

The accessibility to the Dutch housing market for Flex households

The interplay between flexible labour agreements, financial services
and the housing market.



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Abstract

The Netherlands is facing a lot of pressure on the housing market and the prices are increasing drastically. The accessibility to the housing market decreases and moving becomes harder. With the flexibilization of the labour market, more households face income uncertainty, which can affect their possibilities on the housing market. The accessibility of flex households to housing, are dependant of three markets which are connected to one another. These markets are: the housing market, the labour market and the financial market. To understand how these markets work from the point of view of flex households this paper aims to answer the question *“What are the effects of the flexibilization of the labour market on the accessibility for households on the housing market, working with a flexible labour agreement?”*. The research methods which will be used in order to answer the main question, are divided into two categories. First, a qualitative study will be conducted, this will be done through the use of literature study, source study and the use of interviews. After this is done the quantitative study will be conducted, which is a statistical study focused on the perceptions of the households whom are present in the housing market. The goal of this research is to give valuable insights in the understanding on how these markets together influence one another, and how these markets affect the flex households in their accessibility to housing. Concluding with recommendation for policy makers and households on how the accessibility and opportunities on the housing market can be enhanced.

Key words: labour agreements, housing market, financial market, flexworkers

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Part I: Introduction

1. Introduction to the topic

1.1 Problem statement

The use of flexible contracts in the Netherlands has increased a lot over the last years. Economists and international thinktanks made a case that there is a need for the flexibilization of the labour market, to make it easier for companies to cope with under used labourers (Dol & Boumeester, 2016). For companies this was very beneficial because firing employees who have a permanent contract is a very time and money consuming process. Especially if the employee is working a lot of years for the company. For employees, this means that the income insecurity and the chance of temporary unemployment are higher. These insecurities will have effect on the possibilities of obtaining a mortgage and a rental contract. Financial service providers and private lessors demand income security for giving out their products to the consumer. Housing associations do not have the income security as a criteria. The use of flexible contracts can therefore be problematic for households to move on the housing market, or to enter it. Specifically for starters in the age between 15 till 29 years, since they are the ones who get often a flexible contract (Sanders & Smulders, 2014).

The possibilities for households with a flexible contract, are further decreased because of the changes on the housing and financial market over the years. After the economic recession in 2008, the developments of new housing projects stopped or delayed (Elsinga, De Jong-Tennekes & van der Heijden, 2011). The minimal required amount of new built dwellings were not reached in the years after the recession, whereas the demand for housing continued to increase. In the years after, the quality and therefore the building costs increased, and the demand versus supply mismatch increased, leading to higher housing prices (Plantinga, Détang-Dessendre, Hunt & Piguët, 2013).

The financial institutions changed their policies which made it harder to obtain a mortgage. This was done in order to prevent a financial crisis from happening again and to prevent households of borrowing too much, which can result in financial problems (Kragh-Sørensen, 2020). Getting a mortgage with a flexible contract was already difficult and with the change of the requirements this became even harder for these households, making the owner occupied market inaccessible. Households are because of this forced to go to the rental market. The rental market is also under a lot of pressure, high rents are making it hard for households to find a house. Also on the rental market, the insecure contracts can hamper access to a rented dwelling, giving "flex" households a hard time on finding a suitable house.

Housing preferences start with the choice of a rental or owner occupied dwelling. Commonly, the research conducted on this topic, is seen from the perspectives of households with a permanent labour agreement. Households with a flexible contract are becoming more and more constrained in regard to the different markets. This research will focus on the possibilities of households to access or move on the housing market with flexible labour agreements. The focus will be on the interplay of the labour, financial and housing market and how they are connected with one another. The interaction and causalities will be investigated with the aim to get insights on the problem areas for these households. By finding the problem areas, operation and policy changes will be proposed to strengthen the positions of the "flex" households.

1.2 Literature review

1.2.1 View on the labour market and trends

The flexibilization of the labour market is not a standard trend which is seen by all the different countries. A lot of differences can be seen, which can be categorized based on the continents the countries are located on. Whereas in Europe there is a strong shift which results in the flexibilization of the labour agreements, in Japan there are labour agreements which are a "lifetime commitment to an organization (Oliveira & Holland, 2017). These lifetime commitments give stability to the labourer throughout his career, until he/she reaches the age of retirement (Jones & Seitani, 2019). With the lifetime employment the Japanese reversed the perception of the production process. This reverse is that for the production process the labour costs are fixed whereas the capital costs are flexible,

and the insider employee commitment is strengthened (Oliveira & Holland, 2017). The table below illustrates the differences of the production factors in the different production processes.

