditions are on the respondent. In this part, the type of questions is mainly focused on slider questions, since they allow for more input than closed questions, yet, they are still comparable.

(iv) The questions about the business operations focus on the growth ambitions of the self-employed. This provides an overview of the respondents' ambition to grow and if they do, what type of growth. This part also contains the closing questions. Again, the type of questions is mainly focused on slider questions, since they allow for more input than closed questions.

Linking the survey design to the conceptual model. The first part about the self-employed derives demographic characteristics, such as age and education. The second part, about the company, is mostly about the motivations why the respondent became self-employed, besides there are questions about trends that influence the self-employed. The questions about company location are about why the respondent lives and works in Southwest-Frisia, this allows us to investigate how the different self-employed respond to the residential climate. The final part about the business operations is mostly about the aspirations of the self-employed.

4.2 Data collection

Getting respondents to fill in the survey turned out to be more difficult than envisioned. In 2018 the General Data Protection Regulation (GDPR) law of the European Union entered into force. This law prohibits personal information from being shared with third parties. Meaning that governmental and other organisations are not allowed to share contact information about self-employed. This complicated the collection of contact information of potential respondents. Additionally, self-employment is hard to identify. When searching online, finding self-employed is challenging as they usually do not advertise themselves as self-employed. To assure as much self-employed as possible would be reached the following methods were used, which are described in table 1.

Table 1 | Methods to obtain respondents

Method	Result
Contact municipalities (Súdwest-Fryslân and Fryske Marren)	Due to privacy regulations they were not able to help. Additionally they had no clear overview of the self-employed in their municipality.
Contact business associations	34 business associations were contacted out of which 4 responded that they were willing to help and send an email to their members. Nonetheless, this approach was probably not effective since these business associations mentioned in advance that they had not many self-employed members.
Contact organizations that organize self-employment events	Multiple event organizations were emailed, however, no response was given.
Contact the Dutch Chamber of Commerce (KVK)	Via the '*KVK bedrijfvenradar*' App 30 business summaries could be opened per account. However, most summaries did not contain contact information. Multiple accounts were used, but this approach turned out to be not effective and extremely time-consuming. Additionally, the KVK was contacted, but the data was not available for free.
Contact self-employed individual	Via the websites https://sudwestfryslan.smartmap.nl and https://defryskemarren.smartmap.nl overviews of all amenities and businesses in a region can be found. Via these websites, potential self-employment companies were identified and contacted. In total 438 companies were contacted.

Eventually, the usage of multiple methods for distributing the survey paid off. In total 91 respondents filled in the survey. Although this is a suitable number for statistical analyses some issues need to be recognised.

Distributing the survey via the municipality and looking-up self-employed contact information via the Chamber of Commerce was not possible nor effective. This resulted in issues for the sampling of the survey, considering the population of this research is a strongly heterogeneous group, consisting of all self-employed in Southwest-Frisia. Therefore, a wide variety of self-employed must be contacted to have a representative sample. This would have been easier if the municipality or the Chamber Commerce was able to share the contact information of all self-employed. Then, all or at least a very large share of the self-employed in Southwest-Frisia would have been available to contact. Unfortunately, this was not possible causing alternative methods for selecting respondents to be chosen.

The most effective alternative method was looking up contact information of self-employed via a website called SmartMap. This is an address database that contains basic information on more than one million businesses in the Netherlands. Although this method was most effective it has a view downsides, the most notable being that not every self-employed has a website or contact information online. Moreover, there is most likely a pattern in the type of companies that have contact information online and those who don't. Especially self-employed working in the primary and secondary sectors usually do not have a website or their contact information online, the same goes for self-employed that are identified as false self-employed. By extensive searching online for self-employed in these sectors the issues concerning this are minimised. Nonetheless, it is still important to keep in mind. The same problem goes for educational level: lower educated self-employed frequently do not have an internet website or email address. Although it is vital that these data collection issues are taken into account when reading this research the results are still meaningful and can be used. This research focusses on the residential climate, something which is argued to have more influence on entrepreneurial self-employed, a group that is included in the sample. Moreover, as we will see in the next chapters, a wide array of different self-employment profiles can be derived from the survey data. Finally, because many different distribution methods are used it is hard to calculate an exact response rate to the survey. Yet, it is possible to make an estimate. Assuming around 450 individual self-employed were contacted the response rate is around 20 percent.

4.3 Data analysis

All 91 respondents of the survey are useable. This is because most questions forced response and only some questions requested a response. This caused everyone to complete the survey to have filled in all or most information. Only the ranking questions Q20, Q24 and Q26 had missing values, meaning some respondents did not answer these questions (Q20: 3 missing; Q24: 3 missing; Q26: 2 missing). These missing values were not related to the particular questions asked, therefore there is decided only to remove the missing values regarding the question and not all answers of this respondent.

Table 2 gives an overview of the questions asked in the survey (translated from Dutch). The table also gives an overview of the type of variables and the answer possibilities. Some answers were converted to fit for statistical analysis.

Table 2 | Survey questions

Q1	Age	Ordinal	0=18-34; 1=35-54; 3=54-75
Q2	Gender	Nominal	0=women; 1=men
Q3	Education	Ordinal	0=Primary education & Secondary vocational study; 1=Higher professional education; 2=University education
Q4	Residential location	Text entry	-
Q4a	Popularity location	Nominal	1=average; 2=popular; 3=urban
Q5	Business location	Text entry	-
Q5a	Locational match	Nominal	0=no; 1=yes
Q6	Working from home	Nominal	0=no; 1=yes, sometimes; 2=yes, always
Q7	Growing up location	Nominal	0=southwest-frisia; 1=frisia; 2=north netherlands; 3=elsewhere
Q8	Number of self-employment businesses owned	Ratio	-
Q9	Self-employment main income source	Nominal	0=no; 1=yes
Q10	Self-employed as breadwinner	Nominal	0=no; 1=yes; 2=equal
Q11	Direct reason for becoming self-employed	Nominal	Text entry
Q12	Who started the business	Nominal	0=the self-employed; 1=family business; 2=taken over
Q13	When was the business started	Interval	-
Q13a	Started during crisis (between 2008-2016)	Nominal	0=no; 1=yes
Q14	Wage-employment experience	Nominal	1=no; 2=yes<5; 3=yes,>5
Q15	Situation when becoming self-employed	Nominal	0=working in wage-employment; 1=studying; 2=finished studying; 3=already working as self-employed; 4=unemployed; 5=fired; 6=other
Q16	Rating reasons for becoming self-employed	Ratio	Ratings on: A. Flexibility B. Income C. Being able to do it better yourself D. No longer want to work for a boss E. Dismissal F. Not able to find a job G. Positive experiences other self-employed
Q17	Products/services of the business	Text entry	-
Q17a	SBI-code	Text entry	-
Q18	Experiences with products and services	Nominal	0=no; 1=yes
Q19	Where do the product/services come from	Nominal	0=produce them ourselves; 1=frisia; 2=national; 3=international; 4=i don't make products
Q20	Rating importance different market scales	Ratio	Ratings on: A. Province (Frisia) B. Region (North Netherlands) C. National (Netherlands) D. International
Q21	Where do you self the products	Nominal	0=at the business location; 1=at the costumer; 2=online; 3=other
Q22	Importance of internet	Nominal	0=no; 1=yes
Q23	Started at current location	Nominal	0=no; 1=yes

Q23a	Start location	Nominal	1=same; 2=Other location in Southwest-Frisia; 3=other location not Southwest-Frisia
Q24	Rating important characteristics for locating in Southwest-Frisia	Ratio	Ratings on: A. Physical qualities of living environment B. Space and quietness C. Characteristics home/business location D. Low house prices E. Proximity friends and family F. Social qualities of the living environment G. Opportunity to combine living and working
Q25	Residential location most important	Nominal	0=no; 1=yes
Q26	Rating growth ambition	Ratio	Ratings on: A. Revenue B. Employees C. Exports D. Innovation
Q27	Active in local community	Nominal	0=no; 1=yes
Q28	Needs extra help	Text entry	-
Q29	Other notes	Text entry	-
Q30	Interests in results	Text entry	-

4.4. Ethics

The survey asks several personal questions about the respondent, hence, ethical considerations are taken into account. According to Clifford et al. (2016), there are three principles of ethical behaviour. These three principles correspond with four questions that a researcher should ask himself of herself.

The first principle is justice and corresponds to the question "Is this just?". This principle emphasises the distribution of benefits and burdens. Usually, this principle forms the basis for research by questioning the justice of a current situation. Likewise, this research is based on the same question. Knowing who the self-employed in Southwest-Frisia are we can distribute benefits and burdens in a way which is more suitable for the self-employed. Moreover, these findings can be used to reveal the importance of looking more closely at regional self-employment characteristics, such as the influence of the residential climate.

The second principle of justice is beneficence/non-maleficence, corresponding to the questions "Am I doing harm?" and "Am I doing good?". Beneficence and non-maleficence respectively mean doing good and avoiding harm. Academic research should focus on maximising benefits and minimising physical, emotional and environmental harms. This principle concentrates on the results of the research. In this research, the results should provide more insight into the characteristics and profiles of the self-employed in Southwest-Frisia and the influence on the attractive residential climate, something which is not yet researched in this detail. The results are beneficial for local self-employed if policymakers consider the results of this research in their plans.

The third principle of justice is respect, corresponding to the question "Am I showing respect?". To include respect individuals should be regarded as autonomous agents. Additionally, the welfare, beliefs, rights, heritage, and customs of people involved in the research need to be considered.

Respect to the respondents is taken into account in the following ways:

- First, the survey is designed in a way that the respondents are anonymous. The questions about the home location and work location are asked on the scale level of towns and villages and not on a street level. Moreover, there is deliberately chosen not to ask for the company name, but only the products, services or activities that the business sells. This provides enough information about the company and minimises privacy issues.
- Second, the survey provides the opportunity to the respondent not to fill in their gender or education level, since not everyone feels comfortable with this. Moreover, questions about job loss and dismissal are framed in a respectful way considering negative feelings a respondent could have regarding this.
- Third, personal questions regarding wages were only asked on a general level. There was no question in asking the wage of a respondent, only if the self-employment was the respondent's main income and if he or she was the breadwinner.
- Fourth, at the ending of the survey respondents were asked if they had anything else to mention about the survey or about being self-employed.
- Fifth, the contact information of myself and my supervisor are included at the beginning and end of the survey in case the respondent had any questions regarding the research or the survey.
- Finally, the data is saved on my own private computer and my personal Qualtrics account, so they are only accessible by or via me.

5. Analysis Southwest-Frisia

The types of self-employed differ between geographical locations. In chapter 2 and 3 theories regarding the geographical variation of self-employed are discussed. Locational factors and characteristics of inhabitants of a region have an influence on the types of self-employed. In this chapter we will connect the literature of chapter 2 and 3 to the case study region Southwest-Frisia. The analysis of the region is used to support the conclusions, by examining how the identified profiles relate to the expected variation in the region. Moreover, it allows for comparison between the sample and the population in the next chapter. Finally, this analysis helps further research that looks at other case study regions, as it will make comparisons among regions more easy.

5.1. Location

One of the key reason why Southwest-Frisia is chosen as case is because of its locational characteristics. In this subchapter we will look into the rural characteristics of the region and why it is considered to have an attractive residential climate.

Rurality and residential climate

The Netherlands has, according to international standards, almost no rural areas. Nonetheless, according to Dutch standards, there are several rural areas, located mostly at the edges of the country. One of these rural areas is Southwest-Frisia (region NL125; Figure 12). Southwest-Frisia has a low population density. The region has a lower density than the province of Frisia, which could be explained by the absence of large cities. With an average density of 168 inhabitants per square meter, it even has the lowest population density of all Dutch COROP regions, after Zeeuws-Vlaanderen which has a population density of 144 inhabitants per square meter(CBS, 2017a).

