Bachelor Thesis:

Regular Job Aspiration in the Platform Economy

Valentin Schläffer

S1736914

Presentation date: 5.7.2018

European Public Administration

University of Twente

Abstract

This paper, recognizing the need to observe street level opinions about societal restructuring, answers the question to what extent crowdworkers are aspiring a regular job in wage employment outside the platform economy. It divides two dimensions of employment factors. One facet, expected to pull individuals into platform employment, is Autonomy and its appeal of a self-defined lifestyle. The second, and complementing push factor is financial and job insecurity forcing workers to seize platform employment. This analysis has been conducted with a cross sectional survey study, observing crowdworkers with different platform-, as well as social backgrounds. This data has been used to compute logistic regression models.

The data showed that a high proportion of platform employed individuals does aspire a regular job in wage employment. The regression models have been used to confirm two Hypothesis. First, they revealed that perceived Autonomy does in fact have a negative effect on Regular Job Aspiration. Secondly, that the effect of Insecurity on Regular Job Aspiration is positive.

Contents

Table of Figures

1. Introduction

In the 21st century, a completely new branch of business has developed offside traditional mega-corporations. Innovation in communication and administration technology have enabled digital websites to connect the labour market on a scale unprecedented (Anders & Iwona, 2016; Calo & Rosenblat, 2017; Kenney & Zysman, 2016). The so-called platform economy emerged as fast as it took over a huge proportion of the responding of market sectors shares. Already in 2015 only the main components of the platform economy are estimated to have produced revenues of €4bn and facilitated transactions up to €25bn, and that only in Europe (Tank, 2017). Major reason for its success is the unregulated realm it created for itself. The fact that their business models almost do not rely on ownership does enable a minimal level of financial responsibilities. In combination with highly sophisticated algorithms, controlling and administering the provided service, these actors have lain out a path unmatched in terms of dynamic opportunity seizing (Anders & Iwona, 2016; Drahokoupil & Fabo, 2016). But where does this huge success come from? And are all participants in the platform economy winners? What does shape a person's platform interaction on an individual level? Why do workers employ themselves for online platforms? Always considering the newly developing Platform Economy, this paper examines the platform workers perception of work and their aspiration to do the same job in a traditional wage employment arrangement.

There is a huge market demand for flexible short-term labour, with the need of this work to be done as cheaply as possible. Multiple features of the platform economy do make it a perfect supplier for these kinds of short-term working relations.

There is close to no restriction to enrol oneself at a platform and fulfil tasks. The mechanisms that enable the transaction to happen are, in comparison with the traditional labour market, very unregulated and unsupervised. While a regular employee has protected amounts of maximum hours a week a platform worker does not apply to such rules. Potentially someone could sit down after her/his job and spend more time on all kinds of tasks. This thesis aims to observe how these unsupervised opportunities, lack of security, harsh conditions, and demands influence a crowdworker's perception of her/his job arrangement and if they stimulate the will to change. The overarching phrase used in this paper to refer to concepts related to this is Insecurity.

Corresponding to the market demand discussed above, there is also a personal demand for flexible hours and autonomous life design. Again, the platform economy does provide a good basis to engage in such behaviour.

The platform employee has more freedom. The fact that their working hours are not fixed allows them to engage and disengage their job without extrinsic restriction. As long workers have Internet access, even the spatial context becomes irrelevant because must platform work is done digitally. The impact of these prospects on a crowdworkers perception of her/his labour engagement is analysed in this paper. The bundle of these conceptions is formulated as Autonomy in this article.

The platform economy intercedes services and by doing so it balances the interests of multiple actors. There is the market stakeholder which demands low pricing and responsibilities (Reilly, 1998), and there are the platform employed, demanding fair remuneration and insurance. The focus of this paper is on the interest of the crowdworker. It observes how harmful the balance is perceived, and how much it plays a part in the framework. A combination of Autonomy and Insecurity is expected to negotiate Regular Job Aspiration.

By observing employees of several platforms this paper attempts to analyse the effects on a crowdworkers motivation to find out if and why they would rather be a part of a standard employment relationship. The development that is described is rather new and thus is its academic literature rather sparse. But there has been done a lot of research about the influence of Financial Insecurity on the job perception of a person. Also, the relationship of perceived autonomy and flexibility have been studied in depth (Ahuja, Chudoba, Kacmar, McKnight, & George, 2007; Thompson & Prottas, 2006). Studies of Self-Employment observe a form of employment which shares a lot of conditions and risks that platform workers are exposed to. A combination of observations of the existing research field of labour and the results of the vastly growing amount of platform-work-literature contribute to a theoretical framework used in the thesis.

In this context, my research question is: “To what extent do perceptions of Insecurity and Autonomy influence the crowdworkers aspiration of a regular job in wage-employment?”

1.1 Outline of the thesis

To answer the research question, this thesis will provide in Chapter 2 an overview about the theoretical and practical situation in the platform economy. Then, Chapter 3 will provide the used theories and the concepts relevant for answering the research question. Chapter 4 describes the used data, how it was collected, and what will be tested with it. Chapter 5 analyses the data in regard to hypotheses and specific expectations and Chapter 6 closes this thesis with an overarching conclusion.

2. Employment in the Context of digital platforms

In the upcoming section, the platform economy context shall be described. The different namings of the literature for this sector, and their distinction is discussed. Furthermore, the nature of this work is analysed, and the implications of these conditions are listed.

Work has changed multiple times throughout the last decades (Sverke & Hellgren, 2002). The recent developments happened because of several factors, among others volatility of supply and demand, newly introduced competition because of globalization, restructuring caused by technological advancement, and the resulting revolution of administrative capabilities. This development has, for now, reached a peak by creating a sector which is called the **platform economy**, **sharing economy**, or **gig-economy** (Tank, 2017).

The concluding terms of the paragraph above have been emerging around this new developing practice, each of them with the aim to capture a certain part of the mechanism. For this paper the predominantly used phrase will be **platform economy**, since it is the most neutral term. It contextual intention is none more than to clarify that the matter at hand is about economic activity organized on digital platforms (Kenney & Zysman, 2016).

Advocates of the platform economy named it the **sharing economy** early on. This term is non-problematic if one consciously acknowledges its limitations and origin. Its most famous examples are Airbnb and Uber. These platforms fundamentally differ from Wikipedia which provides a communal knowledge exchange and collaboration and platforms like Napster which shared music files gratuitous. The sharing economy mechanism is based on monetizing the human effort to share already existing commodities and services (Kenney & Zysman, 2016). This includes already a vast number of economic actors out there but in the context of a digital platform economy its definition does not incorporate all stakeholders.

Contrary to the mainstreaming of the term sharing economy, **gig-economy** is a concept which has been shaped by critics rather than supporters. Its very basic definition clarifies that the sector does match supply and demand of working activities via mobile apps, mediating "crowdwork" and "work-on-demand via apps" (De Stefano, 2015). The first of those terms referring to working activities that can and will be completed via online platforms. Secondly, this term differs as its labour tasks are traditional work, like transport, cleaning, even clerical work etc., but these activities are still arbitrated through apps that in some cases even do set minimum standards of service.

This thesis uses the term **platform economy.** It is the most feasible formulation, due to the fact that it is the broadest definition and least biased.

The basic difference between being employed and crowdworking is in the nature of the affiliation. When one enters a labour contract with an employer a clear relationship is established with rights and obligations on both sides. The worker gets registered as an agent able to complete task which its overarching organisation has been assigned to. The registration and addition to the working team is the same with platforms, but there is hardly any rights or obligations on both sides (Donini, Forlivesi, Rota, & Tullini, 2017). The mediation of supply and demand by the platform, leads to autonomy and flexibility for the worker, and is an opportunity to bypass many regulatory responsibilities and costs of employment for the platform. (Roman. 2011).

At this point one must stress the volatile nature of platform work. Modern societies have agreed on these regulatory responsibilities and costs of employment, mentioned in the paragraph above to ensure a minimum level of work safety and life decency. The structural bypassing of such legislation is a major concern for any society (Minter, 2017).

Platforms exist in many different organisational models and settle their services through different channels and in many shapes and sizes. From time to time, these different modes and terms can be confusing. To clarify this, Minter's consideration of platform work is presented. According to him platform work is defined by a wide range of features inter alia: the Fragmentation of Work into specific individual task which are engaged by workers on a task-to-task basis; labour is performed by the worker but commissioned by the end-user (Consumer or Business); the performance is facilitated by a for-profit company which relocates the money and charges a provision for and through their web-based hub; workers are treated like independent

contractors without employment entitlements; remuneration is set by the commissioning customer, and collected by the platform which distributes it to the workers (Minter, 2017). This might look like the crowdworker is performing the role of an independent contractor but the author critically points out that these labourers have "limited bargaining power and clearly do not possess many of the traditional attributes of truly independent contractors" (Minter, 2017).

According to Minter, there are five main factors which are provided by a standard employer but are missed in the Platform Economy. These respond to an institution or mechanism forcing the contractee to pay the received labour, clearly voiced procedures to settle dispute, ensured minimum remunerations, safety regulations, and lastly insurance mechanisms covering the broad portfolio of risk most labour entails. The absence of these things puts crowdworkers in a very volatile position. Furthermore, the offloading of these costs brings the crowdworkers in financial and mental turmoil (Minter, 2017).