Flexible Production: Toyota Production System	Flexible Labour Market: Lindbeck-Snowier
Labour Fixed Cost	Capital Fixed Cost
Capital Variable Cost	Labour Variable Cost
Insider Employee Commitment	Minimal Employee Commitment
Lifetime Employment	Shorter Term Contracts
Profit Sharing	No Profit Sharing
Process Innovation Focus	Cost Reduction Focus
Fault Free Production	Similar/ Higher Fault Rate
Self-Direction	Other Direction

Figure 1: Changes in production factor (Oliveira & Holland, 2017).

For the South-American labour market it is not clear what the production factors are and how these are processed. For example, in Peru, there is high informality, which results in low transparency in the labour market, the law agreements are fragmented and the core labour standards are not good (Orbie, Van den Putte & Martens, 2017). So because of the low transparency and the problems of the labour law, the labour market in Peru and more South-American countries are not regulatable by the government. The labourers and companies are therefore the main drivers on how the labour market in these countries are regulated. The flexibilization which was wanted to be implemented in South-America should result in the decrease of economic inequality and increase of economic efficiency, but flexibilization within these circumstances would not have any effect (Posner, 2017).

So there are two examples given, one about the process of flexibilization, and therefore the importance of the status of the labour market, and one about the opposite of flexible labour agreements which are the lifetime employment agreements. For the European countries this flexibilization is stimulated and in highly developed countries such as the Netherlands there is a push in the flexibilization of the labour market and therefore flexible labour agreements. The labour market has a lot of impact on the economical and societal environments in a country and therefore is very important to manage in a proper way (Orbie, Van den Putte & Martens, 2017). The Netherlands are a frontrunner on the flexibilization of the labour market. According to Smits (2020) this flexibilization has also to do with the shrinking welfare state in the Netherlands. The Netherlands is considered one of the biggest welfare states of the world. However in recent years there is a shrinkage of the welfare state and an increase of wealth inequality in the Netherlands (Van Bakel & Frankema, 2017). The Netherlands changed from the Social Market Economy model towards the Anglo-Saxon model (Van Bakel & Frankema, 2017). The Social Market Economy model is more focused on the collective and balance and therefore treats the welfare state, government and the market as equal (Bakker, Evers, Hoven, Snelders & Weggeman, 2005). Whereas the Anglo-Saxon undervalues the welfare state and government and therefore ranks the free market higher than those which results in the higher amount of flexible labour agreements (Smits, 2020). Therefore, the political ideologies which represent the majority in the parliament can affect the course of the labour market.

In the Netherlands there is high formality of the labour market and good labour laws, which are created per different sector called the "collectieve arbeidsovereenkomst". This formality makes the Dutch labour market very transparent. This transparency makes it very clear to see the changes on the Dutch labour market. Therefore the Dutch labour market is very suitable to have predictions made on how the labour market will change for years to come. De Beer (2016) states that he foresees 10 trends which will change the labour market from the way it is now. Three trends which are in line with the flexibilization of the labour market are elaborated, which are (1) the increase of part time workers (2) the increased amount of time people work and the increase of the labour supply and (3) the increase of labourers with flexible labour agreements.

The increase in more part time contracts is because of the desire of labourers to become more flexible in their week (de Beer, 2016). For the employees this is a good choice, however for the employers the flexibility which is reached for the employees are not in line with the flexibility for them. The part time contract still holds a lot of obligations for the employers. This increase does not mean that the standard norm of working 40 hours a week will be vanished, however the share and probably the normalization of the labour agreement will be reduced. The other trend which is the increased amount of time people work and the increased amount of labour supply are related with the forecasted increase of part time work. First, the increased amount of labourers on the market and the longer working horizon results in an increase of labour supply which gives employers a better position to negotiated given the increased choices they have. Because of this employers can also make use of more part time employment contracts which diminished the risks for employers, because the labour pool is more diverse and larger. Although, the employer does not have the same amount of advantages as the employee, the employer still benefits from it. This can also strengthen the change towards more flexible labour agreements. The last trend which is the increase of the flexible labour agreements are about the increase of the "zelfstandige zonder personeel" and "flexwerkers". These labour agreements do not guarantee any form of security for these labourers and are interesting for organization which do not want to have the employee permanent under contract. These trends are all (partly) intertwined with one another and do have similar drivers which result in the upcoming of the trend. Although these trends are perceived separate from another, there could be possible causal effects which increase the flexibilization of the labour market over time. Nothing is sure and these trends could change over time, but for now these trends can be observed by the present labour market and if these trends will be continued the factor which drives these trends will be the desires and demands of the labourers on the labour market (de Beer, 2016).