As mentioned, Southwest-Frisia is an attractive rural area characterised by semi-open sand grounds with predominantly livestock farming and a relatively high density of nature reserves (Bijker & Haartsen, 2009). The region is renowned within the Netherlands for its typical

Figure 12 | NUTS 3 regions Netherlands (Eurostat, 2016)

Frisian landscape containing numerous lakes and idyllic villages, many of whom belong to the Frisian eleven cities. These idyllic characteristics of the rural landscape are most likely key reasons for the high perceived residential climate of Southwest-Frisia (Rabobank, 2005). Southwest-Frisia is, however, not only an attractive place to live, but it is also one of the most attractive rural areas of the Netherlands according to the National Landscape Survey (Figure 13; Buijs et al., 2019).

Hence, the Frisian sand grounds, of which Southwest-Frisia is part, are one of the most popular places for inland vacations (NBTC Holland Marketing, 2018). Because of the rural idyll, rural areas are increasingly seen as a place of consumption instead of production (Burchhardt, 2002). This commodification of rural areas could be the reason why more non-agricultural workers move to the countryside to start-up their business. This provides opportunities for Southwest-Frisia, especially because of the attractiveness of the region.

Accessibility

The second key characteristic of attractive rural regions Bijker and Haartsen (2009) mention is accessibility. Assuming the attractive residential climate pulls footloose entrepreneurs towards Southwest-Frisia the accessibility of the region needs to be examined.

Southwest-Frisia is located relatively far from the urban and economic core of the Netherlands, the Randstad. Moreover, the region has a relatively small population and relatively low GDP per capita (Environmental Data Compendium, 2014). According to Redding and Venables (2002), this should cause a relatively low degree of economic interaction between the Randstad and Southwest-Frisia. This statement also seems empirically accurate. As visualised in image 14, the daily movements in Southwest-Frisia are regional and inward-focused. Yet, one must keep in mind that this data is on daily movements, mostly considering people who commute from home to work. This indicator of interaction does not show other interactions, such as non-daily commutes or internet connections.

In terms of infrastructure, Southwest-Frisia has a favourable location within the Northern Netherlands. The region is well connected by train, national and provincial highways. However, accessibility is not only about the availability of infrastructure, but it is also about the travel speed and the proximity of the destination. Figure 15 visualises the average travel times per zip code area to any other Dutch zip code area. As can be seen in the images, the travel times in the western part of Southwest-Frisia are higher than the other parts, mostly caused by the worse accessibility by public transport. Opposed to public transport, the travel times by car are much better, due to the good connection to the national highway network. Although these maps give a good and detailed insight into the accessibility of the region, the maps give a skewed image. Regions that are located further from the geographical centre of the Netherland will always have a higher travel time to other parts of the country.
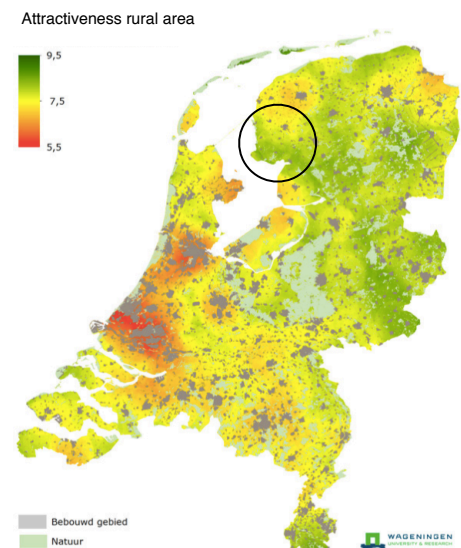

Figure 13 | Average perceived attractiveness of the rural areas (Buijs et al., 2019)
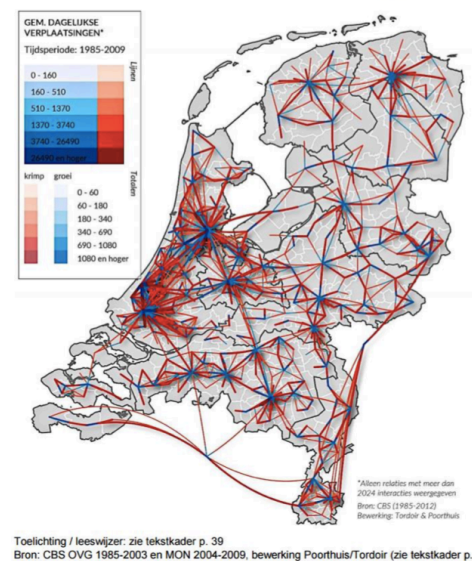

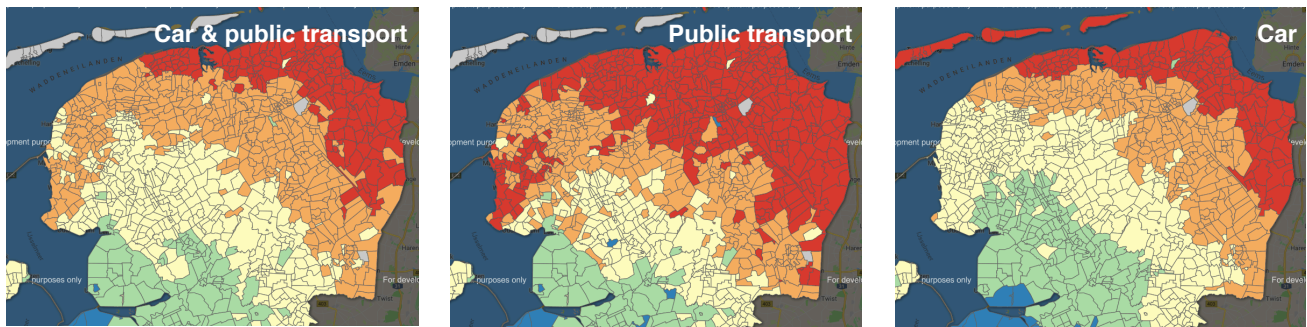Figure 14 | Average daily commutes (Kennispunt Twente, 2015)

Figure 15 | Average travel times per zip code area to any other Dutch zip code area* (Geodan, 2011)
Legend differs per map, overall blue is the best and red is the worst

Furthermore, the data suggest that everybody will travel at the same speed that is assigned to each line in the network. However, this is not the case in real-life, cars in the more urbanised areas in the Netherlands will experience more traffic jams (PBL, 2014). Whereas image 15 shows the average travel time to every zip code area, it is unlikely that someone from Southwest-Frisia will often commute to South-Limburg. Therefore, we also take a more regional focus. Southwest-Frisia has one of the highest average travel speeds of the Netherlands (PBL, 2014). Additionally, Southwest-Frisia also has one of the lowest proximity of jobs in the country (PBL, 2014). Meaning that the benefits of the high travel speed are partially compensated since the inhabitants need to travel further for their jobs.

Relating what we have mentioned about accessibility to self-employed and their profiles. Parker (2009) mentions that entrepreneurial self-employed are more concerned with specialised services and goods. These goods often have a larger catchment area, and thus need an accessible location. If one would expect a footloose self-employed move towards Southwest-Frisia to start their business the region needs to have good accessibility and connection with the market, either physical or via the internet (PBL, 2010).

5.2. Economy

The economic characteristics of a region can explain a lot about self-employment. Self-employed can spur economic development when they expand their business. However, this depends on the profile of the self-employed. In this subchapter we examine how different self-employment profiles fit in the economic characteristics of Southwest-Frisia.

Economic growth

Some research suggest self-employed to have a large economic impact, as they cause growth and innovation. To examine if this could be the case in Southwest-Frisia, the economic characteristics of the region are elaborated. Southwest-Frisia has one of the lowest GDPs per capita of the Netherlands (Environmental Data Compendium, 2014). Nonetheless, it also has one of the fastest-growing GDPs per capita of the country for several subsequent years (Environmental Data Compendium, 2014; CBS, 2019b).

In 2018 Southwest-Frisia even had the highest GDP growth of the Netherlands with 5.2%, although this is partially due to municipal reorganisation (CBS, 2019b). Still, the region is experiencing considerable growth, particularly compared to its surrounding regions which have experienced substantial lower growths or even decline (Environmental Data Compendium, 2014).

If the high share of self-employed consists of workers that are planning to expand their business, the economic growth in Southwest-Frisia could increase in the coming years. However, as Hurst and Pugsley (2010) argue many self-employed do not plan to expand. These so-called replicative self-employed predominantly respond to local demand and growing population and are therefore symptoms of a growing economy rather than causes (Faggio & Silva, 2014). Investigating the composition of the self-employment profiles can give more insight in if this is indeed the case.

Characteristics of self-employment in Southwest-Frisia

Southwest-Frisia is characterised by a high self-employment share. In 2015, the percentage of self-employed as part of the workforce in Southwest-Frisia was 12,9%. Two essential characteristics of self-employment are income and assets. Necessity self-employed are more likely to work in the bottom range of self-employment occupations, hence, they earn less money (Lomax, 2017). A lower mean income of self-employed could suggest a higher share of necessity self-employment. In this paragraph, the standardized income will be used to discuss the income. The standardized income takes the disposable income into account corrected for household size (CBS, 2015a). This allows for better analysis than the real income considering self-employed make choices based on how much money they can spend.

Looking at the median standardized income we see that the differences between the Netherlands, Frisia, and Southwest-Frisia are not very large (Figure 16). Still, the median standardized income in the Netherlands is higher than in Southwest-Frisia. From a more regional perspective, we see that the median standardized income in Southwest-Frisia is slightly higher than in Frisia. Compared to the median standardized income, we see larger differences in the mean standardized income of self-employed, although the order remains the same (Figure 16). When comparing the mean and the median we can see how skewed the distribution is since the mean is more influential to outliners. If the mean is higher than the median, which is the case, this means that a small group of self-employed earns more money than the rest. The differences between the median and mean standardized income is largest in the Netherlands and around the same in Frisia and Southwest-Frisia, Frisia having a slightly lower difference. This means that the standardized income in Southwest-Frisia, compared to the Netherlands, is less skewed and there are fewer outliners.

Besides the income of the self-employed, the assets and business assets of the self-employed say something about the self-employed. Considering self-employed need these assets, as self-employment is riskier than wage employment due to less social protection (Lomax, 2017; Faggio & Silva, 2014). Although on average self-employed have considerably more assets than wage-employed there are large differences within different groups of self-employed. In total 19% of Dutch self-employed are in debt (Trouw, 2018). Looking at figure 16 we see that Southwest-Frisia has the highest percentage of self-employed with business assets, with more than 83% (CBS, 2015a). Business assets allow self-employed to make investments and help them overcome financial setbacks (CBS, 2019c).

Running a self-employment business asks for many investments in for example the purchase of agricultural land, training or stock for a store. Moreover, business assets can be used to enlarge the personal assets of the self-employed.

Having business assets is thus vital for self-employed. Likewise, the height of the business assets is key. Figure 16 shows that the median business assets of self-employed in Southwest-Frisia are significantly higher than in the Netherlands and Frisia. This may be due to the differences in occupations of the self-employed, some requiring higher assets than others. Overall, self-employed working in agriculture have the highest business assets, whereas self-employed in the service sector have the lowest business assets (CBS, 2019c). Agriculture businesses have high business assets as they require much more capital investments. Although the share of Southwest-Frisian self-employed working in agriculture is slightly higher, this cannot explain the large difference in assets (CBS, 2015b). Interesting is that not only the business assets but also the personal assets of the self-employed in Southwest-Frisia are substantially higher than in the Netherlands and Frisia. Business assets can also be used for social security. Moreover, these high assets suggest a higher share of entrepreneurial self-employed.