Preceding discussion and considerations have evaluated that there is a broad range of disadvantages resulting from platform employment. Thus, at least a proportion of crowdworkers is expected to be put off by these conditions. These individuals are predicted to aspire disengagement of employment provided by the platform and seek to get a contract for a regular job in wage employment. In practice, this option is not available for everyone. It can be the labour market or individual situation that holds an individual back from getting employed. These people are expected to stay in the relationship they have established with the platform and engage in labour activity to sustain their living standard. Nevertheless, these individuals might still aspire to one day leave the platform economy and work in wage employment, which brings us to the dependent variable.

The dependent variable of this a paper is phrased as "the degree of aspiration of a standard job in wage employment". This already implies the expectation of a part of the platform sector to be employed there although they would desire to fulfil their jobs in a standard working relationship. In labour studies, this has been referred to as "involuntary employment" (Amuedo-Dorantes, 2000; Dingemans & Henkens, 2014; Kautonen et al., 2010). By using the term involuntary employment in the context of platform labour, this study carries on a longer tradition of labour research.

In the 1990s, the International Labour Organisation (ILO) pointed out that: "There is a fundamental distinction to be made between voluntary and involuntary part-time employment:

whether people deliberately choose to work part time or accept reduced hours of work simply because they cannot find full-time employment." (International Labour Review, 1997). The concept, the ILO refers to as, part time work in 1997 has a lot of parallels to platform work in 2018. Especially the distinction between voluntary and involuntary employment is highly relevant for this thesis. Thinking of unemployables seizing the only possible source of incomes, to employed in need of additional income, there many potential situations which would put an individual in the category of an involuntary employed person. Nowadays, researchers use the term 'involuntary-self-employment' to denote workers holding self-employed jobs out of necessity and are not able to find regular employment (Kautonen et al., 2010). In this paper 'involuntary platform work' is referred to as platform employment against the will of the worker. These workers are expected to be pushed into their employment by insecurity or in rare cases even pulled by autonomy.

2.1 Stakeholder Analysis

There are multiple interest groups involved in the platform economy. The three main actors are the crowdworker, the task provider, and the platform. All these three actors contribute different interests and demands.

Crowdworkers are naturally a heterogeneous group. They come from different social strata, working different kind of labour, in different kinds of arrangements. These very varying conditions do make generalisation about the platform economy difficult. Nevertheless, given the literature discussion and observation made by the survey these features are deducted. In most cases, crowdworkers are desiring fair remunerations and a secure working environment.

These demands do contradict with the desires of the task providers. These stakeholders are expected to desire affordable labour without extensive responsibilities.

The platform brokers all these demands to create an equilibrium which expresses itself through the task prize and regulatory realities. In this relationship, the crowdworker is the most vulnerable actor and due to the design of most platforms is carrying the highest labour costs and employment risks. Naturally, any actor accepting a trade is doing so on a compromise basic thus accepting conditions which do deviate from the perfect desired arrangement. Especially in the platform economy the pressure that makes individuals consent non-ideal labour relations is

expected to be higher and the extent to how far this pressure is perceived is observed in this article.

The next section will introduce what the values are that shape the crowdworkers work perception and what the literature has contributed to their definition.

3. Balance between Autonomy and Security

The trade-off between flexibility and security has been recognised early on by social scientists. These pioneers named this topic '*flexicurity'*. This term has been phrased to recognize both the strong demand to make employment more flexible and the equally strong demand to provide security and preserve social cohesion in society (Wilthagen & Tros, 2004). The regulator, which is any entity that allows platform practices in its judicial realm, has not yet reached the platform economy. This stems mainly from two reasons. Firstly, the platforms themselves are disconnected from the national context as the service is hosted in a global, digital environment. Secondly the, in this paragraph described trade-off, is not only part of the platform discussion but poses an unsolved societal question. One can think about the clash of neoliberal and socialist values which is shaping most political discourse.

In the absence of societal decisions platform models have emerged as the market response towards this required balancing. Looking at the components of *'flexicurity'*, the origin of the two combined concepts lays with two different actors. The need for *flexibility* comes from market actors, employers need to outsource working activities to comply with the harsh conditions of global competition. Contrary, employees feel a need for security. The opposing requirements are balanced on platforms with a market mechanism.

These conflict of those needs have led to the emergence of a paradox (Wilthagen & Tros, 2004). As an illustration for this clash, an example used by Wilthagen and Tros seems suitable at this point: The European Union. The European Central Bank, the stakeholder for market interest, advocates flexibility of labour employment with the goal of furthering economic performance and competitive advantage. Contrary in the Laecken Declaration on the Future of the European Union in 2001 the Union, upholding the interest of the general population, declared the importance of security to preserve social cohesion within the society (Wilthagen & Tros, 2004). In principle the Union is communicating the same values at a high level, platforms are brokering at the street level.

These issues are not limited to Europe. The platform economy is mediating both demands. Looking at court decisions and procedural regulations in Australia, platforms focus on the wellbeing of the task provider to stimulate their success, rather than on their "employed" crowdworkers (Minter, 2017).

This clash of interests is relevant for this thesis as it is not limited to an international level. These interests do also compete for employers and employees. Both actors do feel a need for security and flexibility in their daily lives. These concepts to correspond with Insecurity and Autonomy which are the main independent variables in my research question: "To what extent do perceptions of Insecurity and Autonomy influence the crowdworkers aspiration of a regular job in wage-employment?"

There is a strong need for new policy and business models that promise to reconcile *flexibility* and *security* that seem incompatible at first sight (Wilthagen & Tros, 2004). Until today, the regulator, and in that sense society has not decided upon substantive regulative procedures for the platform economy. This is not only an issue of procedural administration but also a normative discussion about what our society values and how much we want the market to dictate that. As far as there is no clear statement of the authorities the platforms will continue to balance the scales themselves, potentially mistreating strong economic actors searching to hire labour on online platforms, but more probably exploiting vulnerable social groups, dependent on the additional income the platform does provide for them.

3.1 Aspiration of a regular job in wage employment

In the upcoming section this thesis will introduce you to a set of reasons that can cause a platform worker to aspire a regular job. There are multiple reasons that can make platform employment problematic for the crowdworker. The combined issues that will be discussed make some of these individuals rather fulfil their job in a regular job in wage employment.

What people desire from a regulated job the stability that comes with it. Fixed remunerations, fixed hours, fixed "in case this happens…", are the most important features. Differently there is the platform economy with opposite features: "Unregulated pay, unregulated hours, all in all very few regulations" (Minter, 2017). The securities that are characteristically for regular employment are not provided by the platform economy. Potentially this absence could put

enough pressure on an individual to feel entrapped in their employment and desire to rearrange their labour relation to fulfil the same task in the context of regular employment.

Platforms claim that skilled crowdworkers would easily surpass national minimum remunerations. This is a theoretical calculation that considers the pay for each task and dividing this by the required time, nothing more. There is no right or legal obligation, and this is going to be the point that the discussion will return to many times in the upcoming years. An example would be filling out a survey on Crowdguru for 25 cents. (The survey length is estimated to be 10 mins; 10 mins = 25 cents; 60 mins = 1,50€)[1] Naturally, this is a wage that will hardly stimulate anyone to fulfil the task. The people that in the end are doing these things are not motivated by the work-pay ratio but pressured into these opportunities by outside factors of need. Thus, involuntarily completing platform tasks to compensate for lacking finances.

What can be expected to explain a person perception to work involuntarily or voluntarily? In the end, this distinction will be based on perception. There will be workers fulfilling the same task either voluntarily or involuntarily. The outcome is based on an intrinsic observation of their surroundings, reality born of thought like in romanticism.

Fear is a main driving factor for human action. Fear is the main response to things that are unknown. Fear is the first emotional reaction upon a realization of having lost, or never having possessed control. While some might say antonyms for fear are courage, calmness or ease for this paper it is proposed that the opposite of fear is control, and knowledge.

Control and Knowledge is something humanity has been striving for throughout history. Curiously that now when humanity is as close to these ideals as never before, the market, the societal labour exchange mechanism takes a turn away from those goals and locks into a path of regulated chaos.

Some of these features most would agree to be either curse and bliss for others. There are people that trade a regular and predictable payment scheme for the possibility to design their daily activities with a smile on their face. Just as well there are people that give a lot to be sure that a certain amount of money will be transferred to their account punctual on a certain day. Why some people feel this way and why they are employed voluntarily or involuntarily will be explained. The preceding formulation does further describe the dependent variable of my

[1] A fellow student earned 0.25€ like this

research question: “To what extent do perceptions of Insecurity and Autonomy influence the crowdworkers aspiration of a regular job in wage-employment?”

But what does the continuing mainstreaming of practice advocating such volatile labour mean for the overall labour market? The low levels of commodity ownership and the respectively easy handling of online administration mechanisms, these conditions alone should suffice to enable a platform to underbid ordinary competitors. But the pressure does not stop here. The combination of an international workforce, with its proportion of desperate individuals does provide with the opportunity to squeeze task prizing even more. Platform pricing equilibrium can be expected to be a compromise between some persons perceived exploitation and the need to do the work anyway. Of course, there is platforms that do advocate egalitarian practices and communal responsibility but looking out at the prevailing market mechanisms an exploitative approach does hold high potential to achieve successful satisfaction of major market segments.