1.2.2 Flexible labour contracts

As mentioned in the previous section different forms of flexible labour agreements are now possible in the labour market. 4 out of 10 workers do not have a permanent contract, whereas 12 years earlier this was less than 3 out of 10 (Tijhuis & Goudswaard, 2019). The main similarity between the flexible labour agreements is that the amount of income can differ, or that the period of time in which the income is obtained can differ. The following types of employment will be considered as a "flexible labour agreement". Temporary contracts in which at the end of the contract agreement an extension is needed, so contracts with a fixed amount of time in which the labourer will work for the company. In the Dutch labour market, these temporary contract workers can obtain a permanent contract. The law regulates that temporary workers can get a maximum of three extensions in which the total amount of months worked is 36 months (Josten, Vlasblom & Putman, 2020). After the third extension the employer is obligated to either sign a permanent contract with the employee or to stop the employment. If the employer does not give out a permanent contract, the employee will have to search for another job. The employer can employ the employee after a break of 3 months into a temporary contract again. These labourers have income security for temporary period.

Flexworkers are labourers who work based on the amount of work which is available. In Dutch these are called "oproepkrachten" en "uitzendkrachten". These labourers work for a company or an employment agency which give them work based on the availability and therefore a certain amount of time. Because of this, these labourers have high uncertainty on income (Smits & Skriabikova, 2019). According to Dol, Boumeester & Mariën (2014) these are commonly the labourers whom earn the lowest amount of money. Besides the uncertainty of work, the work is low skilled which also results in low wages paid to these labourers.

The term used in Dutch “zelfstandige zonder personeel” sometimes results in confusion. Someone who labels himself as a zzp’er is someone who has his own company but does not have employees working (CBS, 2020). So one could state that this is a person who owns a company where he is the only one working for it. The zzp’er could therefore be seen as similar to the flexworker. A difference is that the zzp’er is someone who does its own acquisition for work, whereas the flexworker is commonly called upon to work. However, just like the flexworker, the income depends on the availability of work. Another difference is that the zzp’er is commonly higher educated or operating in work which demands higher skills. Therefore, the zzp’er earns almost more than 70% of the average income of a flexworker (Dol et al., 2014).

Comparing all the labourers with flexible labour agreements together, one can observe that there are a lot of similarities between them. Therefore, all the labourers whom have these flexible labour agreements will be put together under the term “flexhousehold”. In this thesis flexhousehold will be used to cover these labourers. The groups, temporary, flexworker, zzp, will be considered if emphasis is needed. Household with someone working with a permanent contract will be considered “permanent households” in this thesis.

1.2.3 Identification of problems and hypothesis

From the information obtained from the previous sections some problems are identified which need to be solved and some hypotheses will be formulated. From the information obtained, the drivers of flexibilization are based on economical and political views. The literature tells us that there are benefits through the use of flexible labour agreements and focusses this solely on the employers and employees in the labour market. Other topics like health, housing and productivity for example are left out. Housing is perceived as a basic good which should be accessible to society and can stimulate social inclusion (Anderson, Finnerty & McCall, 2020). The connection with housing and therefore the social connection of the labour market have to be considered, which gives room to do research to the health and choices of flexhouseholds. Also, effects of the high income insecurity are not mapped and connected to housing and topics surrounding that.

The following hypothesis are based on information obtained through the literature and market research and the own perception and expertise on this topic.

1. Flexible labour agreements decrease prosperity for households.
2. Flex households will have a harder time finding suitable housing than permanent households.
3. Flexible labour agreements bring more limitations for low skilled labourers than high skilled labourers.
4. Flex households are forced to the rental market more than permanent households because of their income insecurity.

1.3 Societal and scientific relevance

1.3.1 Societal

The changes in labour agreements between employer and employee are related to a big part of the households in the Netherlands. The use of flexible labour agreements put labourers in a position where they have lower income security. Because of the lower security, the labour contracts decrease the accessibility of households on the housing market. Employees with a permanent contract are a step ahead of the ones without one. With the pressure on the housing prices the accessibility to decent housing is in danger. Especially the flex households. Therefore the research conducted on this paper will focus on how the accessibility of flex households can be improved on the housing market. Together with the research on the housing market and financial market, this paper can provide insights and possible new policies which can be used by governmental institutions to increase the position of flex households on the housing market. The outcomes can also give insights on how the present situation can be changed. Overall, this paper is of high societal relevance because it considers the most important need of mankind which is housing. And more specifically it will give recommendations and map the problems on a topic which is of high importance in the Netherlands, in societies as in the politics.