Figure 16 | Income and Assets self-employed* (CBS, 2015a)
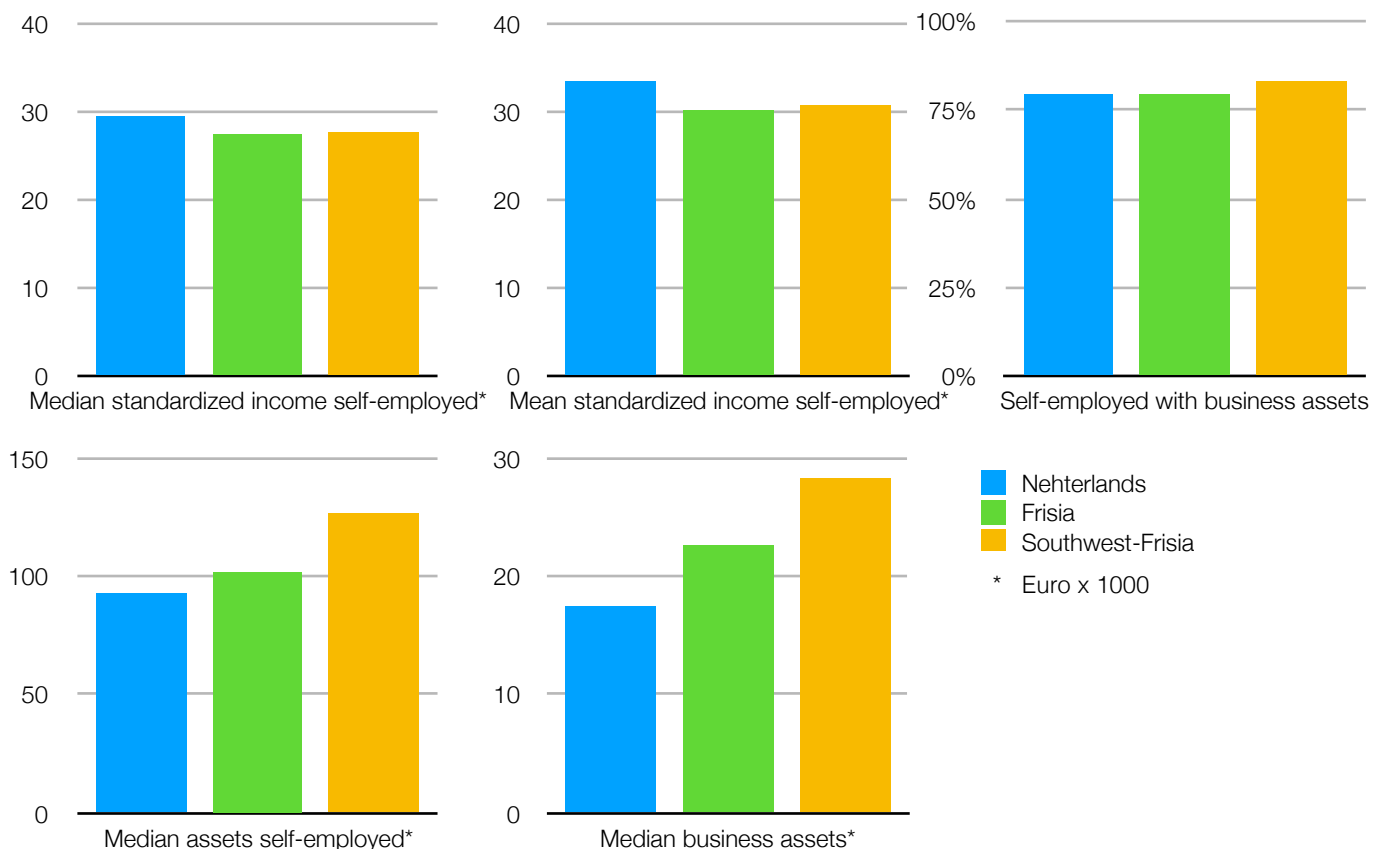
5.3. Demographics

Just as economic characteristics, demographics compositions tell a lot about a region. Different demographic groups tend to correlate to specific self-employment profiles. A overview of the demographic characteristics in Southwest-Frisia allows for a comparisons between the demographics of all inhabitants and the self-employed.

Age

Like most parts of the Netherlands, Southwest-Frisia is coping with an ageing population. The old-age dependency ratio in Southwest-Frisia is high. The ratio old-age dependency ratio is the ratio of the elderly people (people older than 64) in relation to the working-age population (those ages 15-64). If this number is high it means that more working-age people need to compensate for the lack of productivity of older people. Compared to the Netherlands (31,3%) and Frisia (35,9%), Southwest-Frisia (38,7%) has the highest old-age dependency ratio (CBS, 2017a). A larger share of people over 65 can have implications for the types of facilities needed in a region. Interestingly, Southwest-Frisia does not only have the highest old-age dependency ratio, compared to the Netherlands and Frisia, it also has the highest young-age dependency ratio (42,6%), compared to the Netherlands (37,8%) and Frisia (40,5%) (CBS, 2017a). This could have positive future effects on population development if these youngsters do not migrate. The high old-age dependency is also reflected in the population growth of Southwest-Frisia. The high share of the elderly is one of the key causes of the negative birth surplus that characterises the region. Per one thousand inhabitants, the birth surplus is -0.3, meaning that more people die than are being born (CBS, 2017a). Yet, due to a positive migration balance, the relative population growth is positive, with a population growth of 1,3 per thousand inhabitants (CBS, 2017a). These migrants of special interest for this research, since they may include entrepreneurial self-employed that are pulled towards Southwest-Frisia because of the high residential location.

More elderly inhabitants can affect self-employment. According to the literature, older self-employed are more often faced with issues like the lack of social security in self-employment and bankruptcies. More elderly self-employed thus create issues that need to be taken into account.

Education

A second essential demographic characteristic for the identification of different self-employment profiles is education. In general, highly educated work in self-employment sectors which have a different, usually more long-term, impact on local economies (Koster and Venhorst, 2014). Additionally, Koster and Venhorst (2014) conclude that there is a tight locational match for high educated self-employed. This means that many highly educated self-employed work and live in the same municipality, making it likely that the benefits of successful self-employed will remain in the local community where they live. Finally, Bijker (2013) concluded that highly educated are more likely to move to a popular rural area, like Southwest-Frisia. This theory is reinforced by data of the WRR (2016) that tells us that Southwest-Frisia has a higher share of highly educated than the non-popular rural COROP regions in the north of the Netherlands.

Looking deeper into the composition of education levels, some differences between the Netherlands and Southwest-Frisia are discerned. Southwest-Frisia has a lower share of highly educated than the Dutch average (WRR, 2016). When looking at the share of highly educated Southwest-Frisia ranks 29th out of all 43 Dutch COROP regions (WRR, 2016). Interestingly, Southwest-Frisia also ranks 29th out of all 43 Dutch COROP regions, when looking at the share of low educated. Finally, when looking at the share of medium educated Southwest-Frisia ranks 3rd out of all 43 Dutch COROP regions. Thus, from a national perspective, Southwest-Frisia has a high share of medium educated inhabitants and a low share of low and highly educated.

Because people age and/or migrate, education compositions change over time. As we can see in figure 17, the share of highly educated has grown and the share of low educated has declined over the years. When comparing Southwest-Frisia to the Dutch average we see that this shift happened much faster in the whole of the Netherlands. Nonetheless, the differences between 1997 and 2016 are relatively higher in Southwest-Frisia. From 1997 till 2016 the share of low educated in Southwest-Frisia declined with 40%, in the whole Netherlands this decline was 31%. Moreover, the share of highly educated in Southwest-Frisia grew with 100%, while in the whole Netherlands this growth was 52% (WRR, 2016). So although figure 17 makes it seem like both the Netherlands and Southwest-Frisia show the same growth patterns, one must take into account that the differences in Southwest-Frisia are much larger.

Figure 17 | Relative composition of education levels over time (WRR, 2016)
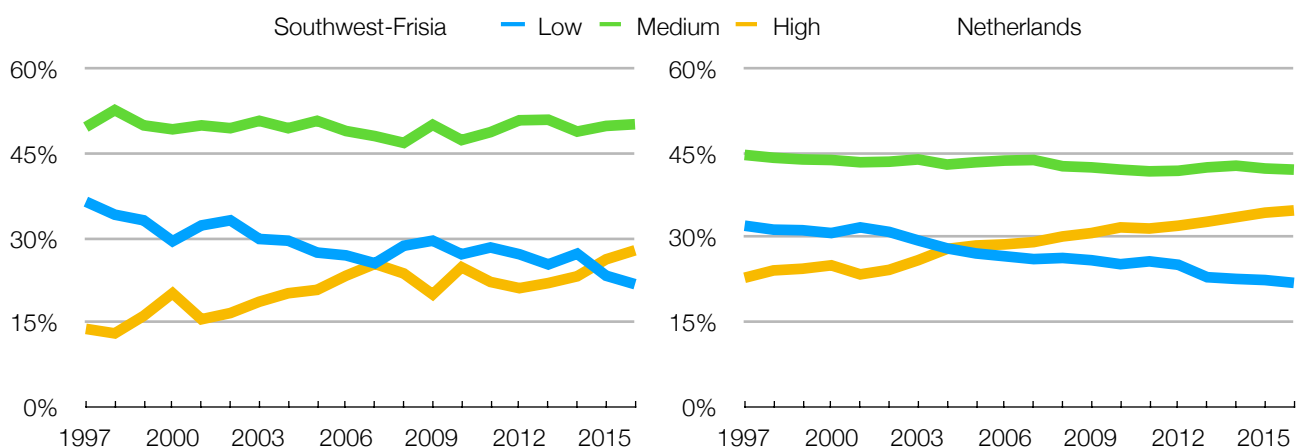
Overall, the demographics in Southwest-Frisia show some interesting characteristics. First of all, there is a high share of the elderly in Southwest-Frisia. These elderly are often associated with necessity self-employment. This is especially the case if these elderly are low educated, which they often are. A high share of necessity self-employed is not by definition a bad characteristic. However, low skilled elderly are a vulnerable group that, according to literature, often fails in self-employment. Besides the high share of the elderly, there is an opposing trend. Over the last years, the share of highly educated in Southwest-Frisia has grown with 100%. Moreover, these highly educated are often young people between 30 and 40 years old. This is a group that is associated with entrepreneurial self-employment. Nonetheless, these groups are smaller than the low educated elderly group.

6. Self-employment profiles in Southwest-Frisia

In this chapter we will analyse the results of the survey. First, some general characteristics of the responds are describes. This includes an overall overview of the answers to the questions about the motivations and importance of locational characteristics, as they form the basis of this research. Second we will identify self-employment profiles, using statistical analysis. Third, the self-employment profiles are interpreted by comparing the indented profiles to the literature of chapter 2 and 3.

6.1 Respondents

Before we will go into more detail about the results of the survey, some general characteristics of the respondents will be discussed. This will help to examine how representative the sample is. In total 91 self-employed in Southwest-Frisia completed the survey. The respondents are evenly distributed across the region, with some clusters located in the more populous villages; Sneek, Joure, Lemmer, and Makkum (Figure 18). 48 respondents are male and 43 are female. This fits both the composition of men and women in Southwest-Frisia, as well as national data that mentions six out of ten self-employed is a male (CBS; 2019a; CBS, 2017a). Looking at the age; (i) 10% of the respondents are aged between 18 and 34 years, (ii) 53% between 35 and 54 years, and (iii) 37% are between 55 and 75 years. The percentage of young self-employed is slightly lower than one would expect when looking at the

Figure 18 | Spatial distribution respondents

total age composition in Southwest-Frisia (chapter 5) and the national age composition of self-employed (OECD, 2018b; CBS, 2017e). This lower percentage of younger respondents is compensated by a higher share of respondents in the older age-group, indicating that there are, according to the sample, relatively more elderly self-employed in Southwest-Frisia then the Dutch average.