The accessibility of the labour market that platforms can provide is unmet. This free way of matching supply and demand does enable a broad workforce to engage in labour like activities. On the other side of the coin this does mean that the so called “race to the bottom” only gets intensified as a broader range of participants do participate in the competition and a good deal of them can be expected to need immediate cash, thus accepting conditions only a person in need would accept.

What can be influence a person to work involuntarily or voluntarily?

3.2 Perceptions of Autonomy and Insecurity

As one can already deduct from the discussion above there is a certain trade-off mediating the relationship between Autonomy and Security. Clearly, it depends on personal preference to decide which values one favours and pursues. This perception will decide if one is perceiving her/his platform employment to be voluntary or involuntary.

The following section aims to split the sample in groups of people employed out of opportunity and those that are employed out of necessity.

On the one extreme side of the spectrum, there are have highly autonomous persons seizing their skill and risk proneness to balance a work-life relationship that would be impossible in a classic employment relationship. This expectation is deducted from the fact that some

employees are expected to enjoy free opportunity to choose working hours, work in a way, and with programs they like. Think of a graphic designer who designs websites or images for multiple firms on a freelancer arrangement, as opposed to a graphic designer who is working a regular job at a design bureau, completing tasks for the clients of her/his employer.

On the other side, respondents are expected to be financial insecure individuals employing themselves out of necessity to fix up insufficient income or overcome situations of unemployability. Consider a poor individual collecting the last dollars to pay electricity through platform engagement as opposed to a person in a financially stable position, engaging in a task to refine the skill that is required, seizing the opportunity, that on the platform this training can also earn some extra income.

While the first group gets pulled by their own accord the second categorization gets pushed into platform employment without their free decision.

The discourse starts by introducing the main shaping variable of the subgroup, proposing theoretical expectations, discussing the corresponding literature, and the basic conclusion of the main research hypotheses will follow.

3.3 Perception of Autonomy

In scientific literature Job Autonomy has been discussed under a broad range of terms with different meanings. A popular phrase which has by now become a very politicized concept is *flexibility*. The distortion of this terms meaning has reached its peak in the 1997 UK Trades Union Congress where it has been used to describe “Labour market flexibility” so the employers right to hire and fire (Reilly, 1998). This short anecdote is used to clarify that this papers autonomy is strictly related to the self-determination of employees, or to be precise crowdworkers.

Above, Autonomy, or more specifically a facet of it, flexibility was introduced as an important term and as value sought for by the market interest stakeholder, in this case the task provider. But this concept cannot only be seen as a monopoly of the task provider (Wilthagen & Tros, 2004).

There are multiple sets of reasons to be found why employees can also desire *flexible/autonomous work arrangements*. Reilly lists them as follows: “acquiring skills through

functional flexibility; meeting life style preferences through doing temporary work; maximizing earnings through moving from one fixed contract to the next; working for a specialist supplier through an outsourcing deal rather than in a peripheral activity; organizing the balance between home and work through variable working hours or part-time contracts; cutting commuting time or costs through homeworking." (Reilly, 1998). The crowdworkers potential motivation phrased as "acquiring skills through functional flexibility" (Reilly, 1998) will not find application in this paper. It absence is discussed in section 6.

Autonomy in the workplace may affect workers value-orientations (Kohn, 1995). To a very mild extent one can point towards Hegel's Slave Master Theory, meaning just like the exposure to restriction does prime a mind for a restrictive environment, exposure to autonomy can be expected to create its own desire. So scholars conclude that due to their autonomous positions, people in self-employment would advocate individual freedom, initiative and responsibility, and therefore reject redistribution policies and collective security arrangements (Jansen, 2017).

Thinking again of the graphic designer mentioned above, her/his high levels of perceived autonomy he does enjoy and would not trade them for the benefits a regular job would entail. Thus, the first hypothesis is concluded:

H1: High levels of perceived Autonomy cause a weaker aspiration of a regular job in wage employment.

3.4 Perception of Insecurity

During the recent transitional periods of the labour market, the importance of job insecurity has drastically grown. Although, it is a very individual situation people experience a higher job insecurity nowadays than before (Kalleberg, 2009). Interestingly both higher job insecurity and platform-esk organisation models developed out of similar constellations. In the literature, this mechanism is referred to as a workforce adjustment in a response to new supply and demand conditions. It leads to the increased use of non-standard work, which platform work can be assigned to as an extension of this theoretical discourse. There are several reasons for this workforce adjustment: "intensified global competition has forced organisations to reduce production costs and become more flexible; recent periods of economic recession have led to widespread organisational closure with unemployment and growing insecurity as direct consequences; new

technologies have paved the way for less labour intensive production and also restricted the employment alternatives of less skilled workers; the rapid industrial restructuring from manufacturing to service production has called into question employees' view of the stability of their employers; and a belief in the market-driven economy has changed government policies and in many countries resulted in relaxations of employment legislation" (Sverke & Hellgren, 2002). Obseervations show an increase in outsourcing work activities, the increase gradually started in the 1970s and since then has only gained momentum. The employers search to reduce financial responsibilities has led to a risk-shifting towards employers (Kalleberg, 2009). Looking at risk distribution in the platform economy this practice is one of its core features. There is a growing group of so-called 'dependent self-employed', workers who are formally in self-employment but work in hierarchical sub-ordination to a single firm on which they are economically dependent (Muehlberger, 2007). The example most visible in Europe would be parcel services like DHL or other companies with the same business model.

One key feature of the concept is that it exists as a subjective concept as well as objective empirics (Kalleberg, 2009; Sverke & Hellgren, 2002). First of all, it can be defined as an experienced stressor which can be divided in different subjective dimensions. These emotional dimensions influence work-related outcomes such as attitudes, performance, physical and mental health, and stress. Here, this translation of subjective means into objective ends is hard to observe and the scientific literature has failed so far to ground how insecurity contributes to changes in these outcomes. According to Sverke and Hellgren, this is because most research in this field has been designed cross-sectional (Sverke & Hellgren, 2002) rather than, an interrupted time series observation. Further, it is argued that in this relationship there is a huge number of plausible moderators. This should explain that a clear definition of job insecurity is key to be able to describe both the theoretical and empirical facets of the concept (Sverke & Hellgren, 2002). For this research, this results in the acknowledgement of a very narrow focus on the degree of the subjective mechanisms prevalence and my non-observation of work-related indications. When analysing the data, the multitude of possible mediators cannot be discarded too.

Until today, research has described insecurities effect on job satisfaction, this paper presumes that the perception of low satisfaction or even involuntary engagement with platform activities stimulates the aspiration of a regular job in wage employment. Greenhalgh and Rosenblatt (1984) described job insecurity as a threat to the job itself, importance of total job,

threats to valued job features, importance of valued job features, and a feeling of counteract these threats. As discussed later, only the importance of the total job and importance of valued job features have made it in my survey items due to space constraints.

Attentive readers are already asking themselves why there is discussion about job insecurity when the focus of the research is on platform work, a realm in which concepts like "jobs" do not have a place. Just as a factory worker, a platform worker is dependent on the monetary remuneration to sustain her/his life standard. Apart from the fact that there is no employment contract, the demands of employee to employer and vice versa are similar, although loosely coordinated and in cases no primary sources of income or labour. The concept of job insecurity has been linked many times with reduced work attitudes like job satisfaction (Sverke & Hellgren, 2002).

While a factory workers job insecurity is putting him at risk of losing her/his employment status, or working conditions are threatened to change, the crowdworker is way more volatile. This labourer does not have a fixed employment, after each task she/he, theoretically, could be unsure if there is another one coming up. Non-existent work supervision diminishes the standardization of work conditions, only the result counts. Hence, wage employee's insecurity stems from the threat of something happening, which seldomly does. And this events threat continues to put pressure on the worker. On the other side, it can be argued that this event happens after every single task for a platform worker. He gets released from a working arrangement and working conditions will be newly set up by the future employer.

Job insecurity is only one side of the insecurity concept that is used in this paper. complementary, there is financial insecurity. This paper's definition of financial insecurity is very much based on mechanisms and expectations from years and years of labour studies before the emerge of platforms.

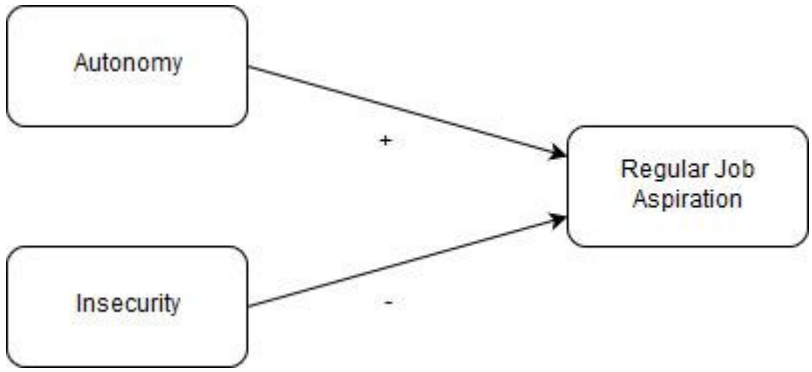
Financial Insecurity basically describes a situation in which a worker is in such pressing financial need that he is willing to trade a disproportionate amount of time for remuneration, or in the same sense a disproportionate amount of money for her/his time. Both insecurities work via financial mechanisms. They are divided between the indication of job insecurity, which is phrased as financial instability, and financial insecurity.