1.3.2 Scientific

A lot of research has been conducted on the housing market, where in the last years the middle segment was the most prominent one. Most of the research was commonly focused on the supply side of the housing market, and how housing associations and developers can be stimulated to construct more housing. The research will be scientifically relevant because of different aspects which are considered. This research will have, unlike to other researches, a strong focus on the demand side. The voices of households through the use of a quantitative research will give important information on how the current users of the housing market are experiencing the situation. Although the demand side will have a big focus, this research will also look into the supply side of the financial market and housing market. The combination of the different markets together will result in an ensemble where the markets are considered together and the causal effects will be brought to light. This will be different than the common way of researching where one variable is considered in different situations. As mentioned a lot of the research conducted in the last years is done by the use of middle segments. This research will focus on all the segments, low, middle and high. Besides the wide variety of groups based on income and household spending, this research will also focus on the flexibilization of the labour market. There is research conducted on how the flexibilization of the labour market is processed in different countries including the Netherlands. The real effects on the accessibility of the flex households towards the housing market is not research at all. Besides the conclusions of "decreased income security", there is no research on these households and their housing options, rent as owner occupied. This research will elaborated further upon the research conducted by Dol, Boumeester & Mariën (2014). Their research is based on the use of the WoOn dataset in which they focus on homeownership for households with a flexible labour agreement. This research will use their report and expand the subject with the financial market and labour market.

2. Research questions

The previous chapter discussed the problem statement and relevance of this research with the help of background information, which is crucial in understanding the research topic. In this chapter the research questions are going to be discussed. First, the main research question and sub questions derived from the problem statement are going to be elaborated. The following chapter will discuss the methodological approach in order to answer the questions.

2.1 Main research question

This main question of this thesis will be "What are the effects of the flexibilization of the labour market on the accessibility for households on the housing market, working with a flexible labour agreement?". To give a clear and substantiated answer to this question, a set of sub research questions are developed.

2.2 Sub research questions

The main question will be answered according to the following sub questions.

1. What are the outcomes of the flexibilization of the labour market on labourers?

This sub question will give perspective in how the flexibilization of the labour markets affects households in the Netherlands and what details these flexible labour agreements have.

2. What are the conditions to access the rental market for flex households?

To understand how households are affected by their flexible labour agreement, the conditions of the present situation needs to be considered and needs to be mapped in order to understand how the accessibility of the housing market in the Netherlands is constructed.

3. What is the position of flex households on the owner occupied market?

The financial markets have just like the housing market boundaries and conditions for obtaining their products. How the flex households can operate and sustain in these markets will give more insights on their accessibility to certain products.

4. *What are the differences in housing characteristics between flex households and normal households?*

By understanding the present housing characteristics of the different households a distinction can be made about how the agreements lead to a different outcome for them.

5. *Is there a difference in moving desire between the flex households and the households with a permanent contract?*

To research if the flex households are affected by their flexible labour agreement, they have to be compared to the households with permanent contracts. Are there differences in motive for flex households to move to another house. And with this change, how do flex households use the extra surplus obtained from their house in comparison to permanent contract household.

6. *Are flex households spending more on housing than normal?*

This sub question has the focus on how the amount of money spent on housing is distributed between the different households, based on age, labour contract, income and education. Also the different mortgages of the households will be compared. This will give insights in how the money spent is different between the households.

7. *What needs to be changed in order to increase the accessibility of households to the housing market?*

The housing market, financial market and labour market are three markets which affect the accessibility of households to their desired home. These markets all have their own characteristics which are driven by supply and demand. By proposing changes, the accessibility and therefore the opportunities of flex households can be enhanced.

3 Methodology

For this research a methodology will be designed to look into the different markets which influence the households possibilities when looking for a house. The financial market, labour market and housing market will be researched together with household preferences and characteristics, to see if there is an interaction between them. This research will be divided into three different parts, which are interrelated to one another.

3.1 Study design

3.1.1 Part 1

The first part of this research will be done by conducting a theoretical study, which will further explore the knowledge on the present conditions on the labour market, financial market and housing market. The study will be done through the use of an academic literature which will be further extended by the examination and findings of rules and policy notes. The study will be divided into three different domains which will give insights on how the different markets work and what the outliers are of the markets. The different domains all have their own research questions which will be answered throughout the paragraphs. The domains will all be connected to the flexible labour agreements given that this is the main topic of this research.

The first domain will be focused on the flexibilization of the labour market. This study will try to get deeper knowledge about the flexibilization of the labour market and which trends can be seen or expected in the coming year(s). Also this domain will focus on the different labour agreements and how these are established. This information will help to give an answer on *“what are the outcomes of the flexibilization of the labour market on labourers?”*.

The second domain is about the housing market in the Netherlands with the focus on the rental market. The information in this section will be divided into the social rented and private rental market. This domain will give insights on how the different segments of the rental market are

established. Also the differences in requirements to obtain a dwelling in the segments will be described, and how the different working classes will fit. This domain will give an answer to the question "what are the conditions to access the rental market for flex households?".

The third domain will focus on the owner occupied market. Here information on the financial services providers and how they operate in the present market will be researched. The "general" rules will be researched and the flexible labour agreements will be put against the demands of the financial service providers. Developments of new products will be researched and the possibilities of the flexible labour agreements will be further researched, to see "what is the position of flex households on the owner occupied market?".