The educational distribution does show a different composition than one would expect; (i) 4 % of the respondents have a low educational level, (ii) 18% has a medium level and (iii) 78% have a high educational level. This is not in line with the educational level of all inhabitants of Southwest-Frisia, described in chapter 5 (WRR, 2016). This difference in the composition has two main explanations, which probably have a combined influence. Interestingly, the first explanation is one of the main topics of this research.

Southwest-Frisia has an attractive residential climate and favourable locational characteristics which, according to literature, attracts footloose self-employed who chose to locate in the region. Self-employed that locate in Southwest-Frisia because of the high-quality living environment are more likely to be higher educated, which explains the larger share of higher educated (Bijker & Haarsten, 2009). The second reason why the share of highly educated is higher can be found in the data collection method. As discussed in the methodology chapter the data collection was done differently than presumed. This caused only self-employed with a website or contact information online to be asked to fill in the survey, which likely created a bias in the data. These self-employed, who have a website and contact information online, are more probable to be higher educated. The effects of this bias are taken into account in the conclusions of this research.

Self-employment characteristics

In the survey respondents were asked questions about themselves, their company, their location choice, and their business operations. These questions give an overview of who the respondent is, what type of self-employed he or she is classified as and what the influence of the locational characteristics of Southwest-Frisia are. The most valuable characteristics for this research are discussed below.
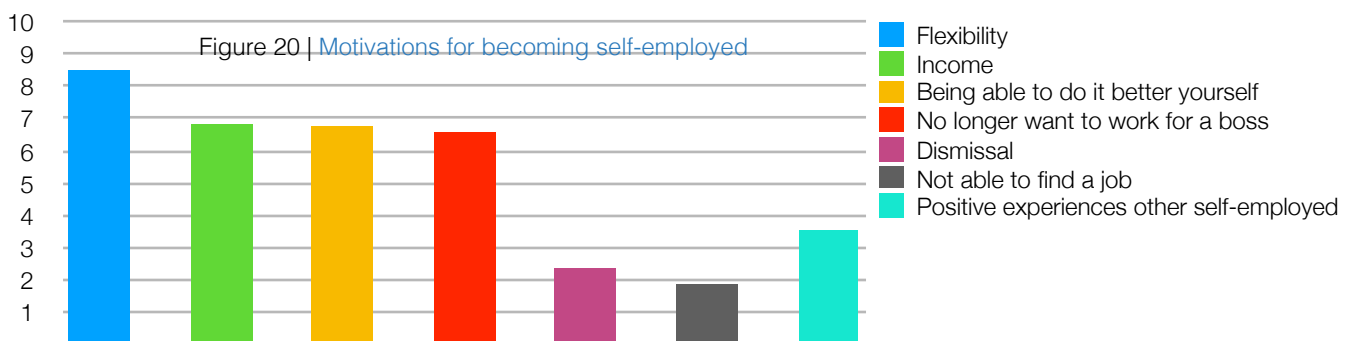
To start with the economic sectors the self-employed work in, the largest share of the respondents is employed in the business services (Figure 19). This sector mainly includes respondents working in a wide range of advisory businesses, an occupation that is highly suitable for self-employment. Additionally, this sector is characterised by higher educated respondents of middle and older age (35-75 years) that already have experience with these activities. Besides the high share of respondents working in business services, a large share is working in the government and care sector. This sector mainly includes female respondents aged between 35 and 54 employed in the care sector. Important to note is that there is a difference in the occupational distribution between the survey answers and LISA data, which is a dataset on all companies in the Netherlands (in this case only self-employment companies are used). This is mainly caused by the distribution method of the survey which has been discussed in the previous paragraph. The effects of this distribution are that occupations that are more likely to have contact details online are overrepresented, like the business service sector. However, this group is also most likely to include footloose self-employed that migrate to Southwest-Frisia because of the residential climate (Bijker & Haartsen, 2013; PBL, 2010).

Figure 19 | Job distribution LISA data on self-employed and respondents (LISA, 2016)
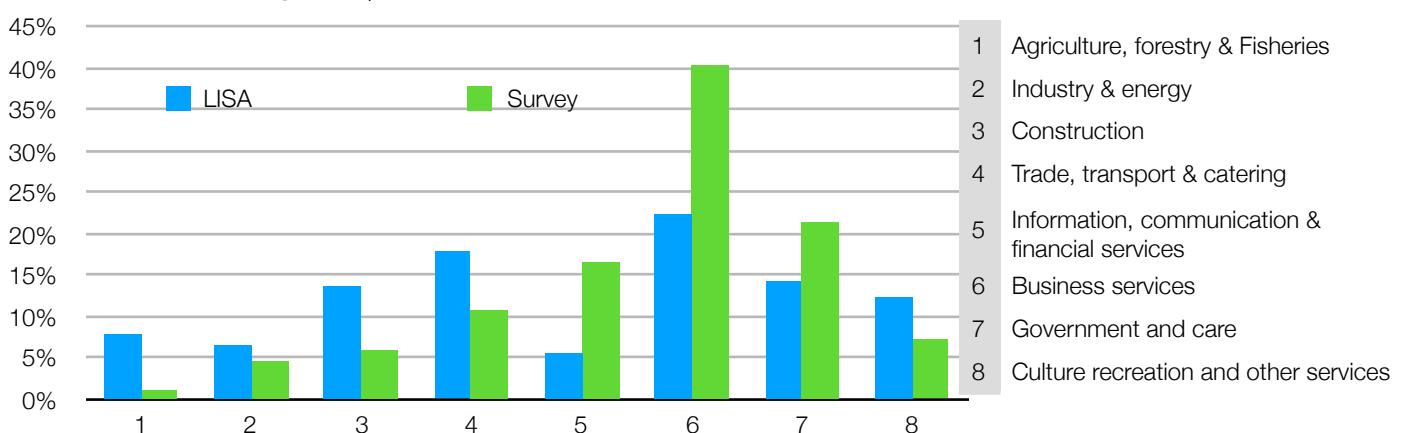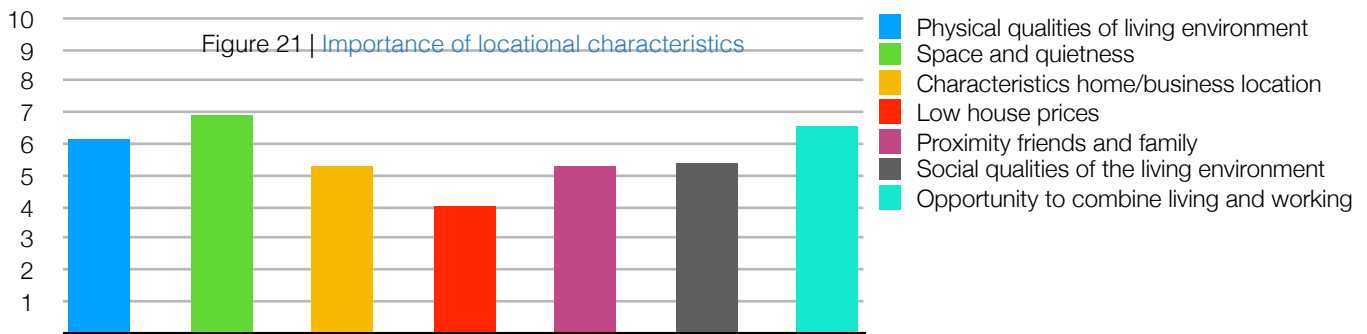
Second, we will discuss the migration patterns of the respondents. Only 37% of the respondents were brought up in Southwest-Frisia and 35% of the respondents were brought up outside of the Northern part of the Netherlands. Aggregating this data we can say that 44% of the respondents were brought up in Frisia and 56% was brought up outside Frisia. This means that a high share of respondents is not originally from Frisia, which is an interesting characteristic for this research as these might be the footloose self-employed. Respondents who are brought up outside Frisia are prone to be self-employed who moved to Southwest-Frisia because of the locational characteristics. This will be more thoroughly discussed after the self-employment profiles have been identified in paragraph 6.2.

Third, respondents were asked to grade the importance of motivations for becoming self-employed, the grade 1 meaning not important to them, and 10 very important. The highest score is given to flexibility, which was expected as it is one of the most prominent characteristics of self-employment (Figure, 20). Flexibility is often associated with entrepreneurial self-employment, thus the high score suggests a presence of entrepreneurial self-employment (Lomax, 2017). The two least important motivations for becoming self-employed are dismissal and not being able to find a job. These two motivations are linked to the refugee effect which is associated with necessity self-employment, strengthening the argument that there are more entrepreneurial self-employed (Thurik et al., 2008). The refugee effect can be observed when subdividing the motivation dismissal between respondents who started their business during the economic crisis and those who did not (between 2008 and 2016). On average, respondents who started their business during the crisis graded dismissal one point higher than those who did not start their business during the crisis.

Figure 20 | Motivations for becoming self-employed

- Flexibility
- Income
- Being able to do it better yourself
- No longer want to work for a boss
- Dismissal
- Not able to find a job
- Positive experiences other self-employed

Fourth, the most influential characteristics for locating in Southwest-Frisia will be discussed. Respondents were, just as with the motivations, asked to grade characteristics on a scale from one to ten. The highest graded characteristic is space and quietness (Figure 21). This fits the rurality of Southwest-Frisia. It is expected the physical qualities of the living environment would be graded most important because the region has one of the most attractive rural landscapes of the Netherlands (Buijs et al., 2019). Overall, the three most important characteristics fit the hypothesis that the self-employed in Southwest-Frisia value the residential climate.

Figure 21 | Importance of locational characteristics

- Physical qualities of living environment
- Space and quietness
- Characteristics home/business location
- Low house prices
- Proximity friends and family
- Social qualities of the living environment
- Opportunity to combine living and working

Taken the above into account we can state that the self-employed in Southwest-Frisia value the physical qualities and space and quietness of the region, two indicators that are related to the high-residential climate. According to the survey data, the self-employed that are attracted to the region are most often higher educated of middle and older age and work in knowledge-intensive sectors.

6.2 Identifying self-employment profiles

The second step of this chapter is identifying the self-employment profiles. The survey answers to the questions on the motivations to enter self-employment, derived form the literature in chapter 2 and 3, are used as input. A factor and cluster analysis are used to identify the profiles.

Factor analysis

Factor analysis is a statistical tool that looks if there are variables that cling together, suggesting that they are correlated. In this case, exploratory factor analysis is applied, meaning no a priori assumption about relationships among factors is made. In the analysis, oblique rotations are used, considering it is expected that the different variables are correlated to each other, as regularly is the case in social sciences. This research wants to identify self-employment profiles based on the incentives of workers to enter self-employment. Hence, the survey answers to the slider question on motivations for becoming self-employed are used as input.