Platform work is one of the, until now, most developed occurrence of Kalleberg's so called "precarious work". In 2009 he predicted the increasing growth of this type of labour with

its main feature of being “uncertain, unpredictable, and risky from the point of view of the worker” (Kalleberg, 2009). Taking into account that; negative attitudes toward the organisation of labour are expected to cause aspiration of change the following Hypothesis 2 is concluded:

H2: High levels of perceived insecurity cause a stronger aspiration of a regular job in wage employment.

Figure 1 Causal Model visualizing the main relationships deducted from the Hypotheses.



4. Data and measurement

This paper is an explanatory study. Using a mixed-method approach, hypotheses are tested using quantitative data. A survey, specifically designed for this study, collected original data. In order to ground quantitative results, qualitative data is consulted, this data is collected through semi-structured interviews. With a cross-sectional analysis, relationships are tested to find indications.

General Variables

The collection of responses received was sorted out to receive a sample of valid responses. In a first step, empty surveys were excluded. Since there was no obligation to answer every question there is hardly any item which has been answered by every single respondent. Surveys that had only been filled half or did miss crucial indicators have been discarded as well. In the end the remaining valid entries amounted to N = 100 responses. The sample size is sufficient but the fact that the respondents are employed by different platforms, from which some are predominant, requires to be very critical with generalization.

Platforms. In this diverse field of platform types a prior clarification of the types of platforms the data collection focused on is crucial. The limitations of the observations refer to platforms that do employ their crowdworkers directly and exchange monetary remuneration for task completion. The downside of this specification is that a concrete definition of a certain platform type is inapplicable. To take this into account, it was concluded to include multiple different platforms. Thus, it was possible to test different statements regarding the specific platform of a part of the sample. Another initiative to achieve a more constant sample is the main focus on the national background of Germany and for some cases at least the background of a Central European society.

The crowdworkers are employed by 11 different platforms which are represented in the table below.

Table 1 Platform Distribution

	Frequency	Percent
99Designs	1	1
Clickworker	1	1
Crowdguru	3	3
Deliveroo	12	12
Foodora	24	24
Helpling	1	1
Jovoto	50	50
Stadtsalat	5	5
Takeaway.com	1	1
Upwork	1	1
VIP kid	1	1

The platform employing most of the respondents is Jovoto with 50 contributors, followed by Foodora and Deliveroo which would together contribute 36 respondents (24+12). These are the main groups in the sample and, although not too relevant for my thesis, these workers represent two distinct types of work mediated by the platform economy. While Jovoto arbitrates global digital tasks, Foodora and Deliveroo act as a middle for local physical tasks. Taking the literature into account, it is concluded that there are two main business models

observed by the data collections sample. Following a definition mentioned in an study about social protection of workers in the platform economy, published by the European Parliament, the observation of on-demand household services, and on-demand professional services is made (Tank, 2017).

The distinction does theoretically not influence the Analysis in a substantive way. Nevertheless, this split could potentially be a shaping factor. Potential effects are discussed in section 6 the conclusion.

Education. When it comes to the observation of the educational background of the respondents, the collection was organised separately for German and non-German respondents. For the regression models, these two observations have been normalized and coded into one indicator.

The data distribution before this recoding shows that, education levels of non-German respondents are astonishingly high in comparison with German contributors. While almost every non-German (94,9%) has or is completing academic education, a third of German respondents has not made use of academia for their education. This becomes more logical when one looks at the way the respondents were sourced. International actors were contacted via online platforms, mostly reaching well organised engaged individuals that sell high quality digital tasks on virtual marketplaces. Next to this advertisement campaign one of the data collaborators would locally advertise the survey amongst platform employees. Due to spatial restrictions, this lead to the fact that most of the Foodora and Deliveroo respondents come from the area near Münster, mainly being Germans.

4.1 Data Collection and Sampling

Online Survey

The survey had been open in the spring period of 2018. The questionaries' items, testing the specific indicators for my analysis, have been designed to be Likert-Scales.(Joshi, Kale, Chandel, & Pal, 2015) The respondents were asked to fill out questions measuring: their perception of autonomy and insecurity (more specifically: financial-stability, -predictability, -opportunities, -opportunity predicatability, free choice of tasks, and free choice of working method), their valuation of work features (more specifically: flexibility, autonomy, financial

security, and financial stability), and a bivariate indication about their aspiration of a standard job in wage employment (more specifically: one item testing overall aspiration and another to test aspiration under potential lower remuneration conditions). Crowdworkers employed by the platforms Foodora, Jovoto, and Clickworker were included.

To establish contact with the respondents was problematic as direct contact through the platform was not possible. How crowdworkers were approached will be explained in the next section.

Channels of respondent contact

Contacting potential respondents via Facebook groups. After researching a sample of diverse platforms, the research team joined multiple unmoderated groups. Next to posting the survey link publicly in the group feed, members have also been contacted individually. This approach has unfortunately proven to be very ineffective. One reason for this could be that the facebook chat function does put messages from non-connected people into a spam folder which is very hard to access. The response rate for this channel is below one percent.

Recruiting Jovoto crowdworkers. First, the research team created a personalised Jovoto account which was used communicate. The chat application of this website is designed plainer and in general focused to establish contact with persons that one does not know. Additionally, one can individually design the subject under which the message will pop up for the contacted being. Shortly analysing the persons profile description and personalizing the statement under which the message will appear does instantly further the appearance of personal contact. These factors in combination with a very open communication culture on the platform lead to a higher response rate then on Facebook. After closing the survey, the response rate on Jovoto is approximately five percent.

Recruiting on online platforms Platforms like Clickworker have proven to be most difficult to access. Since the algorithms of certain websites spurn on any inconsistency the situation of registry addresses in other EU countries but a dutch IP address did lead to registration attempts to be terminated instantly. Furthermore the support of platforms to access their crowdworkers is minimal as most research about the platform economy is shedding light on issues the platforms better left undiscussed. There is another problem with sampling in online groups; since all potential respondents are already connected through the group that is utilized.

Engaged platform workers that did not use the websites the search included, were left out. This suboptimal sampling resulted from the research conditions and is only natural for a bachelor thesis.

Internal and External Validity.

Ideally, as the literature suggests, a time series approach with multiple measurements would be ideal to study work related issues. Due to the very limited time and resources that are allocated for this research this is unfeasible. This has lead to the design of the inquiry as cross-sectional research. The threats to internal and external validity, that come with this decision, will be discussed in the following paragraphs.

Internal validity.

Collecting data only at a single point in time leaves a high level of uncertainty when it comes to the time order of the variables and in this way the observation of cause and effect must be considered carefully. Thus, there has been a portfolio of control variables which have been included in the analysis. These variables are discussed in section 5.

Non-spuriousness.

(omitment of power relationship) The biggest threat for internal validity is an omitted main variable. In this regard, there is a factor of major importance which was not included in the survey and which is also not controlled for. Literature broadly suggests that the perception of the power relationship between employer (platform) and employee is a main moderator of work perception.(Calo & Rosenblat, 2017) Outcomes of items that assess insecurity have to be carefully questioned and the possibility of a strong mediator can never be excluded. Therefore, one cannot be certain if an asymmetric power relationship causes the perceived insecurity or if the insecurity causes a perceived asymmetric power relation.

External validity

The platform economy is a globally interconnected phenomenon. Thus, looking at the narrow sample focus of Central Europe, the threat of underrepresentiveness is a crucial issue. Looking at average demographics of the Central European population, these individuals are expected to

have a national welfare system, which cannot be concluded for a sample that would have been randomized globally.

The second threat of underrepresentiveness stems from the fact that the data collection method has been conducted via online platforms that do require initiative to participate. Some of the respondents are being contacted via their original platform but especially when it comes to social-media-sourced respondents the fact that these are all interconnected and communicative people cannot be ignored. A lot of this online interaction and social media organisation is non-profit engagement and thus these respondents could be more prone to work in the platform economy voluntarily because an involuntary employee can hardly be expected to invest additional free time into her/his position.

4.2 Operationalization

The next section will introduce the design decisions that shaped the questionnaire items. Their measurement and direction are discussed. The section is concluded with a reflection on how the resulting values have been grouped as coherent sets of indicators.

Operationalization of the dependent variable "aspiration of a regular job in wage employment"

This fact is observed using two items. There is no measurement for the extent of aspiration. Their operationalization was coded as two dichotomous variables firstly observing the existence of aspiration and secondly, if this aspiration is strong enough to still exist in the context of a remuneration downgrade.

The specific formulation of the components was done like follows: "If you could choose freely, would you prefer to fulfil the same function in wage employment? (with a standard working contract)", and "Would you like to fulfil the same function in wage employment, even if you receive less pay?"

The dichotomies were coded in a simple binary 0, 1 fashion. 0 indicating no Aspiration and 1 announcing Aspiration of a regular job in wage employment. The main reasons behind the decision is easily comparable means and a natural interpretation.