3.1.2 Part 2

The second part of this research will focus on a quantitative research conducted through the use of applied statistics. The dataset of the DNB household survey which consists of +/- 2500 respondents will be used. To operationalize this research, two target groups will be created, one with the flex households and their characteristics, and one with the other households with a permanent contract and their characteristics. These groups will function as a basis on which the analysis of this part will be conducted, therefore the first question which will be answered is What are the differences in housing characteristics between flex households and normal households?". The target groups will be divided in sub groups, the variables on which the subdivisions will be made are age, household composition and income classes. If there are major differences in the preferences of the flex versus permanent households, than the respondents which deviate largely from the preferences need to be filtered out. On the foundation created by the two target groups, different variables will be used to see if there is a major difference between the two groups. The variables which will be used are the type of housing, type of housing agreement, housing characteristics such as a balcony versus a garden, multiple bedrooms versus a few, an office room or not etc. This will show to what extent the outcome of the desired preferences of the households are met in the present situation.

After this basis is solidified and ready to be used, the focus will be on next question which will be Is there a difference in moving desire between the flex households and the households with a permanent contract?". This question will be focused on if the motive to move are different for flexible households. Given the present conditions a lot of home owners will have surplus on their houses. Is this surplus one of the reasons to move and if this is the reason, for which purpose does the household want to use this surplus? Between the different households and income classes there may be a big difference which can help to understand the effects of having a permanent versus a flexible contract better. Besides this, this dataset also consists of the feeling and emotions of the households and the will to move. Besides the mentioned ones, there is more informative data in the set which can also be used to get a more clear vision on how these factors come into being. The mentioned data can be used to see what the possibilities together with the desire can be for the households.

In addition the differences in household spending will be researched. This will add to the effects of the differences in labour agreement. The focus will be on looking if the households spent more or less on housing than what is perceived as normal. The income to rent/mortgage will be researched and the together with the answers on the previous questions a look into the drivers on "are flex households spending more money on housing than normal?".

3.1.3 Part 3

Eventually a synthesis of all the information together will be created. The outcomes of the theoretical part and the statistical part will be examined together. The information from the research will give an answer to main question of "What are the effects of the flexibilization of the labour market on the accessibility for households on the housing market, working with a flexible labour agreement?". This will give insights on how the labour market, financial market and housing market together affect the flex households in their accessibility to the housing market and where the problems are in the respective markets. After this is mapped and all the effects and drivers are summed up, a statement will be developed on "what needs to be changed in order to increase the accessibility of households to the housing market?". In table 1 an overview is given on how this study design will be operationalized.

PART	QUESTION	TYPE OF STUDY	METHOD	DATA COLLECTION
PART 1	Question 1	Qualitative	Theory	Literature review & source study
	Question 2	Qualitative	Theory	Literature review & source study
	Question 3	Qualitative	Theory	Literature review , source study and interviews
PART 2	Question 4	Quantitative	Statistics	DNB household survey
	Question 5	Quantitative	Statistics	DNB household survey
	Question 6	Quantitative	Statistics	DNB household survey
PART 3	Question 7	Qualitative	Concluding	Outcomes Q1-6
	Main question	Qualitative	Concluding	Outcomes Q1-6

Table 1: Operationalization study design

3.2 Research methods and data collection

For this thesis different research methods will be utilized to create a report which is in line with the guidelines of writing an academic report. Also the different research methods will make the information input more diverse which makes the research more profoundly reasoned and also increases the validity of the outcomes of the research (Bowen, 2009). Because this report is divided into a qualitative and a quantitative study this report has a mixed methods research design. The design chosen for this research is an exploratory sequential mixed method design in which the qualitative study will be conducted by the use of a literature and a source study followed by a the statistical study will be done through the use of a database. The statistical study will be further structured based on the findings from the qualitative study. Both of the studies will be conducted as a classical experimental study, which means that two groups will be established, a target group and a control group (Bryman, 2016). The experimental group will consist of flexhouseholds, whereas the control group will consist of permanent households. During this research, the dependant variable will be the accessibility to the Dutch housing market, whereas the independent variable will be having flexible labour agreements (Bryman, 2016).

3.2.1 Literature study

First a literature study will be conducted to create a basis on which the empirical research will be conducted. This literature review will be used to give the reader knowledge about different terms and background information, so that international readers which are not familiar with the Dutch systems can understand the compositions and use of these systems. Also this will help the reader to understand the position of households in the Dutch labour market, housing market and financial markets

3.2.2 Source study

After the literature study, a source study will be conducted. A source study will be done through the use of policy documents from institutions as from the government. First, further deepening knowledge on the flexibilization of the labour market will be researched. The context of this flexibilization will be written to understand where the changes and development of the labour market is coming from. After that for the housing chapter the accessibility norms and standards will be researched and reviewed to gain an insight on the requirements asked from the private rental market and the social rented market. Policy notes of the banking sector will be used to review the demands to obtain a mortgage on the housing market. Further research on the financial market will be done to extend the information on the owner occupied market.