The factor analysis includes all slider questions on motivations for becoming self-employed:
- Flexibility
- Income
- Doing it better yourself
- Not working for a boss
- Dismissal
- Cannot find wage-employment
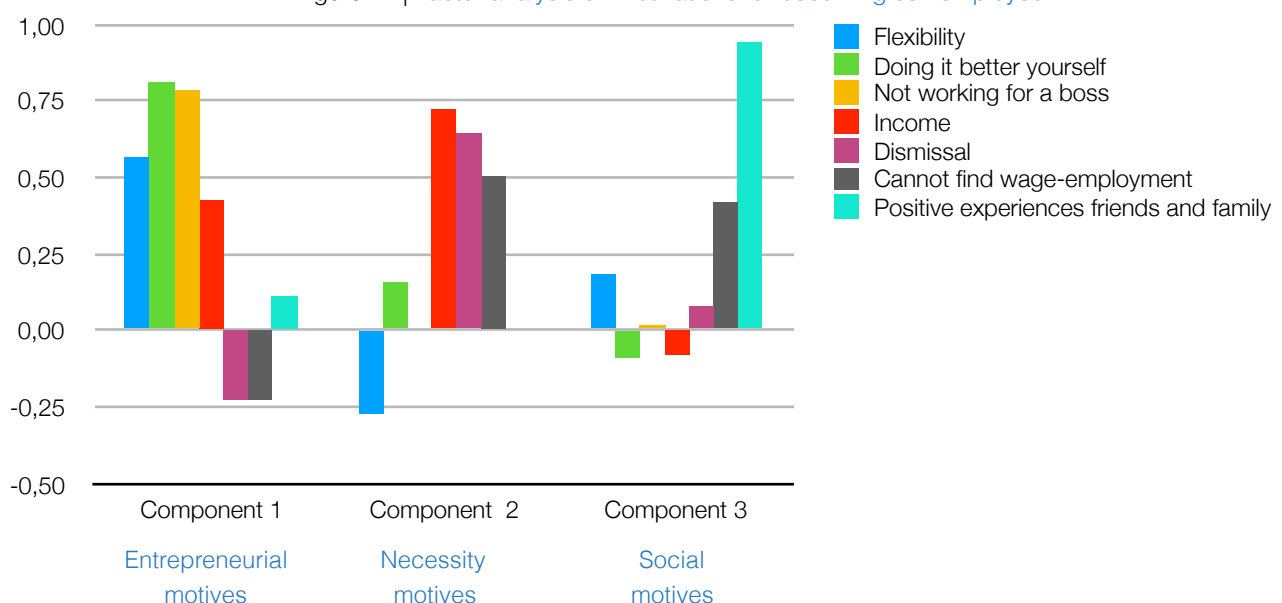- Positive experiences friends and family

In total two K-means Factor analyses were executed. The first Factor analysis created two components, both with an eigenvalue greater than one. The second analysis created three components of which one had an eigenvalue lower than one (0,937). The second Factor analysis is of importance even though the eigenvalue of the third component is lower than one. The reason

why this Factor analysis is included is that Scree Plot shows a point of inflection after the third component, moreover, the total variance explained is much higher for this Factor analysis.

Both Factor analyses have a determinant of 0,472, confirming that the indicators are related. The Kaiser-Meyer-Olkin measure of sampling (KMO-test) both have a value of 0,610. This measure varies between 0 and 1, and values closer to 1 are better. A value of 0,5 or 0,6 is a suggested minimum. This means that the KMO-test value is low, but it can be used. Both Bartlett's Test of Sphericity have a p-value of 0,000. This tests the null hypothesis that the correlation matrix is an identity matrix. An identity matrix is a matrix in which all of the diagonal elements are 1 and all off-diagonal elements are 0. This null hypothesis needs to be rejected, which is possible in both Factor analyses. Combing the test results above, we can state that the Factor analyses are useful and can be used for interpretation.

Only the results of the second factor analyses will be discussed below, as the results of this factor analysis will be used for this research. The reason for this is because, combined with the cluster analyses, this factor analysis gave the most meaningful results. The Factor analysis creating two components could only subdivide three clusters in the cluster analysis, while the Factor analysis creating three components could subdivide four clusters. These four clusters give an overall better overview of the self-employment profiles and are thus used for the analysis. The results of the first factor analysis, creating two components, can be found in appendix 2, just as the other cluster analyses that have been executed (appendix 3).

As mentioned the second Factor analysis creating three components is more meaningful and will be used in the analysis, as is further elaborated in the coming section and appendix 3. This factor analysis created three components of which the first two have an Eigenvalue greater than 1 and the last one not. These three components together account for 61,73% of the total variance, which is a fair amount. The first component includes the motivations; (i) Flexibility, (ii) Doing it better yourself, (iii) Not working for a boss and (iv) Income. The second component includes; (i) Income, (ii) Dismissal, and (iii) Cannot find wage employment. The third component includes; (i) Cannot find wage-employment and (ii) Positive experiences friends/family.

Figure 22 | Factor analysis on motivations for becoming self-employed

In this Factor analysis (figure 22), we see besides the more entrepreneurial- and necessity-driven self-employment motives (components 1 and 2) a component that includes positive experiences of friends and family and cannot find wage employment. This third component reveals a motive for becoming self-employed that was not expected. Apparently there is a group that entered self-employment that had difficulties finding a job and where influenced by the experiences of their social environment to start-up their own business.

To interpret the Cluster analysis in the next section it is vital to first identify the different components of the Factor analysis since they are used as input.

The components are identified as:
- Component 1: This component includes the motivations (i) Flexibility, (ii) Income, (iii) Doing it better yourself, (iv) Not working for a boss. These motivations are, according to the literature, linked to entrepreneurial motives (Lomax, 2017). Hence, this component is identified as entrepreneurial motives.
- Component 2: This component includes the motivations: (i) Income, (ii) Dismissal, and (iii) Cannot find wage employment. These motivations are, according to the literature, linked to the refugee effect and necessity motives (Lomax, 2017). Hence, this component is identified as necessity motives.
- Component 3: This component includes the motivations (i) Dismissal, but mostly (ii) Positive experience friends and family. Hence, this component is identified as social motives.

Cluster analysis

We have already seen that we can use factor analysis to group variables according to shared variance. In Factor analysis, we take several variables, examine how much variance these variables share, how much is unique and then 'cluster' variables together. In this section we will focus on Cluster analysis, which is an exploratory analysis that tries to identify structures within the data. It tries to identify homogenous groups of cases if the grouping is not previously known. Not only does Cluster analysis match every respondent to a cluster, but Cluster analysis also allows the researcher to determine the number of clusters that are composed. In this section we will only discuss one of the four Cluster analyses done in this research, as this is the one used for the further analysis. The other cluster analyses and their interpretation can be found in appendix 3. Also appendix 3 goes deeper into the changes in the cluster composition between the various clusters.

Figure 23 | Cluster analysis 4 clusters on 3 component factor analysis
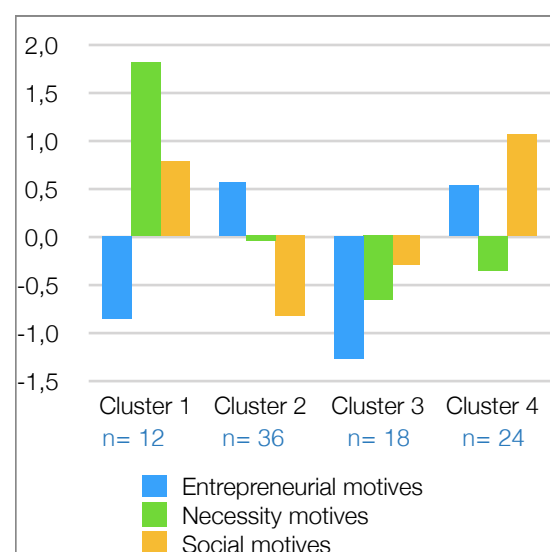
The Cluster analysis used in this research identified four clusters. As we can see in Figure 23:
- Cluster 1 shows self-employed that value necessity and social motives most.
- Cluster 2 shows self-employed that only value entrepreneurial motives.
- Cluster 3 shows self-employed that value every motive less.
- Cluster 4 shows self-employed that value entrepreneurial and social motives.

Having conducted four different Cluster analyses, in the end four various self-employment profiles have been identified. The Cluster analysis with four clusters is the most meaningful as it shows a more complete image of the self-employment profiles, compared to the other Clusters analyses, that created less clusters. Each cluster still includes enough cases and the effect of the different motivation components derived from the Factor analysis are larger, compared to the other cluster analyses. The next step is to take a closer look at the profiles and see who these self-employed are. In the next subchapter, the different profiles will be interpreted and connected to the literature.

6.3 Interpreting self-employment profiles

The third step of this chapter is to interpret the self-employment profiles that were indented in the previous section. The profiles are interpreted by comparing the survey answers of the self-employed belonging to a specific profile to the literature of chapter 2 and 3.

The Cluster analysis that created four clusters is used for interpretation. To interpret and generalise the self-employment profiles the answers to an array of survey questions will be compared. These survey questions are chosen because they, according to the literature in chapter 2 and 3, are key indicators for self-employment profiles. These survey questions and their answer composition can be found in Table 3. Additionally, answers to survey questions relating to the residential climate and its importance are compared. All different clusters are identified and have been given an appropriate name that is discussed and elaborated in the paragraph.

Table 3 | Survey answers per cluster

		Total (n=90)	Cluster 1 *Necessity* (n=12)	Cluster 2 *Average* (n=36)	Cluster 3 *Footloose* (n=18)	Cluster 4 *Locals* (n=24)
Age	18-34	8,8%	8,3%	2,8%	5,6%	**20,8%**
	35-54	54,4%	**58,3%**	**58,3%**	44,4%	54,2%
	54-75	36,6%	33,3%	38,8%	**50,0%**	25,0%
Gender	Men	52,2%	**75,0%**	47,2%	50,0%	50,0%
	Women	47,8%	25,0%	**52,8%**	50,0%	50,0%
Education	Primary & Secondary vocational	22,2%	25,0%	16,7%	11,1%	**37,5%**
	Higher professional	56,7%	**66,7%**	58,3%	50,0%	58,3%
	University	21,1%	8,3%	25,0%	**44,4%**	4,2%
Location of upbringing	Frisia	57,8%	58,3%	58,3%	33,3%	**70,8%**
	Elsewhere	42,2%	41,7%	41,7%	**66,7%**	29,2%
Important markets	Frisia	6,9	6,6	6,5	6,1	**8,0**
	North Netherlands	5,5	3,8	5,4	5,8	**6,2**
	Netherlands	5,3	4,8	5,4	**5,8**	4,9
	International	3,4	2,9	3,5	**4,0**	3,1
Important characteristics	Physical qualities	6,2	5,9	6,2	5,7	**6,8**
	Space and quietness	7,0	7,1	6,9	6,8	**7,3**
	Home/business location	5,3	4,9	5,6	5,0	**5,8**
	Low house prices	4,0	4,0	3,6	3,6	**4,9**
	Proximity friends & family	5,3	6,6	5,5	2,7	**6,8**
	Social qualities	5,4	5,9	5,5	3,9	**6,2**
	Combine living and working	6,6	6,4	**6,8**	5,7	6,6
Residential location most important	No	38,9%	**66,7%**	36,1%	27,8%	37,5%
	Yes	61,1%	33,3%	63,9%	**72,2%**	62,5%
Growth ambition	Revenue	5,7	6,2	5,2	5,3	**6,4**
	Employees	1,6	1,5	1,2	1,5	**2,1**
	Exports	1,7	1,2	1,4	1,9	**2,2**
	Innovation	5,2	5,3	4,6	4,4	**6,5**
Importance internet	No	37,8%	**66,7%**	27,8%	27,8%	45,8%
	Yes	62,2%	33,3%	**72,2%**	**72,2%**	54,2%

Necessity self-employed

Cluster 1 is identified as necessity self-employed. This profile takes up 13,3% of all respondents, making it the smallest profile. The main reasons why this profile is identified as necessity self-employed are the motivations for becoming self-employed, necessity motivations being by far most important to this cluster, and additionally most important compared to other clusters. The necessity motivations are composed of the motivations (i) Income, (ii) Dismissal, and (iii) Cannot find wage employment. These motives are inherently related to necessity self-employment. Necessity self-employed often become self-employed out of monetary reasons, hence income is important to them (Lomax, 2017). Block and Sandner (2007) argue necessity self-employed have a low chance of finding wage-employment, causing them to enter self-employment. Additionally, job loss is strongly associated with entry into self-employment, particularly in less desirable forms of self-employment (Moulton & Scott, 2016). The entrance into self-employment following dismissal or not being able to find wage-employment is called the refugee effect (Thurik et al., 2008).