Operationalization of the independent variable "Autonomy"

The variable supposed to capture the valuation of the positive side of the platform economy is coded in five items. Unlike the observations of the dependent variable these items have been answered on Likert-Scales, three of these have been allocated in a section diverging the answer on a 10-point scale of "how important is this feature?", and the supplementary two on 5-point scales of "strongly-agree; … ;strongly disagree".

Two different scales were used to prevent the respondent from instantly realising a connection between the question blocks. In the context of an elaborate survey, observing three topics, and these topics being intertwined an not separated by order, the realization of connection is already very unlikely. As the question design offered itself in this way, the opportunity was taken to further prevent the development of consciousness of the research goal by the respondent.

The three items that measure concept importance are formulated like: "I have many opportunities to accept tasks. – I have few opportunities to accept tasks.", "I can choose which tasks I want to work on. – I have to take every task I can get.", and "I can choose how I approach a task and be creative. – I have to strictly follow procedures when I approach a task." Answering one of these questions with 1 to 5 does indicate a favour for the first mentioned answer while 6 to 10 corresponds to the second given statement. The indication is gradually changed in significance as one moves to the other sides f the spectrum. Looking at the given indicators a low score as an answer relates to a high level of perceived Autonomy. For quantitative analysis the values of the scales have been reversed, with the aid of an statistical program the answer have been modified so a high conceptual value does correspond with a high numerical value.

There is no strict theoretical distinction for autonomy in my theoretical framework. Considering the already introduced theoretical background, one can see that these three items are strongly task related. They work on availability, the autonomy in choosing, and the freedom of the crowdworker to complete the work in the way they want.

The two items that measure agreement are phrased like: "It is more important to me to be flexible in deciding when and how much I want to work than to have sustainable income.", and "It is very important to me to be able to organize my daily activities in the way I want." A low score (1) does emphasize strong agreement and a high score (5) does mean strong

disagreement. These items do indicate a high level of perceived Autonomy when scoring low. Again, the scales have been reversed to allow for a logical analysis.

The first indicator values flexibility against income stability, thus including the other independent variable in the thought process of the respondent. The latter is simply observing the valuation of autonomous day organisation.

Operationalization of the independent variable "Insecurity"

The antagonist concept of "Autonomy", "Insecurity" is measured in a similar fashion but testing different indicators. Again, there are three items in the 10-point scale section and two in the 5-point area.

The 10 -point scales to measure valuation of the concepts are phrased: "My income is very stable. I earn approximately the same every month. – My income is very unstable. I earn something different every month.", "I know in advance how much I will earn each month. – I don't know in advance how much I will earn each month.", and "I know in advance how many tasks I will be offered each month. – I don't know in advance how many tasks I will be offered each month.". These questions answer opportunities are shown on a scale from 1 to 10, 1 being closest to option one of the questions, gradually moving towards a favour for option two until a very strong favouring of option two at point 10. These items deal with perceived Insecurity, a low score indicating low levels of Insecurity and a high score expressing high levels of perceived Insecurity. Consequently, there was no reverse conducted.

Thinking back to the theory section, the first two indicators do observe dimensions of income insecurity. The third one in the bundle does aim to detect prevalence of job insecurity.

The 5-point scales are formulated like: "Financial Security is more important to me than free time.", and "A stable income is the most important feature of a job." The possible answers were starting at "strongly agree…(1)" and ending at "strongly disagree…(5)". These questions are dealing with job insecurity. A low score on these scales translates to a high value for Insecurity. Thus, the values have been recoded, so a logical value responding was created. More information about the reversing procedure is given in the upcoming section about Computation.

While the first indicator is observing job insecurity, the last insecurity observation is a hybrid. It does collect data about a facet that does belong to income insecurity (stable income)

but does observe this dimension integrating a part of a job feature, thus also corresponding with job insecurity.

Computation of variables for Analysis

To answer the research question, the Data was modified post-collection. The question order of the items measuring the independent variables has been randomized to control for a possible effect that a strict order could have on the answers. Modification of the items themselves has been done in two steps. The indications have been combined to an overarching variable. To make this possible first the scales had to be recoded, so their values would have the same direction, then they have been normalized, and combined. The upcoming section discusses the exact procedure.

To prepare the data for a logical analysis multiple steps were performed. First the 5-point items were adapted. Foremostly it had to be ensured that a high score on the scales would correspond with a high preponderance o the referred to concept. As shown above this was rarely the case. In fact, all four of the Likert scales in this category were reversed. How these scales have been normalized will be discussed at the end of this section.

The complimentary scales using the 10-point measurement also were recoded. The direction of the bundle measuring Insecurity was already correct so only the Autonomy indicators were reversed.

The five indicators for both Autonomy and Insecurity have been combined to one variable. This was done by normalizing the scales which measured the values. This was done simply by doubling the values of the five-point scales to correspond to an equal range. By taking an overarching average of the results a combined indicator was created. For both measurements five indicators have been combined.

This decision has been grounded by a Reliability Analysis. Due to the fact that the count of indicators is so small, Guttmann's Lambda 2 was used as an indication of reliability instead of Cronbach's Alpha (Cortina, 1993).

The tables bellow show the first conduct of the reliability analysis.

Table 2 Reliability Analysis Autonomy, all items

	Guttman's Lambda 2
Autonomy	.46

Table 3 Reliability Analysis Insecurity, all items

	Guttman's Lambda 2
Insecurity	.35

To be able to successfully combine indicators Guttman's Lambda 2 requires a score of at least .5. (Bhatnagar, Kim, & Many, 2014) In this setting both concepts cannot be measured with a combined indicator due to lacking reliability. To proceed both measurements had to be considered and adjusted.

Autonomy. For Autonomy statistical analysis showed a low connection between Task Availability and the rest of the indicators. Thus, this indicator was removed, and the analysis rerun.

Table 4 Reliability Analysis Autonomy, excluding Task Availability

	Guttman's Lambda 2
Autonomy	.61

These results do allow for a combination of indicators.

Insecurity. The reliability Analysis for Insecurity was reconducted with the indicator of Task Predictability excluded.

Table 5 Reliability Analysis Insecurity, excluding Task Prediction

	Guttman's Lambda 2
Insecurity	.67

Again, a combination is possible in this setting.

Interestingly, the factors removed, Task Availability and Task Predictability, are items which have been designed to test both Autonomy and Insecurity through the same concept. Naturally, the reason for those two measurements to be outliers can be due to the formulation

of the question. Another possibility is that the theoretical framework for labour supply and demand in Platform Economy Literature is wrongly estimated and in need of revision. What these expressions do indicate for my research and overall literature is discussed in section 6.

This section showed how the values for the quantitative analysis were established. Before section 5 explains the Logistic Regression, the next paragraphs discuss overall data features, and bivariate relationships of the data set.

4.3 Overall Data Distribution

Next to values that have been collected specifically for answering the research question, there is other aspects of a respondent's life and without these naturally main independent indications alone cannot stand. It is crucial to take at least basic demographics into account when attempting to explain the background workings of a dependent variable. The upcoming paragraphs will be used to discuss the overall shape and context of the sample. After doing so, it will be concluded which data is relevant and feasible to be taken into account.

Before doing so the most basic features of key variables will be discussed to give the reader an overview of the data which is utilized.

Table 6 Descriptive Statistics for Key Study Variables

Variables	Mean	S.D	Min	Max	N
Regular Job Aspiration	.44	.50	0	1	85
Age	31.39	9.35	18	62	82
Education					
Lower					18
Undergraduate					33
Postgraduate					36
Flexibility over Income	3.63	1.14	1	5	98
Day Organisation	4.51	.69	2	5	98
Income over Freetime	3.41	1.11	1	5	98
Income Importance	3.45	1.46	1	5	98
Income Stability	6.46	2.78	1	10	89
Income Predictability	6.89	2.83	1	10	89
Task Predictability	7.10	2.83	1	10	89

Task Availability	6.02	2.74	1	10	89
Task Selection	6.45	3.40	1	10	88
Task Execution	6.06	3.14	1	10	89
Autonomy	7.27	1.74	3.5	10	98
Insecurity	4.81	1.35	1	7.25	98

Now, each variable will be discussed shortly. This mentioning entails a discussion of the mean values, their distribution, and in turn what these values represent about the sample.

Regular Job Aspiration, as a reminder this abbreviation stands for "Aspiration of a regular job in wage employment" is the dependent variable. The recorded mean for this indication is .44, the possible answers did range from 0 to 1. 0 stands for "yes I would prefer to fulfil the same function in a regular job…" and the 1 indicates "no I would not like to fulfil the same function in a regular job…". A mean of .44 indicates that 44% stated the first, confirming, option as an answer. This means that 44% of the crowdworkers observed in the sample would rather work the same job in a regular wage employment arrangement.

The average Age of the sample is 31.39, with a range from 18 to 62 years. The standard distribution is 9.348, indicating that the average respondents age is clustering around young adults. With a variable and range like this it is only natural to observe positive skewness and kurtosis.