To further elaborate on the literature research conducted for the financial market, there will be interviews conducted on if the financial market take the changes on the labour market into account, and use different conditions for these households to still obtain a "normal mortgage". Also information

on the developments of new products will be implemented in the interview. The information will be obtained through the use of a semi structured interview. For this research, the desire will be to have 4 semi structured interviews. These interviews will be conducted by financial institutions such as the ING bank, ABN Amro, Rabobank and the Hypotheker.

Because the interviews will be semi structured, some standard questions will be formulated to secure that all the interviewees will have the same basis of questions. On this foundation, open questions regarding the financial services and operating field of the interviewee will be asked, which will help to understand the point of view of the interviewee and to transition to the questions which are related to flexhouseholds on the financial market and what type of stance or ideology the company the interviewee is working for takes. During the interview the interviewee will be free to elaborate on a lot of topics as long as it is in the interest of this research. To ensure optimal information obtained from the interviews, the interviewee will receive the first set of questions well ahead, together with an explanation about the research so that the necessary preparation can be made.

3.2.3 Statistical study

To make this a mixed method research, besides the use of document analysis, also a statistical research will be conducted. This research will be done through the use of the DNB household survey database. This database is created based on the use of a survey in which respondents answered various questions based on their personal characteristics, household composition and housing characteristics. This research will use various statistical examinations and observations. Aggregates of variables and different types of multi variable analysis such as the T-test, One-way ANOVA and chi square test will be used. This quantitative study is based on respondents whom are living in the conditions, and therefore has more practical information which can strengthen the content of this thesis.

3.2.4 Synthesis

The results obtained from the different methods used will be compared and analysed in the synthesis. The information obtained from the document analysis will contain a lot of theoretical information, whereas the information of the statistical research will be on how it works in practice. Therefore the practical information will be analysed together with the perception of the theory. This synthesis will lead to insight information on how practice and theory are connected with one another or how the theory is declined in practice. The synthesis will eventually be used to formulate the conclusions and recommendations of this research and to answer the research questions.