The refugee effect likely played a role in the motivations to become self-employed in this cluster. This argument is strengthened because the entrepreneurial motivations for becoming self-employed (Flexibility, Doing it better yourself and Not working for a boss) are less important to this group.

Taken the answers to the survey questions of the necessity self-employed into account, we can recognise interesting characteristics. Most necessity self-employed are male (75%). For men, monetary reasons are more important, which is in line with the results of the analysis (Geogrellis & Wall, 2004). In terms of age, education, and location of upbringing we do not see any exceptional characteristics. According to the literature, it would be expected that necessity self-employed have a lower educational level, but this appeared not to be the case. Although the level of university-educated necessity self-employed is lower than average, the differences are not large. Two characteristics in which the necessity self-employed do stand out are the importance of residential location and the internet. Compared to the other clusters, necessity self-employed perceive residential location more often less important (66,7%). Instead, they perceive proximity to the market more important or they value both equally. This is coherent to necessity self-employed, considering they are self-employed because they have to, not because they want to. Being located near the market makes earning money easier, hence, they find this more important than the residential location. Additionally, necessity self-employed are less dependent on a fast internet connection. This is as expected since internet dependence is associated more with entrepreneurial self-employment profiles, like the footloose self-employed (Lomax, 2017).

Average/passive self-employed

Cluster 2 is identified as average/passive self-employed. This group makes up 40,0% of all respondents, making it the largest profile. According to the literature, the large share of this group is not unusual. Hurst and Pugsley (2010) showed that the vast majority of US small businesses do not innovate, do not want to innovate, do not significantly grow in size and do not want to expand. Although real passive self-employment is often related to workers that are monetary driven, this profile does not value income al lot, since necessity motives are less influential to them. Average/passive self-employed are attracted to self-employment mostly because of entrepreneurial motivations. They think they can better do it themselves, do not want to work for a boss and like the flexibility. These motivations fit the general incentives for entering self-employment mentioned by Lomax (2017) who says self-employment allows you to work; (i) when you want, (ii) where you want, (iii) how much you want, and (iv) without instructions from above.

The average/passive self-employed are considered average because there are only small differences between the answers of all respondents and the respondents belonging to this profile. This is somewhat expected, as they are the largest group the mean always tends to this group. There is one interesting difference that is of special importance to this cluster. This difference lies in the growth ambition. Average/passive self-employed, on average, graded all growth ambition questions lower. They are the group with the lowest growth ambition, corresponding with the idea that passive self-employed are workers without any entrepreneurial intentions (Santarelli &Vivarelli, 2007; Faggio & Silva, 2014).

Passive self-employment is hard to measure as one needs to look closely at the incentives for the worker to become self-employed. Passive self-employment probably covers a large share of self-employed, including average, necessity and false self-employed. Because they cover such a large share of self-employed they should be taken into account when making policy. Faggio and Silva (2014) distinguish between 'innovative' and 'replicative' self-employed. They suggest that only innovative self-employed are key to an economy's long-run success by supplying new ideas. Conversely, replicative self-employed predominantly respond to local demand and growing population and are therefore symptoms of a growing economy rather than causes. Nonetheless, these average/passive self-employed are of importance to the economy of a region, the hard-working, motivated SME entrepreneurs are the driving force behind the Dutch economy (Kamp, 2014). Average/passive self-employed might not be the most exceptional group of self-employed, but they take up a large share and thus should be given appropriate attention.

Footloose self-employed

Cluster 3 is identified as footloose self-employed. This group makes up 20,0% of all respondents. Looking at the incentives of footloose self-employed to enter self-employment, we see an exceptional pattern. Footloose self-employed graded every motivation for becoming self-employed less important than the average. Hence, it can only become clear who these self-employed are when looking closer to their survey answers.

The main reason why these respondents are defined as footloose self-employed has to do with their location of upbringing. In total 66,7% of them are brought up outside Frisia. This share is by far the highest among all clusters. Additionally, footloose self-employed grade the national and international markets more important than the other clusters and they grade the Frisian market less important. This shows that these self-employed have a larger catchment area and are more focused on regions outside Frisia. A third indicator used for the identification of this group as footloose self-employed is the importance of the internet. In total 72,2% of the footloose self-employed answered they are dependent on a fast internet connection for their business operations. E&E advies (2012) researched cottage industries in the north of the Netherlands and they suggest that a share of self-employed chooses to live further from the market and use the internet for their connection to the market. These footloose self-employed potentially use vacant farms and other buildings in rural areas as home and office to escape from the busy city, hence the importance of the internet is a characteristic that can be used to identify footloose self-employed (PBL, 2010; Bijker & Haartsen, 2009).

The footloose self-employed mostly consists of elderly aged between 54 and 75 years old. This age group accounts for 50,0% of the respondents this cluster, while it only accounts for 36,6% of the total sample. According to the literature, a high share of elderly self-employed could indicate necessity driven self-employment. Moreover, elderly self-employed appear to fail more often and suffer from the lower social security of self-employment (Nationale zorggids, 2018; Kbo-pcob, 2018; Volkskrant, 2014). However, not every elderly self-employed is destined to fail. Most of the time elderly self-employed possess a lot of experience and capital to sustain their business, giving them an advantage over younger self-employed. Looking at the educational level of the footloose self-employed we see that the footloose self-employed have the highest share of university-educated (44,4%) and the lowest share of primary and secondary vocational educated (11,1%).

This high educational level makes it likely that the footloose self-employed posses a lot of experience, have more knowledge of self-employment and are thus less likely to fail. Additionally, higher education is associated with entrepreneurial self-employment (Lomax, 2017).

Migrating to popular rural regions is often linked to higher educated who have a higher income (Bijker, 2013). Bijker and Haarsten (2009) suggest that these higher educated are attracted to popular rural regions because of their attractive residential climate. Taken this into account, the footloose self-employed are expected to value the locational characteristics and the residential climate more than other self-employed. This is indeed the case with 72,2% of the footloose self-employed answered residential location is most important to them. Interestingly, the grades footloose self-employed give on the importance of locational characteristics are all lower than average. This could be explained by the fact that footloose self-employed give lower grades in general, in like manner, they also graded all motivations for becoming self-employed lower than average.

Young entrepreneurial locals

Cluster 3 is identified as young entrepreneurial locals. This group makes up 26,7% of all respondents. Respondents in this group are identified as young entrepreneurial locals as they are; (i) young, (ii) mostly brought up in Frisia, and (iii) have high growth ambitions. First, we will discuss their motives for becoming self-employed. The young entrepreneurial locals have the highest influence of social motives among all clusters, moreover, entrepreneurial motives are important but to a smaller extent. Social motives assign most importance to positive experiences of friends and family as motivation for becoming self-employed, but also not being able to find a job is of importance.

We already identified that the respondents belonging to this cluster are young. In total 20,8% of them is aged between 18 and 34, which is much higher than the total average (8,8%). Moreover, the share of respondents aged between 54 and 75 is the lowest compared to the other clusters. Looking at the educational level, the young entrepreneurial locals are not highly educated. 37,5% of them have a primary or secondary vocational study, which is considerably higher than the total average (22,2%). Additionally, only 4,2% of them have a university education, which is very low compared to the total average (21,1%). According to the literature, a low educational level is correlated with necessity self-employment (Lomax, 2017). However, the motivations for respondents to become self-employed do not suit necessity self-employment. Finally, the reason why this profile is identified as locals is that 70,3% of them are brought up in Frisia, which the highest share among all profiles. Moreover, the young entrepreneurial locals have a very regional focus, grading the importance of Frisia as a catchment area with an 8,0, which is high compared to the 6,9 total average. Although some indicators, such as education, suggest this cluster consists of necessity self-employed it is believed that this is not the case. Necessity self-employment would indicate that the workers enter self-employment out of necessity and not because they want to. However, necessity motives are less important to this profile. In contrast, social and entrepreneurial motives are of importance.

The young entrepreneurial locals grade growth ambitions more important compared to other clusters. On average, innovation growth is graded most important to them. Innovation is often

associated with entrepreneurial self-employed (Parker, 2009). This also fits the research by Koveos (2016) who mentions young entrepreneurs are more likely to intend to increase their workforce in the coming years. A final interesting characteristic of this profile is that they grade the importance of locational characteristics the highest. This could be because a large share of them was brought up in Frisia, causing them to appreciate the region more than others.

Influence of the residential climate

The main focus of this research is on the influence of the residential climate and the effect it has on the different profiles. It was expected that the attractive residential climate in Southwest-Frisia attracts footloose self-employed. Although multiple pieces of research suggest this might occur, no conclusive studies have been done about it. This research, however, does look at the influence of the residential climate. From the analysis, one group correlates strongly with this assumption. Hence, this profile is identified as footloose self-employed. They make up 20% of the respondents which is a generous amount of the sample. The footloose self-employed are mostly brought up outside Frisia and perceive the residential location most important, correlating with the hypothesis of self-employed moving to Southwest-Frisia because of the attractive residential climate. Nonetheless, other profiles also show characteristics that reveal the importance of the residential climate.

The average/passive self-employed and the young entrepreneurial locals also answer they find the residential location most important. Overall, space and quietness, something that is typical of a rural region, has been graded the most important locational characteristic, as opposed to characteristics that relate more to good business locations. Hence, we can state the attractive residential climate is influential in Southwest-Frisia. The hypothesised profile of footloose self-employed is evident in the region. Moreover, other profiles value the residential climate and it is often perceived as more important than economic locational characteristics. The only exception to this being the necessity self-employment profile.

Conclusions

As we can see the cluster analysis shines a light on four different self-employment profiles that are all differently influenced by the residential climate. We can state that the sample only includes a small amount of necessity driven self-employed. Literature suggested this share would be higher in rural regions, however, Southwest-Frisia is not just any rural region. It is one of the best rural regions to live in the Netherlands with highly valued locational characteristics. This attractive residential climate did not only caused the necessity self-employment share to be low, but it also attracted a share of footloose self-employed. At the start of this research, it was already expected that footloose self-employed moved to Southwest-Frisia to start-up or continue their self-employment business. Another interesting group are the young entrepreneurial locals. These self-employed are mostly local workers with a low to medium educational level and became self-employed partially because friends and family recommenced it to them. This is an interesting profile that did not occur in the literature, nevertheless is takes up the second-highest share of the sample. The importance of social motives might indicate an entrepreneurial climate that was started by the footloose self-employed that migrated to the region.

7. Conclusion

In this chapter, the research questions are answered, combining the data and literature mentioned in the previous chapters. Additionally, we will reflect on the research process and give suggestions for further research in the discussion.

7.1 Conclusions

The main question of this research is: "How do different self-employment profiles in Southwest-Frisia respond to the residential climate?". Throughout this research we have worked on building a method for the identification of self-employment profiles, identifying and interpreting these self-employment profiles and examining how diverse self-employed respond to the residential climate in Southwest-Frisia. The main question will be answered below, using the three sub-questions. Moreover, we will go beyond the case of Southwest-Frisia and make more general statements about the effect of an attractive residential climate on self-employment.

Characteristics of self-employment profiles

The first sub-question is: "*What are the characteristics of different types of self-employment profiles? And, how do the motivations and aspirations differ among these profiles?*".

As a measure for the identification of self-employment profiles, this research focused on the motivations and aspirations of self-employed. According to the literature review (Chapter 2 and 3), motivations and aspirations are good indicators to identify self-employment profiles. The motivations of self-employed tell something about which characteristic of self-employment they value. As self-employment is a broad concept, the understanding which characteristics of self-employment attracted them says a lot about the self-employed. Whereas the motivations say something about the past, why they entered self-employment, the aspirations say something about how they see their future. This too says a lot about the type of self-employed, and can also indicate further economic effects they will have. From the analysis of the survey three types of motives are derived; (i) entrepreneurial, (ii) necessity and (iii) social.