Education is shown in three rows that get discussed combined as they are part of the same observation, but in the survey have been measured through different items. Once, the observation to test the education of German speaking respondents, and a slightly modified item to discover the age of their international counterparts. Later, the variable was recoded into an ordinal measurement that would divide in three categories. As seen above these are lower education, as well as undergraduate, and postgraduate respondents. If one would divide this data set according to platform assignment it would be recognized that education levels in between those groups are not at all homogeneous. This is not relevant to my observation though and thus will only be discussed as a limitation later in the paper. Looking at the numbers an approximate

41% are postgraduate respondents. These numbers do fit quite well with the international average as reported by the OECD(OECD, 2016).[2]

Flexibility over Income, stands for a surveillance of Autonomy, in which the respondent gets asked to indicate how much he/she values flexible decisions versus a stable income. The item is formulated: “It is more important to me to be flexible in deciding when and how much I want to work than to have a stable income.” The average response here is 3.63 with a standard deviation of 1.143. Although the answers only do range from 1 to 5 there is a minimal negative kurtosis observed.

Day Organisation is a kind of similar review of Autonomy only that it excludes the indication of a trade-off with income stability. At this point the reader is reminded that the survey-item-order has been randomized for the respondents so there is no conclusion to be drawn about the influence of order. The component has been phrased as follows: “It is very important to me to be able to organize my daily activities in the way I want.” The mean answer value is 4.51 which is quite high, or low depending on how you want to argue. The answer was quite homogeneous, and the given answers only ranges from 1 to 5, so the distribution is quite skewed (-1.47) which in turn did naturally cause kurtosis (2.20).

Security over Leisure is the counterpart to Flexibility over Income. The inspection has been phrased like: “Financial security is more important to me than free time.”. Contrary to the previously discussed item, this question was answered in a little more diverse way again. A mean of 3.11 indicates multiple opinions and the standard deviation of 1.044 hints not at high but at least at higher diversity. Although there is a kurtosis of -.579 observed, the distribution is close to normal as the answers are hardly skewed (-.118).

Income Importance has been answered with a mean of 3.41 and a Standard Deviation of 1.111. The element has been phrased: “A stable income is the most important feature of a job.” A skewness of -.224 indicates that the mean has been influenced by a few outliers which deviated from the general trend of this question.

Income Stability is not measuring quantity of income but only its constancy. This was done via identification on a scale in between: “My income is very stable. I earn approximately the same every month. - My income is very unstable. I earn something different every month.”.

[2] https://data.oecd.org/eduatt/population-with-tertiary-education.htm

The answer possibilities would reach from 1 (stable) to 10 (unstable), the whole spectrum of answers was used by the respondents and the mean response is 6.46. This resonates that crowdworkers are confronted with a rather instable income situation. A standard deviation of 2.776 shows that this is not a uniform situation as the standard clusters around a "rather stable than instable" income. The high standard deviation does resonate with a -1.017 kurtosis.

Income Predictability is the component measuring the predictability of the interviewed's income. "I know in advance how much I will earn each month. - I don't know in advance how much I will earn each month." was the formulation employed to detect this indication. The mean of this question is 6.89 and the Standard Deviation is 2.83. Looking at the paragraph above one can already see that these indications perceptions are related to an extent in which the results do approximately level.

Task Predictability is Income Predictability's counterpart but studying tasks rather than capital. This elements design looked like: "I know in advance how many tasks I will be offered each month - I do not know in advance how many tasks I will be offered each month.". The mean answer to this component averages at 7.10 and it does this with a Standard Deviation of 2.829.

Task Availability was phrased as: "I have many opportunities to accept tasks. - I have few opportunities to accept tasks.". These elements' mean circulates quite close among the middle of the possible spectrum, which also has been utilized to its full extent by the respondents. The average reply is 6.02 with a Standard Deviation of 2.739.

Task Selection is an item coded to observe the crowdworkers autonomy in choosing which tasks he/she engages in and which not. This item represents the most heterogeneous of my components. It does not only contribute the highest Standard Deviation (3.397) but also constitutes the highest kurtosis (-1.411). These values do orientate themselves around a mean of 6.45, thus indicating a minimal orientation toward an autonomous perception of task selection. The way in which this element was operationalized was: "I can choose which tasks I want to work on. - I have to take every task I can get.".

Lastly Task Execution will get discussed. "I can choose how I approach a task and be creative. - I have to strictly follow procedures when I approach a task.". The aim of this component was to assess if and to what extent people are free to decide how to approach a task or

how far they are regulated by pre-set requirements. This indication was answered in a quite broadly distributed fashion again with a mean of 6.06 and a Standard deviation of 3.142.

After discussing general variables that have been tested in the survey, the next part introduces the variables that are used in the Logistic Regression.

Hypothesis Variables

In the upcoming part the appearance of the main variables for Hypothesis testing will be discussed. As a reminder the Hypotheses were:

H1: High levels of perceived Autonomy cause a weaker aspiration of a regular job in wage employment.

H2: High levels of perceived insecurity cause a stronger aspiration of a regular job in wage employment.

Firstly, the dependent variable "Aspiration of a regular job in wage employment", and secondly the two independent variables "Autonomy" and "Insecurity" will be observed taking their distributions into account.

Regular Job Aspiration

The key observation that was made in the data collection process is the measurement of Regular Job Aspiration. While 15% did not answer this question, legitimately possible because it was not forced in the questionnaire, the remaining 85% was rather balanced. In total, 37 respondents answered to look at wage employment in a preferential way, that is 43.5% of the valid respondents, as opposed to 56,5% or 48 replies indicating to prefer employment in the platform economy. These results do not look striking, except for the fact that there are sufficiently large groups on both ends to conduct statistical analysis. Nevertheless, looking at preceding studies of self-employment, when there was an item inquiring along similar lines, respondents were less prone to give a positive response of desiring regular labour contracts (Kautonen et al., 2010). This fact alone is a finding worth mentioning.

Only when someone indicated Regular Job Aspiration the survey would ask another question, observing if the respondent would also change to a regular job with less pay. The group that answered positive for Regular Job Aspiration was 27 respondents, roughly a third. In this group 9 answered with yes to desire a regular job in wage employment with less pay.

Considering percentages, from Regular Job Aspirants, 25% would still choose standard over platform employment even if their financial situation was degraded. The observation that 9% of the total respondents would change employment even with a financial downgrade is a finding. These individuals seem to be put under extensive pressure by their platform employment and perceive it as burdensome.

Looking at the age distribution one cannot detect a trend which would be worth mentioning. The only curious remark at this point is that the same five respondents that indicate they would prefer a regular job also answered to stick with this opinion in case of lower pay offered by the standard employer, these respondents did all three belong to the last quartile of the age distribution. This observation naturally bears little scientific relevance and is stated merely as an interesting fact.

Next the basic descriptive statistics of the two independent indicators are described.

Autonomy

The mean value of this combination is 7.27. Respondents did score high on the Autonomy items. The standard deviation is 1.74, there might be deviation but only minor. The most interesting observation are the maximum and minimum of both indications. For Autoomy this has been 10 and 3.5.

Insecurity

The mean of Insecurity is 4.81. The extent to which Insecurity as perceived less by the respondents in comparison with Autonomy is striking. A standard deviation of 1.35 is little. The maximum score of Insecurity was 7.25 and its minimum 1.

Comparing maximums and minimums, the first thing noticed is that for Autonomy there is respondents scoring a straight 10 on perceived Autonomy. The strong perception of Autonomy, predicted by the literature, is shown here. On the other hand, there is crowdworkers which do feel no Insecurity, minimum 1. This is not predicted by any theoretical background.

4.4 Bivariate relationships

To gain further insight in the data, bivariate tests are a suitable option. With this tool, one can already detect basic correlations and understand relations in the dataset better.

Original Indicators

Table 6 below shows bivariate relationships detected by t-tests. The t-test is used to detect difference between two samples.(Skaik, 2015) The sample split that has been conducted in this analysis is a division according to the dependent variable. This means the sample was split according to the answer of the item Regular Job Aspiration, once creating a sample of positive respondents and the second being the sample of negative respondents. There are three significant relationships that correspond with my hypothesis. These interactions are shown and their direction discussed by comparing means.

Table 7 t-values independent sample t-tests, mean variable for dependent

Variables	Regular Job Aspiration (Yes/No)	Mean Yes	S.D	Mean No	S.D
Flexibility over Income	2.56**	3.08	1.14	4.00	.99
Day Organisation	3.75	4.41	.798	4.65	.565
Security over Leisure	1.199	3.30	1.05	3.06	1.02
Income Importance	.306**	3.97	.957	3.04	.967
Income Stability	.001	6.53	2.98	6.5	2.73
Income Predictability	6.51^{+}	6.53	3.26	7.31	2.52
Task Predictability	.133	7.53	2.74	7.06	2.82
Task Availability	.270	5.54	2.91	6.27	2.69
Task Selection	4.03^{+}	5.64	3.63	7.13	3.10
Task Execution	6.279^{*+}	5.08	3.38	6.88	2.73

Note: * $p < .05$, ** $p < .01$, $^{+}$ equal variances not assumed/ levene's test significant.

The independent sample t-tests detected a significant relationship between Aspiration of a regular job in wage employment and flexibility vs. income stability. SPSS reports a t-indication of 2.56. Looking at the t-indication, the means, and crosstabulations, these instruments confirm a negative relationship between the variables, which means that people that consider flexibility more important than income stability (low scores on the 10-point scale) would rather not fulfil the same function in a regular job in wage employment (the score 2 of the dichotomy). This hints towards a possible confirmation of H1 but naturally these conclusions cannot be drawn at this point of the analysis.