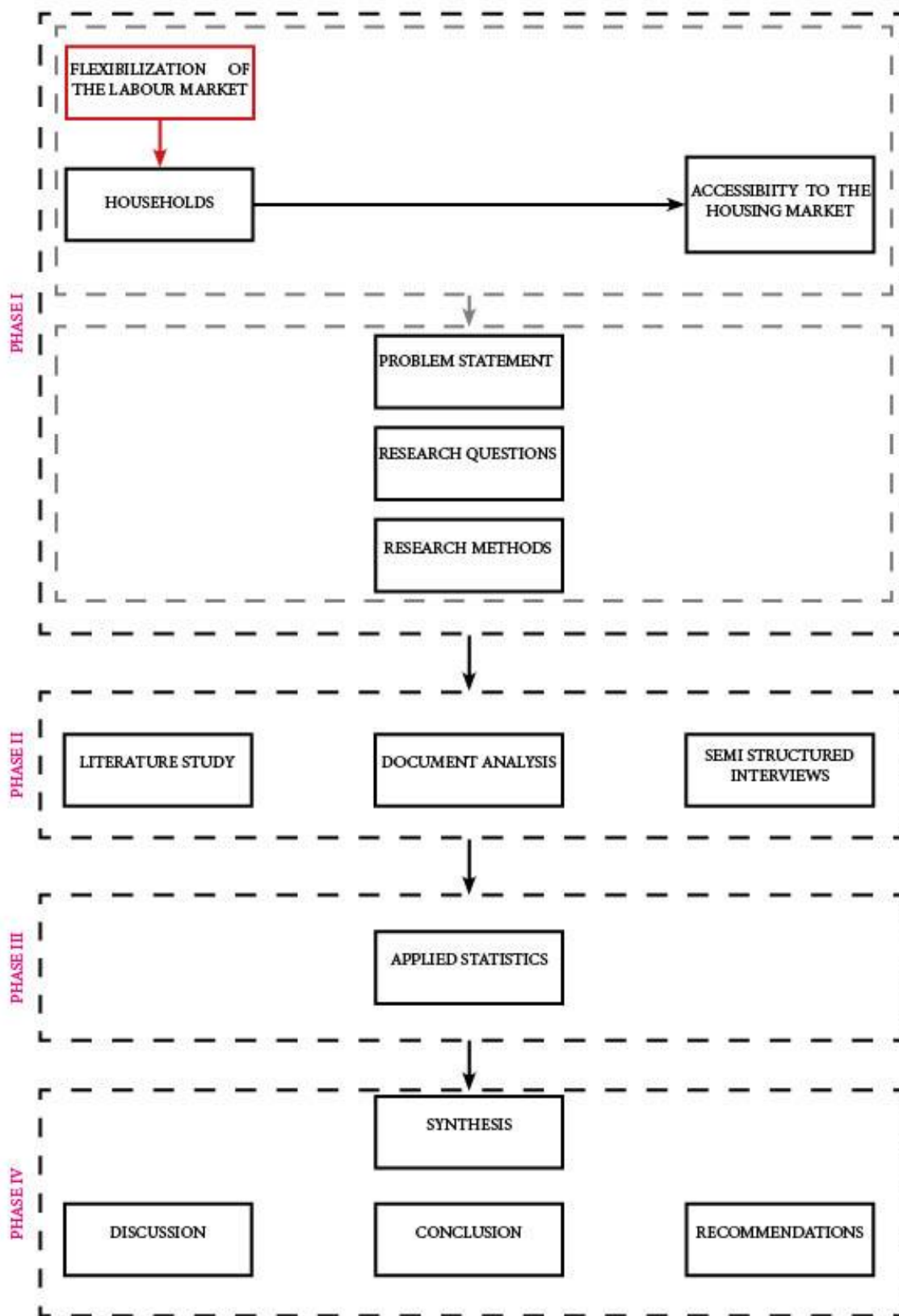


Figure 2: Thesis structure “exploratory sequential mixed method design” (own illustration)

3.3 Data plan

3.3.1 Data protection

The data in this research and the final research itself is processed and published in accordance with the FAIR Guiding Principles, based on Wilkinson et al. (2016). FAIR stands for: Findable, Accessible, Interoperable and Reusable. For this research, this means the following:

- The final research thesis will be published on the educational repository of the Technical University of Delft (TU Delft) by using the link: <https://repository.tudelft.nl>. Before publication, the draft research will not be publicly available, but can be viewed by sending a request to the author by email.
- All data obtained, either from literature, interviews and other sources, will be referenced to or cited in APA-style, of which the full references can be found in the references chapter at the end of the research.
- All sensitive information will not be shared to ensure the confidentiality of the participants of the research, meaning all this information will be anonymized, blurred or left out upon request of the participants.
- All data obtained in specific Dutch terms (e.g. housing terms, contracts, names of flexworkers) will be translated to English to the best of knowledge, and will include the Dutch term in brackets.
- The interviewees will be asked to fill in and return the form; Informed Consent. This form has been set up regarding the guidelines Human Research Ethics Committee installed by Delft University of Technology (TU Delft).
- The final research document will include the interview guide used for the interviews. The database which will be used for the statistical research will not be added in this document. But can be retrieved upon request by sending an email using the email address anilbuz1998@gmail.com, with the exception of transcripts that do not have permission to be shared by the interviewee(s).

3.3.2 ethical consideration

Besides the FAIR guide principles mentioned in the previous section, there are some important ethical concerns that should be taken into account while carrying out a qualitative research. According to Sanjari, Bahramnezhad, Fomani, Shoghi & Cheraghi (2014) anonymity, confidentiality and informed consent are of high importance. Fouka & Mantzorou (2011) state that privacy and vulnerability should also be considered as important ethical concerns which need to be considered during the execution of a research paper.

In this paper these five ethical considerations will be safeguarded as follows. The anonymity and the privacy can be taken together. For this research interviews will be conducted and a qualitative research with information derived from a survey already conducted. Sensitive information of the participants of the interviews and research will not be shared. For the interviews the identification of the participants will not be shared, the information about the field of expertise and company will be shared if the participant gives consent to this. For the statistical research, the used database and/or survey will be mentioned, however personal information of the participating households will not be shown in this paper. Household characteristics such as composition or income will be shared, however this will not be traceable to the specific households. Although the DNB household survey has open access to the public, it will only be used for research purposes where the focus on obtaining information where the Dutch society can benefit from. As mentioned, the interviewees will receive a letter of consent in which they can give permission and show the voluntariness of the interview. The extra ethical considerations of the database will be based on the confidentiality of company that manages the dataset.

4 Research output

4.1 Goals

The goal of this research is to get insights on how the different markets which are connected to buying a house (Labour, financial and housing market) influence the possibilities for households which have a flexible work relation. The objective is to see how these markets are interrelated to one another, encourage or discourage households in their possibilities and how this is done.

4.2 Deliverables

Since this research will be divided into four different parts, all the parts will deliver a specific type of information in its own way.

1. A theoretical study which is focused on the labour market, financial market and the housing market of the Netherlands, which addresses the changes in labour agreements and household accessibility.
2. A statistical research which will examine the households characteristics from the DNB household survey dataset, which explains what the differences are between the households in the present market, and how changes in the future are inhibited for the flex households.
3. A conclusion and answers on what the effects are of the flexibilization of the labour market, financial markets and the housing market on the accessibility of flex households and recommendations on how changes can influence the accessibility of flex households in a positive way.