Entrepreneurial motives contain the motivations; flexibility, doing it better yourself, not working for a boss and income. Necessity motives include the motivations; income, dismissal and cannot find wage-employment. Social motives include the motivations; cannot find wage-employment and positive experiences other self-employed. Especially social motives were not discussed in literature very often. Social motives, however, show that the social environment can also be of importance for becoming self-employed, instead of only personal motivations.

These motives are derived from the survey answers and thus reflect on the motivations of self-employed in an attractive rural area. In a less attractive rural area or urban environment it is possible that the motivations differ, as self-employed in urban and rural areas show different characteristics.

It is good to consider that these motivations are derived from this specific, attractive rural, location and do not necessarily reflect on the whole of the Netherlands, as each region contains different self-employed. Rural areas often show more cohesion between inhabitants of villages, as opposed to large cities. Hence, social motivations might be more important in rural areas.

Composition self-employment profiles

The second sub-question is: "*What are the self-employment profiles in Southwest-Frisia, and what is their composition?*".

From the analysis, four profiles are identified. These profiles are, ranked according to their size; (i) average/passive self-employed, (ii) young entrepreneurial locals, (iii) footloose self-employed and (iv) necessity self-employed. These profiles and their composition are specific to Southwest-Frisia, and from a more general notion to attractive rural areas. For the interpretation of these results, one must keep in mind that the survey mostly include higher-educated self-employed, as it was not possible to contact self-employed without contact information online. Hence, the share of necessity self-employed might be higher than the survey results suggest.

The main hypothesis of this research was that the attractive residential climate pulled footloose self-employed to the region, which may have started an entrepreneurial climate. From the self-employment profiles mentioned above, we can argue that both are the case. The third-largest group are the footloose self-employed and the second largest group are the young entrepreneurial locals. Although these groups are not the largest in size, the fact that they are identified as individual profiles indicates their importance. From this analysis, we can observe that it is the case that a share of footloose self-employed chooses to locate in attractive rural areas. As they are not bound by geographical location they locate in an area of their choice. The second step of the hypothesis is that footloose self-employed create an entrepreneurial climate that stimulates locals to enter self-employment. Although this causal relationship is not proved by this research. We can observe that there is a rather large group of locals with a high growth ambition that became self-employed out of social motives, indicating an entrepreneurial climate. This high-growth ambition demonstrates their economic potential. Interestingly, as we have seen in chapter 5, Southwest-Frisia has seen one of the largest GDP growths in the Netherlands. The fact that self-employment accounts for almost 13% of the workforce indicate they most likely contributed to this GDP growth. Looking at the other two profiles. The necessity self-employed make up the smallest group. This was also expected for an attractive rural region, which often has a better economic environment. Finally, the passive/average self-employed make up the largest share. The literature also suggested this, as this group nearly always makes up the largest share.

We can conclude that the attractive residential climate indirectly created an entrepreneurial climate. This means that for attractive rural regions it can be a good strategy to attract footloose self-employed, as they create an entrepreneurial climate. This entrepreneurial climate encourages self-employment among locals to rise. Especially these locals are young and have high-growth ambitions, which can lead to innovation and economic growth.

Influence of the residential climate

The final sub-question is: "*What is the influence of the residential climate on the self-employment profiles in Southwest-Frisia?*".

The goal of this research is to see what the effect of the residential climate is on various self-employment profiles. As we have seen in the previous paragraph the attractive residential climate in Southwest-Frisia influenced the composition of self-employment profiles. The attractive residential climate attracts footloose self-employed. This profile is most influenced by the residential climate. Additionally, the profile least related to attractive residential climate, necessity self-employed, is the smallest. These self-employed value the economic characteristics of a region more than attractiveness.

Although every self-employment profile responds differently to the attractive residential climate, overall, more than 60% of the respondents indicated residential location was more important to them than proximity to the market. This shows most self-employed value the residential climate, not considering their profile. Additionally, the physical qualities of the living environment and space & quietness were graded the most important locational characteristics. These are two key characteristics that fit a rural region like Southwest-Frisia. The region has, according to research in chapter 5, some of the most attractive rural areas in the Netherlands, explaining the importance of the physical qualities of the area. Additionally, Southwest-Frisia is one of the least densely populated areas in the Netherlands, explaining the importance of space and quietness. It is interesting to see how these two key characteristics of the Southwest-Frisia can directly be related to the survey answers of the respondents. The fact that these characteristics were graded most important overall, indicates the influence of the attractive residential climate.

Comparable attractive rural areas in the Netherlands can use there residential climate as an asset. From this research, it becomes clear footloose self-employed are attracted to these regions. The footloose self-employed spur an entrepreneurial climate. This encourages youngsters with high ambitions to enter self-employment. This has two positive effects, as young people often migrate away from rural areas, the entrepreneurial climate may persuade them to stay. Additionally, since this group has high-ambitions, they can create future growth. Also, the presence of the footloose self-employed has positive effects. These self-employed are higher educated and have more experience. This causes them to bring knowledge to the region, which they can spread to others. It could thus be a good policy strategy for attractive rural regions to invest in attracting self-employed.

7.2 Discussion and recommendations

In this research, a survey is used as a data collection method. A survey is a suitable method for obtaining specific yet comparable information about self-employed, which is used to identify and interpret the self-employment profiles. However, using a survey turned out to have some implications. When using survey data for statistical analysis an appropriate number of respondents is required. Especially when investigating self-employment profiles, each profile must be represented with a sufficient number of respondents.

As discussed, contacting self-employed turned out to be challenging. New privacy regulations of the European Union prohibits organisations to share contact details to a third party. Although, in the end, enough respondents completed the research, only self-employed with contact information online are included in the sample. This naturally influenced the results. Whereas, a consultant is likely to have contact information online a self-employed working as a delivery person is less likely to have this. Comparing statistical data on self-employed with the sample we can observe some differences are caused by this issue. The most prominent being that self-employed in the sample have a higher educational level that one normally would expect. Higher educated self-employed have different characteristics compared to lower educated self-employed. Although this issue causes some implications with the interpretation, the survey is still meaningful. The main focus of this research is to examine the influence of the residential climate on different self-employment profiles. It is expected that the attractive residential climate attracted footloose self-employed to Southwest-Frisia. As we can see in the results this group is included in the sample. Nonetheless, one must keep in mind that the sample concentrated on higher educated when reading the results.

The results of this research created interesting questions for further research on this topic. First, this research concentrates only on the case of Southwest-Frisia. It would be meaningful to execute the same research for other regions, which would allow for comparisons. Southwest-Frisia is a rural region with a high residential climate, hence, it would be interesting to see how the results differ for a rural region with a low residential climate. This would enable us to see what the effect of the low residential climate is, and how this differs from a high residential climate. Also, a comparison with an urban region would be interesting. However, for this, the survey needs to be modified. A second subject that offers the potential for furthers research is the social motives for becoming self-employed. In current literature social motives are not given much attention, however, they appeared to be meaningful. Additionally, these social motives appeared of particular importance for the profile of young entrepreneurial locals. The social motives indicate an entrepreneurial climate in which self-employed are stimulated to enter self-employment by friends or family. I would be meaningful to study this motive and the profile of young entrepreneurial locals closer, to see how the entrepreneurial climate influenced them. A third suggestion for further research is to look at the migration patterns of the different self-employment profiles. The survey used in this research includes some questions about migration patterns and the results show these are meaningful for the identification of the profiles. It would be interesting to have in depth interviews on the migration behaviour of different self-employment profiles as this would give a deeper inside in how the attractive rural climate influenced the choice to migrate or not to migrate. This could support the conclusion of this research that attractive rural areas can benefit from attracting self-employed.

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Appendix 1: Survey questions

Inleidende vragen

1 Wat is uw leeftijd?

_____

3 Wat is uw geslacht?
- Man
- Vrouw
- Overig

4 Wat is uw hoogst genoten opleidingsniveau? (met of zonder diploma)
- Voortgezet onderwijs
- MBO
- HBO
- WO
- Zeg ik liever niet

5 Waar woont u?

_____

6 Waar is uw bedrijf gevestigd? (in geval van thuiswerken is dit dezelfde locatie als waar u woont)

_____

7 Werkt u thuis?
- Nee, nooit
- Ja, soms (1-3 dagen per week)
- Ja, vaak/altijd (4-5 dagen per week)

8 Waar bent u opgegroeid?
- Zuidwest-Friesland (huidige gemeenten Sùdwest-Fryslân en Fryske Marren)
- Friesland
- Noord-Nederland
- Elders;_____

9 Hoeveel ZZP bedrijven bezit u op dit moment?

_____

10 Is ZZP uw belangrijkste bron van inkomen?
Ja/Nee

11 Bent u, als ZZP'er, kostwinner van uw gezin?
- Ja
- Nee

- Ongeveer gelijk

Vragen over het bedrijf

12 Wat is voor u de directe aanleiding voor het starten van uw ZZP bedrijf?
_____

13 Heeft u het bedrijf zelf opgericht?
- Ja
- Nee, familiebedrijf
- Nee, overgenomen

14 Waneer hebt u dit bedrijf opgericht?

_____

15 Heeft u, voordat uw ZZP'er werd, in loondienst gewerkt? Zo ja, hoe lang?
- Nee
- Ja;_____

16 Welke omschrijving past het beste bij uw situatie toen u uw bedrijf oprichtte/overnam?
- In werkte in loondienst
- Ik was bezig met een opleiding
- Ik was net klaar met een opleiding
- Ik was al aan het werk als zelfstandige
- Ik had geen baan
- Ik had mijn oude baan verloren
- Anders:_____

17 Wat zijn de voornaamste redenen voor u om ZZP'er te worden? (slider vraag)
- Flexibiliteit/Vrijheid
- Inkomsten
- Het beter voor mijzelf kunnen werken dan in loondienst
- Niet meer onder een baas willen werken
- Ontslag
- Het niet kunnen vinden van een baan
- Anders;_____

18 Op schaal van 1 tot 10, hoe belangrijk zijn de volgende redenen voor het worden van ZZP'er voor u?
- Flexibiliteit
- Inkomsten
- Het beter zelf kunnen
- Niet meer onder een baas willen werken
- Ontslag oude functie
- Het niet kunnen vinden van een baan
- Positieve ervaringen, over ZZP'er zijn, van familie en vrienden

- Anders;_____

19 Welke producten/ diensten/ activiteiten verkoopt uw bedrijf?

_____

20 Had u al ervaring met deze producten/ diensten/ activiteiten. Zo ja, op weke manier?
- Nee
- Ja;_____

21 Waar komen deze producten vandaan?
- Maken wij zelf
- Regio (Friesland)
- Nationaal
- Internationaal
- Ik maak geen producten

22 Op schaal van 1 tot 10, hoe belangrijk zijn de volgende afzetmarkten voor u?
- Provincie (Friesland)
- Regionaal (Noord-Nederland)
- Nationaal
- Internationaal

23 Via welk kanaal verkoopt u hoofdzakelijk uw producten en/of diensten?
- Op het bedrijf
- Bij de klant
- Online (webshop, email, telefonisch)
- Anders;_____

24 Bent u voor uw bedrijfsvoering sterk afhankelijk van een snelle internetverbinding
Ja/Nee

Vragen over vestiging/locatiekeuze

25 Is het bedrijf op de huidige locatie gestart? Zo nee, waar was uw bedrijf hiervoor gevestigd?
- Ja
- Nee, namelijk _____