Looking at the variable Income Importance the sample tests confirmed a significant relation between the indicator and the dependent variable. The indication that the t-test give (-.306), are again paired with a background check of the mean and crosstabulations. In the result, there is a positive relationship between the assessment of income as the most important feature of the job (low scores on the 10-point scale) and the answer of Regular Job Aspiration (score 1 of the dichotomy). .306 is a weak indication and thus there are no conclusions drawn.

The third significant relationship between my independent and dependent main variables is the connection between autonomous task execution and aspiration. A t-test score of 6.279 suggest that people that perceive themselves to be free in deciding how to approach a task are less likely to aspire a regular job in wage employment.

After analysing t-values for the “stand alone” indicators, the next section shows t distributions for the combined items.

Combined Indicators

As introduced before, for the final analysis overarching indicators have been computed. These indicators have been further analyzed with a t-test as well as by comparing means. The results are shown in Table 8 and discussed in the paragraphs bellow.

Table 8 Mean distribution of combined indicators

Regular Job Aspiration	Autonomy	Insecurity
Mean Yes	6.44	4.98
Mean No	7.82	5.05
Mean-Difference	1.38	-.07
t-values, independent sample t-test	3.476**	-.240

Note: * $p < .05$, ** $p < .01$, $^{+}$ equal variances not assumed/ Levene's test significant.

Looking at Autonomy, one can see a strong indication with high significance. A split sample mean comparison shows that people that respond with yes to Regular Job Aspiration have a mean score of 6.44 in comparison with those who said no which score 7.82. That make for a mean difference of 1.38. The indication implies that people who aspire a regular job are feeling less autonomous. This is another support for Hypothesis 1.

The t-indication of Insecurity is not significant. This is evident in the regression analysis and is further discussed later. The reported mean difference is -.07. This is very low and already hints towards what is discussed in the next section.

After analyzing the t-tests of the values used in the regression the next section explains this topic.

5. Logistic Regression

To produce meaningful results with the data, the employment of logistic regression is required. Logistic regression does not make any assumption known from linear regression or other least-square-algorithms. It works with a non-linear relationship between the dependent and independent variable. This stems from the fact that it applies a non-linear log transformation on the predicted odds ratios. Although some argue that multivariate normal independent variables yield more stable results this is also not required. Its ability to handle nominal data as

independent variable is its main appeal for this analysis. Another fact that appeals is the robustness against heteroscedasticity of the logistic regression model.

What this type of analysis requires is reviewed bellow.

5.1 Assumptions

There is multiple conditions that are required to conduct this type of regression analysis(Peng, Lee, & Ingersoll, 2002).

Binary logistic regression requires the dependent variable to be dichotomous. This can be a problem if the dependent variable gets reduced to a dichotomy from an ordinal or even metric level. This step would create a huge loss of information, if the dependent variable is coded as a dichotomy, like it is, in the first place this problem does not occur.

Logistic regression assumes P(Y=1). That means the facto level 1 should represent the desired outcome (1=YES, If you could choose freely, would you prefer to fullfill the same function in wage employment? (with a standard working contract)).

Thirdly, the model needs to be fitted correctly. This means that only the meaningful variable should be included but also all meaningful variables need to be included. This assumption cannot be estimated now but will be cared for on the way of implementing the logistic regression using a stepwise method.

Fourthly, the residuals need to be independent. Logistic regression needs to be applied to independent observations, so interrupted times series would not work for example. Multicollinearity is another issue. The independent variables should be independent of each other.

While logistic regression does not require a linear relation between dependent and independent variable a key assumption that must be fulfilled is the requirement of linear relation between the independent variables to the log odds. A possible solution can be the categorization of the independent variables, so categorizing metric variables as ordinal indicators.

Lastly, logistic regression requires a sufficiently large sample size. The literature agrees that at least 100 observations are required per independent variable(Peng et al., 2002), but some scholars suggest more to be required. Due to the fact that my model will include two combined indicators as well as two control variables this assumption is met.

5.2 Interpretation

The value that is interpreted in my regression is the exponential B coefficient. This coefficient is an odds ratio and can range from zero to infinity. Everything from zero to one is a negative effect and everything above one a positive indication.

5.3 Hypothesis Testing

The process of Hypothesis testing was conducted in a step by step manner. This allows to double check for bias and provides the opportunity to see how the variables do influence each other as they are added one by one. In Table 7, the complete logistic regression is summarized.

Table 9 Logistic Regression, Exp(B) values

	Model 1	Model 2	Model 3	Model 4
Age	1.01	1.01	1.01	1.01
PrimaryIncome	1.01	.959	.989	.959
Education	.931	1.08	.906	1.02
Platform Type	.459	.793	.408	.832
Autonomy		.613**		.606**
Insecurity			1.174	.956
X^2	2.72	11.11	.774	10.38
df	4	1	1	1
p	.605	.001	.379	.001
R^2	.045	.213	.057	.213

Note: * p < .05, ** p < .01, Nagelkerke R^2, N = 80

Model 1

Model 1 is a basic regression that only includes the control variables. This has the purpose to check if these might explain parts of my dependent variable. Consequently, running Model 2 afterwards gives information if the added value does contribute something to the attempted explanation.

The included control variables are Age , PrimaryIncome, Education, and Platform Type. Age is included to check if there is a potential more conservative opinion which could shape

the perception of the platform economy. Primary Income is likely to contribute to this relationship as the platform economy as a main income source would increase dependence. Education and platform type have both been included for their potential to explain results. Education is a main shaper of someone's ideology and thus could relate to such practices. Platform type potentially contributes as the type of work that is mediated by the platform could very well shape its perception. There is no significant relation between the dependent variable, and Age, PrimaryIncome, Education, and Platform Type.

Model 2

Additional to the control variables, Model 2 does also include the combined indicator for Autonomy. In this setting, a significant negative effect of Autonomy is detected. The effect reported above is the exponential of the log odd which is .613. The odds to aspire regular job employment for respondents with high perceived Autonomy are .613 times lower in comparison with people that perceive low autonomy. Hereby Hypothesis 1 is declared to be validated. A higher perception of Autonomy does cause a weaker Aspiration of a regular job in wage employment.

Model 3

Model 3 is including both the control variables and the indicator of Insecurity. Insecurity does contribute in a positive direction to the explanation, but its relationship is not significant in this setting. Thus, Hypothesis 2 is negated at this moment. Lastly, all indicators are put into the regression model.

Model 4

Model 4 does incorporate all control variables and its does also control for Insecurity and Autonomy. The relationship with Autonomy is again highly significant. Its effect size has increased from 6.13 to 6.06. Please consider that with the exponential B everything bellows 1 is negative and thus lower values do correspond with a stronger indication.

Insecurity does not contribute in a significant way. Its non-significant value of .9.56 is facing the opposite direction which has been estimated by our hypothesis drawn from the background literature. This limitation is a misinterpretation of the role of Insecurity in the Platform

economy or should this not be the case the attempt of observing this construct was conducted with unfit indications. A reflection on this is presented in section 6, the conclusion, which follows this chapter.

6. Conclusion

Economists and social scientists observed the rise of a new movement, the platform economy. Some see a new way of business, some a new class in the social struggle. This development is so recent and vivid, there is no indication that allows a definite conclusion. Rather than the predicted state of overproduction and domination of size, that was predicted by many anti-capitalist theorists, there is an adaptation in function of the economic players observed. This paper sets out to assess whether this development is a societal bottom-up movement, or a market dictated process coming top-down. The relevance of this question is clearly supported by the fact, that intensified global competition and ordinary large-scale tax evasion have driven the distance in-between rich and poor to an unprecedented scale, and that the furthering of plutocracy can be observed globally.

The first conclusion of this study is that the dependent variable, Regular Job Aspiration does exist to an extensive extent in the platform economy. It should be reemphasized that in the current sample 44% of the valid responses indicated to prefer a potential traditional arrangement over their momentary digital labour mediation. There is no association between basic demographics or other general important features that would explain parts of this proportion. The literature expectation of involuntary self-employment (Amuedo-Dorantes, 2000; Dingemans & Henkens, 2014; Kautonen et al., 2010) is revalidated with this result. Its strong characteristic is especially striking when being compared with studies about traditional self-employment (Kautonen et al., 2010). This prevalence suggests a stark difference between self- and platform-employment.

For other insights the association between autonomy and the aspiration of a standard job in wag employment is given. Autonomy appears to be a high valued work feature throughout the sample causing a lower Regular Job Aspiration. Hypothesis 1, which did test the relationship between autonomy and the aspiration of a regular job in wage employment, was confirmed on the base of logistic regression. The models detected a highly significant association that would make respondents, perceiving high Autonomy less likely to aspire a job in standard employment.

This articles contributions are not only new insights about Autonomy and the perception of platform employment by crowdworkers themselves. It shows that indeed there are people that do work for online labour mediators on a voluntary basic and that Autonomy is a strong pull factor for those individuals. But also, in the current sample, another group, involuntarily platform employed individuals are aimed to be represented. For Insecurity there is no confirmation of the theoretical expectations.