4.3 Dissemination and audiences

This research will be focused on four different audiences. The first audience will be the households which have a flexible work relation, which are thinking of moving or want to explore their opportunities on moving towards another house. They will obtain the boundaries of the working field within they can try to move or obtain a new home. The second audience consists of financial service providers, developers, investors and housing corporation which are on the supply side of the housing market. For them, this research will provide insights in a new target group which is not represented in the present market may lead to lucrative opportunities. The third audience for whom this research can be interesting are the academics which focus on housing systems and housing market, which want to broaden their view to the other market such as the labour or financial service markets. Lastly, this research will be very useful for municipalities and the government because it addresses how the different markets, which can be influenced by these organization, do not work well or cause causal issues between them.

4.4 Personal study targets

I have different targets I want to accomplish by doing this research. First, I have a big interest in the housing market. By doing a research which is focused on the housing market, I can learn the ins and outs of this market, and I can prepare myself on how I can possibly purchase my first home. Given the high chances that I will start with a temporary contract before moving to a permanent contract. Secondly, I would like to add more information and knowledge to the existing literature. I like writing papers and the possibility to carry out a research which can really help households or policy makers would be my peak accomplishment in the educational environment. Thirdly, I would like to improve my knowledge and understanding of statistics. I only had two courses in which I learned something about statistics however this did not cover a lot of information which I can potentially use in the future. Lastly, during the bachelors and the masters we got different courses and assignments, however I have not really experienced "scientific or academical" courses. Doing this thesis and using the different research methods and techniques will give me the feeling of really concluding my educational career, and making myself a real academically skilled person who can carry the "engineer" title with fulfilment and validity.

4.5 research plan

The research plan can be found in the added excel document named "Timetable research plan_Anil Buz_11_01_2021".

5 reflection

I imagined starting and working on my graduation thesis very different from what I have done in the previous 3/4 months. Beginning in September I was taken by surprise on how quick we had to come up with a topic to write about. I talked a lot with other students who were already writing their reports and they told me that the start of the graduation lab was very pleasant and that you got a lot of help from different teachers on the development of your topic and ideas. However this was the complete opposite, most of the teachers in the zoom meeting were more focused on the ones who already had a well thought idea and the assistance that I thought I needed was not there. Therefore the first week of this course was for me a bad week with a lot of ups and downs. Fortunately, one of the teachers redirected Joris to me because my topic was in line with his interests. This really motivated me to go further and to take more action. After first contact with Joris & Peter for me it was immediately clear, they are going to be my mentors. Choosing my mentors in the first week resulted for me into a quick way of scoping down my possibilities, which was beneficial for me because now I could really focus on the topic housing, and choose something within that field that I liked. So one could state that the absence of the teachers in the first week turned somewhat positive for me. Based on experience of all the courses I have followed till now, the courses where I commonly flourish the most, are the courses which make me want to stop and give me a hard time, in every possible way.

After I chose to go for the flexibilization of the labour market topic, the course really started to become fun and interesting to me. Also my focus and drive to finish this masters came back and I really wanted to do my best, however then a lot of problems occurred which really slowed my progression down and made it very hard and time consuming to deliver a good product.

1. Because of the coronavirus, in the beginning it was hard to start working again. The coronavirus made me feel somewhat down and therefore I needed to push myself very hard after the holiday to be productive again, and have that work mentality again.
2. I put all my electives in the first quarter. Looking back this was a really good choice because in Q2 I had a lot of time to work on my thesis and to make a lot of progression. During my Q1 however, this was different. Maybe spreading the courses over Q1 and Q2 would have made it easier for me to come back quicker into form.
3. Another major setback during this course was the fact that I got infected, directly after finishing my exams. After my exams I had 2 to 3 weeks in which I would go all in to work on my thesis. Because of the illness I was out of rotation and also starting again was a big issue.
4. After the illness was gone, end November beginning of December and getting back into the workflow, the lockdown came which resulted in the hardest part of this course. For me there is almost no option to work from home, given the fact that I need to share my room with my little brother and because we're living with too many people in a house which is too small. On top of this, extra problems in the private atmosphere came up which made working from home almost impossible.
5. The most frustrating part of this course, was the search for a graduation organization. Three organization which would really suit my research and would also help me develop myself further during this period could not hire me because of capacity shortages, which was caused by corona.

Looking back on all these things, I am content with the report which I created. However, if the circumstances were different I think that the report would have been better, and certainly the process towards the development of the report would have been a more pleasant operation. But also on this, given the situation and knowing my own skillset, the difficulty of managing everything within these circumstances may pushed me to go harder than I initially would.

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