26 Op schaal van 1 tot 10, hoe belangrijk zijn de volgende redenen voor uw vestigingskeuze in Zuidwest-Friesland?
- Fysieke kwaliteiten leefomgeving
- Rust en ruimte
- Kenmerken van woning/bedrijfspand
- Lage vastgoedprijzen
- Nabijheid familie/vrienden
- Sociale kwaliteiten leefomgeving
- Mogelijkheid om wonen/werken te combineren

27 Wat is voor u belangrijker, woonlocatie of nabijheid van de afzetmarkt?
- Woonlocatie
- Nabijheid afzetmarkt
- Beide even belangrijk

Vragen over de bedrijfsvoering

28 Op schaal van 1 tot 10, wat is uw groeiambitie op de volgende terreinen?
- Omzet
- Aantal werknemers
- Export
- Innovatie

29 Is uw bedrijf actief in de lokale gemeenschap?
- Nee
- Ja, financieel (als sponsor o.i.d.)
- Ja, anders:_____

30 Zou u graag extra hulp willen krijgen bij de bedrijfsvoering van uw bedrijf, zo ja op welke manier?

_____

31 Heeft u nog verdere opmerkingen die u kwijt wilt over het zijn van ZZP'er?

_____

Appendix 2: Factor analysis

The Factor analysis creating two components is not used for further analysis in this research, yet it is was part of the developmental path that resulted to the factor analysis that is used. Both components in this analysis have an eigenvalue greater than 1. These two components together account for 48,34% of the total variance. This is not extremely high, nevertheless, it allows us to examine which motivations for becoming self-employed are correlated. Since this Factor analysis is using oblique rotations the pattern matrix is used for the interpretation. The results of the pattern matrix are visualised in Figure 24. The factor analysis created two different components. On one end, component 1 includes the variables (i) Flexibility, (ii) Doing it better yourself, and (iii) Not working for a boss. On the other end, there is component 2 that includes (i) Dismissal, (ii) Cannot find wage-employment and (iii) Positive experience friends and family. The only motivation that both have in common is income, which is relatively important for both components. The differences in motivations between the two components are interesting. As one would expect, the factor analysis reveals the difference between entrepreneurial and necessity self-employed motives. Component 1 includes motivations that fit what the literature describes as entrepreneurial self-employed and component 2 fits necessity self-employment motives (Lomax, 2017).

Figure 24 | Factor analysis on motivations for becoming self-employed
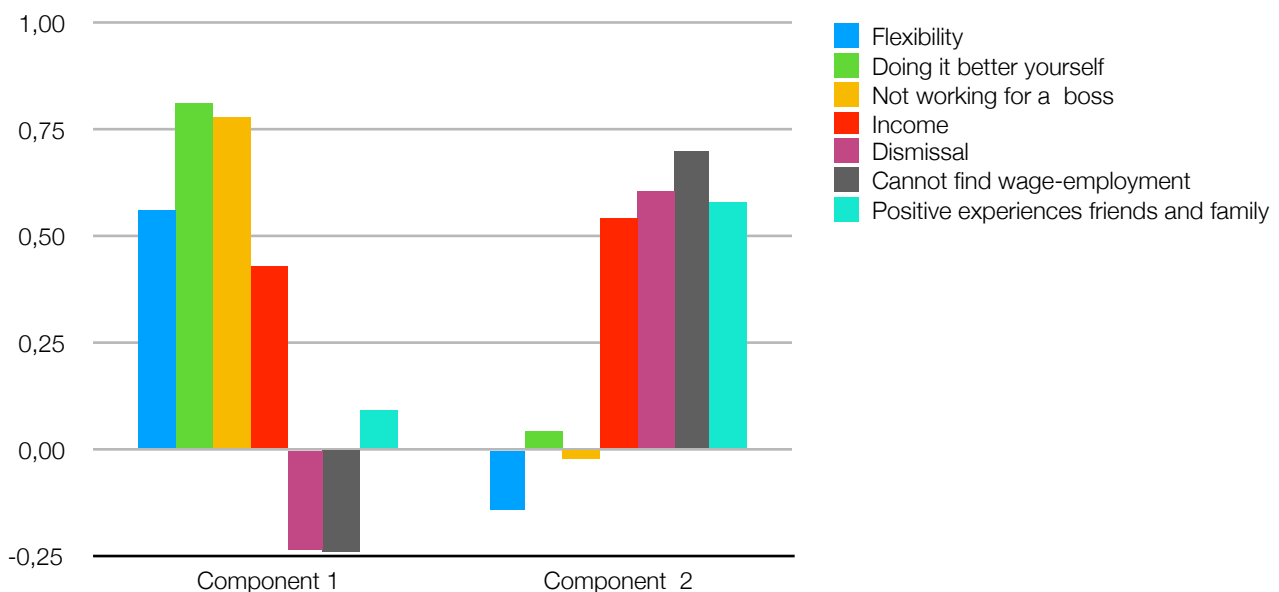
The components are identified as:

- Component 1: This component includes the motivations (i) Flexibility, (ii) Income, (iii) Doing it better yourself, (iv) Not working for a boss. These motivations are, according to the literature, linked to entrepreneurial motives (Lomax, 2017). Hence, this component is identified as entrepreneurial motives.
- Component 2: This component includes the motivations: (i) Dismissal, (ii) Cannot find wage-employment (iii) Income, and (iv) Positive experience friends and family. These motivations are, according to the literature, linked to necessity motives (Lomax, 2017). Hence, this component is identified as necessity motives.

Appendix 3: Cluster analyses

In this appendix the Cluster analyses that are not used in the results of this research are shown. Despite the fact that they are not used in the results, they still shows the path towards the analysis that is used and why that specific Cluster analysis is used.

The most generalised interpretation of self-employment profiles is a distinction between only entrepreneurial and necessity self-employed. This would mean that a cluster analysis creating two clusters should show this division and give a broad view of the composition of both profiles. The Cluster analysis based on the Factor analysis with two components was not significant, but the Cluster analysis based on the Factor analysis with three components is significant and is visualised in Figure 25. This cluster analysis reveals a cluster that clearly perceives necessity and social motives important and entrepreneurial motives less important. This cluster makes up 21% of the respondents. The other cluster, that finds entrepreneurial motives more important, makes up a much larger share (79%). However, the effects of the different motives in this second, entrepreneurial, cluster are much smaller, making the results

Figure 25 | Cluster analysis 2 clusters on 3 component factor analysis

not convincing. Since this second cluster takes up such a large share it is interesting to execute more Cluster analyses with more clusters to see if and how and if this large cluster subdivides into clusters where different motives have stronger effects.
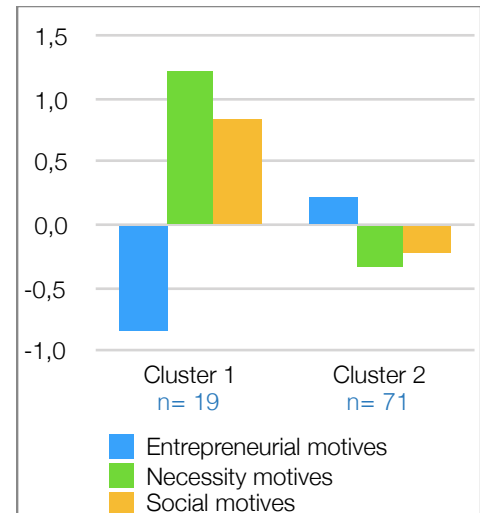
The Cluster analysis creating three clusters was executed for both the two and three components Factor analysis as input (Figures 26 and 27). Interestingly, both Cluster analyses show similar results. Cluster 1 even includes exactly the same respondents in both Cluster analyses. Cluster 2 and 3 are slightly different but show similar patterns. Moreover, it can clearly be observed that social motives are correlated to necessity motives when differentiating between three clusters. This is also the reason why the factor analysis did not differentiate between necessity and social motives when taken only the components with a KMO-value greater than one into account. In the previous section, we suspected that cluster 2 (Figure 25) would subdivide when the number of clusters was increased. We can see that this is the case. The first cluster is in all three Cluster analyses are more or less the same, although in the second Cluster analyses with three

Figure 26 | Cluster analysis 3 clusters on 2 component factor analysis

clusters the share of this cluster declines a little bit and the necessity motives become even more important.
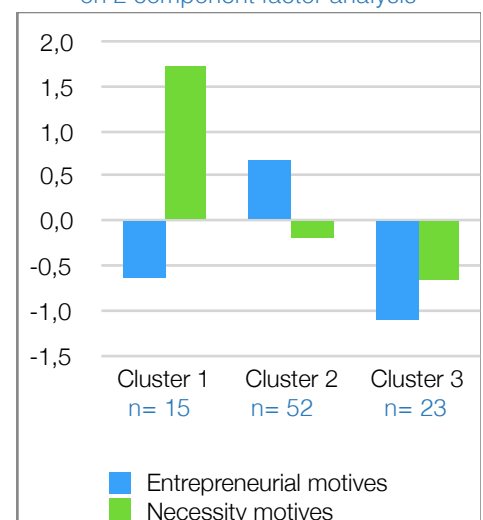
Cluster 2 in the Cluster analysis with two clusters (Figure 25) has more or less subdivided into two clusters in the Cluster analysis creating three clusters. In these analyses, cluster 2 contains respondents with entrepreneurial motives and cluster 3 contains respondents that find every motivation less important. Especially cluster 3 is interesting because they value each motivation lower. Although this cluster analysis shows interesting results, the necessity and social motivations are still correlated. Hence, a Cluster analysis with four clusters is created to see if these motivations become disconnected from each other, creating better insight into the self-employment profiles.

In the final Cluster analysis, four clusters are identified. This is the Cluster analysis used in this research. Since the goal is to see if necessity and social motives become disconnected this cluster analysis is only executed with the Factor analysis including three components as input. As we can see in Figure 28, cluster 1 still shows the same pattern with an emphasis on necessity motives. Interesting is that since the Cluster analysis with two clusters the pattern in cluster 1 has stayed the same, but the necessity motives have become stronger and the number of respondents has dropped. This shows that the clusters give an increasingly detailed and accurate representation of the self-employment profiles. Cluster 2 in figure 28 has changed quite a lot compared to cluster 2 in figure 27. Overall, respondents who perceived social motives important have left and moved to cluster 4, resulting in social motives being less important to cluster 2. Cluster

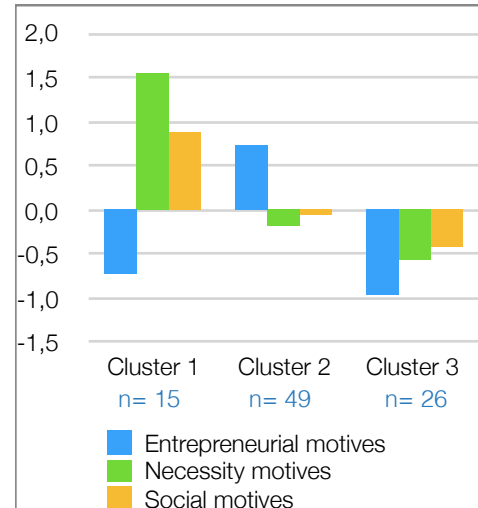Figure 27 | Cluster analysis 3 clusters on 3 component factor analysis

Figure 28 | Cluster analysis 4 clusters on 3 component factor analysis

3 has broadly stayed the same compared to cluster 3 in Figure 27. Nonetheless, the number of respondents has declined and entrepreneurial motives have become even less of importance. Cluster 4 is the new cluster and confirms necessity motives and social motives are not always connected. Respondents in cluster 4 do not value necessity motives, instead, they value entrepreneurial motives and, most of all, social motives. This is interesting because compared to the other cluster analysis this cluster shows a whole new self-employed profile that makes up quite a large share of self-employed.