This can either come from flawed survey item design or inadequate theoretical perception about labour supply and demand in the platform economy. Both possibilities are suggesting this same underlying issue. The non-confirmed expectations are intertwined as Insecurity is measured solely through items observing potential income or income opportunities, the furthest deviations from this are items observing the predictability or stability of the resulting income. Crowdworkers contribute the labour supply of the platform economy. The extent of supply is not observed in this paper and thus the only conclusion that can be drawn is about labour demand. Insecurity was measured mainly with items asking about income and income opportunities. These observations estimate the relationship from the crowdworker, the labour supply, on the labour demand, the crowdworkers ability to engage in labour supply. Unfortunately, when working out the literature background for this paper the role of labour supply and demand was widely ignored as it was taken for granted, being the unit of analysis. This thesis prematurely focused on the motor mediating supply towards demand.

Reflecting on platform labour supply and demand, apart from literature expectations, an issue that needs discussion is the excluded indicators. Both for Autonomy and Insecurity one item was excluded because it did not fit with the other indications. For Autonomy this was Task Availability, the element supposed to capture labour demand from an Autonomy perspective. Similarly, the component excluded from the Insecurity viewpoint was Task Predictability, correspondingly meant to measure labour demand. The question formulation for those items has been inherited from traditional labour studies and with this paper have proven themselves to be widely inapplicable for a platform economy study. After an assessment of published platform economy literature, a suggestion for future research about the platform economy is suggested. The necessity to improve labour supply items for the setting of this thesis is given. The suggestion voiced in this paper is not only this but an overall study about labour supply in the platform economy. The questions most pressing are: “Is every task posted in the platform economy

completed?", "What happens to uncompleted tasks posted in the platform economy?", and "How does the platform economy respond to an oversupply of tasks?".

The pulling factor of skill acquirement is not part of the theoretical framework of this study. Especially in one of our main data sources, Jovoto, this was a reoccurring motivation mentioned in the section that observed suggestions for the study. It can be estimated that an individual that employs itself in the platform economy to top up insufficient income is not affected by this concept. But especially when conducting a study focusing on high end tasks, or employing wealthy platform workers this motivation cannot be underestimated and at least needs to be controlled for.

Strongly intertwined with this is the distinction between on-demand household services, and on-demand professional services. The distinction that parts individuals desiring skill acquirement from their counterpart is found in this distinction. Looking at the broad range of labour organised in the platform economy there is no homogeneity. The accomplishment of a voluminous enough sample to effectively compare two groups from both conceptual backgrounds does exceed the reach of a Bachelor Thesis. Future research should strive to include participants in both task supplies and potentially introduce further distinction to the nature of platform work.

The reflections so far do widely represent results of the regression Analysis. There are conclusions to be drawn from univariate analysis too. Supposing that the measurements for Insecurity were representative one can analyse the distribution of the combined indicators. Insecurity was in some cases perceived at minimum level and Autonomy at maximum level, but not the other way around. Of course, this could stem from falsified questionnaire items, but this option is included for this reflection. For Autonomy this result does make sense and confirms theoretical expectations. The result for Insecurity does imply that Insecurity is not as common in the platform economy as the literature suggests.

Another outlook for future research is that the sample method is a main factor. While, with the very limited resources of the research team, only socially engaged crowdworkers could be contacted the extent to how far hand-to-mouth customers do engage in last minute platform activity to close the last financial space to pay bills would be highly relevant to better observe the role that insecurity does play in this sector. In terms of observing Autonomy, a stronger emphasis on individuals who identify as "Digital Nomads", travellers that employ themselves

via the internet disconnected to their spatial context, could contribute to observe a new societal movement that has caught up pace throughout the globalization. Secondly observing a global movement should not be limited to language barriers. Especially in countries with a weak currency, platform employment can be very intriguing because the proportional remuneration (in hard currencies) is great. So, for the attempt to create a responsive sample the exclusion of such a main part of the platform economy leads to imitations. A large-scale data collection would also allow to engage with crowdworkers from a broad variety of platforms, representing multiple ways of task completion and monetizing of human effort. The narrow research design did not allow to address such issues here, but it provides a necessary indication that this topic is worth investigating and urges researchers to aspire a nuanced understanding of the economic and social backgrounds of crowdworkers employed in the platform economy.

References

Ahuja, M. K., Chudoba, K. M., Kacmar, C. J., McKnight, D. H., & George, J. F. (2007). IT road warriors: Balancing work-family conflict, job autonomy, and work overload to mitigate turnover intentions. *Mis Quarterly*, 1-17.

Amuedo-Dorantes, C. (2000). Work transitions into and out of involuntary temporary employment in a segmented market: evidence from Spain. *ILR Review, 53*(2), 309-325.

Anders, H. H., & Iwona, M. W. (2016). Transaction costs and the sharing economy. *info, 18*(1), 1-15. doi:doi:10.1108/info-09-2015-0044

Bhatnagar, R., Kim, J., & Many, J. E. (2014). Candidate Surveys on Program Evaluation: Examining Instrument Reliability, Validity and Program Effectiveness. *American Journal of Educational Research, 2*(8), 683-690. doi:10.12691/education-2-8-18

Calo, R., & Rosenblat, A. (2017). THE TAKING ECONOMY: USER, INFORMATION, AND POWER. *Columbia Law Review, 117*(6), 1623-1690.

Cortina, J. (1993). *What Is Coefficient Alpha? An Examination of Theory and Applications* (Vol. 78).

De Stefano, V. (2015). The Rise of the Just-in-Time Workforce: On-Demand Work, Crowdwork, and Labor Protection in the Gig-Economy. *Comp. Lab. L. & Pol'y J., 37*, 471.

Dingemans, E., & Henkens, K. (2014). Involuntary retirement, bridge employment, and satisfaction with life: A longitudinal investigation. *Journal of Organizational Behavior, 35*(4), 575-591.

Donini, A., Forlivesi, M., Rota, A., & Tullini, P. (2017). Towards collective protections for crowdworkers: Italy, Spain and France in the EU context. *Transfer-European Review of Labour and Research, 23*(2), 207-223. doi:10.1177/1024258916688863

Drahokoupil, J., & Fabo, B. (2016). PlatformeconomyDrahokoupilFaboPolicyBriefPB2016.051.pdf>The platform economy and the disruption of the employment

relationship. *ETUI Policy Brief, European Economic, Employment and Social Policy*.

Jansen, G. (2017). Farewell to the rightist self-employed? 'New self-employment' and political alignments. *Acta Politica, 52*(3), 306-338. doi:10.1057/s41269-016-0030-0

Joshi, A., Kale, S., Chandel, S., & Pal, D. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology, 7*(4), 396.

Kalleberg, A. L. (2009). Precarious work, insecure workers: Employment relations in transition. *American sociological review, 74*(1), 1-22.

Kautonen, T., Down, S., Welter, F., Vainio, P., Palmroos, J., Althoff, K., & Kolb, S. (2010). "Involuntary self-employment" as a public policy issue: a cross-country European review. *International Journal of Entrepreneurial Behavior & Research, 16*(2), 112-129.

Kenney, M., & Zysman, J. (2016). The rise of the platform economy. *Issues in Science and Technology, 32*(3), 61.

Minter, K. (2017). Negotiating labour standards in the gig economy: Airtasker and Unions New South Wales. *Economic and Labour Relations Review, 28*(3), 438-454. doi:10.1177/1035304617724305

OECD. (2016). Population with tertiary education. Retrieved from https://data.oecd.org/eduatt/population-with-tertiary-education.html

Peng, C.-Y. J., Lee, K. L., & Ingersoll, G. M. (2002). An introduction to logistic regression analysis and reporting. *The journal of educational research, 96*(1), 3-14.

Reilly, P. A. (1998). Balancing flexibility—meeting the interests of employer and employee. *European Journal of Work and Organizational Psychology, 7*(1), 7-22.

Skaik, Y. A. (2015). The bread and butter of statistical analysis "t-test": Uses and misuses.

Sverke, M., & Hellgren, J. (2002). The nature of job insecurity: Understanding employment uncertainty on the brink of a new millennium. *Applied Psychology, 51*(1), 23-42.

Tank, E. P. T. (2017). <IPOL_STU(2017)614184_EN.pdf>. *The Social Protection of Workers in the Platform Economy, 07-12-2017*.

Thompson, C. A., & Prottas, D. J. (2006). Relationships among organizational family support, job autonomy, perceived control, and employee well-being. *Journal of occupational health psychology, 11*(1), 100.

Wilthagen, T., & Tros, F. (2004). The concept of 'flexicurity': a new approach to regulating employment and labour markets. *Transfer: European Review of labour and research, 10*(2), 166-186.

International Labour Review (1997, April). Perspectives Vol. 136 No. 4, Part-time work: Solution or trap? - International Labour Review - Publications. Retrieved May 16, 2018, from http://www.ilo.org/public/english/revue/articles/97-4.htm

Kohn, M. L. (1995). 'Social Structure and Personality through Time and Space'. In: Moen, P.,

Elder, G. and Lüscher, K.E. (eds)Examining Lives in Context: Perspectives on the Ecology of

Human Development. Washington, DC: American Psychological Association, pp. 141–168