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Motivation Assessments of Temporary Agency Workers – an Empirical Analysis Based on Appraisals Compiled by Hiring Companies**

Abstract

We investigate the relationship between individual and job-related characteristics and motivation assessments of temporary agency workers. To do so, we make use of a unique dataset from one of Germany's largest temporary work agencies. For 3,000 temporary agency workers, a subjective motivation appraisal is provided by the respective direct manager within the hiring company. We observe a positive relationship between the decision on transition to regular employment and the motivation assessment of temporary agency workers. Women in temporary agency work receive higher appraisals than men. However, the relation between project duration and motivation assessment is more pronounced for males. A change of the hiring company with follow-up projects is negatively related to motivation assessments of temporary agency workers.

Keywords: temporary agency work; atypical employment relation; motivation; work morale; appraisals
(JEL: M12, M55, J81)

Introduction

The temporary agency work sector in Germany has experienced major change processes in recent years. In June 2017, over one million people were employed in temporary agency work which was subject to social insurance obligations. With this figure, the number of temporary agency workers in Germany has tripled in the last ten years. Roughly 11,000 temporary work agencies and personnel service providers employ individuals in Germany who work for customer companies on a temporary basis through personnel leasing. Temporary agency workers now account for almost 3% of the employment positions which are subject to social insurance obligations (BfA, 2018). Temporary agency work in Germany is typically based on a triangular

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structure. A temporary work agency (also referred to as a personnel service provider or a staff leasing agency) concludes an employment contract with a temporary worker. Temporary agency workers perform their work with a hiring company (or customer company of the temporary work agency), are loaned out to this company for a limited period for project work and work on the premises of the hiring company for this purpose. The precise role is regulated by the terms of the personnel leasing contract, which is agreed between the temporary work agency and the hiring company. A peculiarity of temporary agency work is the contractual arrangement between the temporary work agency and the temporary agency employee. The employment contract agreed between these two parties is often unlimited, whilst the personnel leasing contract between the temporary work agency and the hiring company is usually limited in the form of a labour or service contract.

The employment motivation of the employees is greatly significant for companies, because it has a positive influence on self-initiative and identification with the company for example, whilst it also reduces absenteeism and fluctuation (Brandstätter & Schnelle, 2007; Siemund, 2013). Many findings regarding the motivation of employees are based on theoretical considerations and empirical studies, which focus primarily on regular employees and are not directly transferable to atypical employment relationships. For temporary agency workers, based on the different employment conditions alternative effect mechanisms may act on their motivation (Siemund, 2013).

An analysis of the motivation of temporary agency workers is therefore of interest to all three parties involved in temporary work, both generally and specifically from their varying perspectives. For the temporary work agencies, as well as the customer companies and the temporary agency workers themselves, the latter's motivation plays an important role.

Firstly, *temporary work agencies* generate their sales through the project-based leasing or loaning of their personnel to their customers. An appealing pool of motivated employees, who can be offered to the customer companies and loaned out to them for their projects, is therefore an important competitive factor. The motivation of the leased temporary agency workers as perceived by the customer companies, and the associated contribution of the temporary agency worker to the project, can be viewed as a decisive factor for the award of further orders to the temporary work agency. Secondly, temporary agency workers can make an important contribution to the productivity and profit of the *customer companies*. A positive influence on the business results of hiring companies requires motivated and ambitious temporary agency workers. Thirdly, an analysis of the characteristics that influence the motivation of *temporary agency workers* is also beneficial from the perspective of the temporary agency workers themselves. In the opinion of Siemund (2013), temporary agency workers benefit from greater working motivation because this promotes their personal development and their confidence in their own work, for example.

Furthermore, personal motivation usually has a positive effect on job satisfaction (Judge, Bono, Thoresen, & Patton, 2001). Finally, there are reasons for suspecting that a positive assessment of the motivation demonstrated by temporary agency workers also provides an indication of their future career prospects.

Since motivation, defined as the willingness of employees to apply their skills and abilities in their work (Kleinbeck, 2009), is an individual immanent construct, it is difficult to measure. A survey among employees would have the advantage of receiving information directly from affected individuals. It comes at the risk of socially desirable answers, though. This risk is evident particularly for situations in which employees may anticipate a relation between their answers and their further career prospects in the organization. We suppose that this problem would also be relevant for temporary agency workers in particular. Another approach can be to rely on motivation assessments by supervisors, HR-departments and the like. Applying the case of temporary agency workers, it then seems appropriate to refer to assessments by customer companies at the end of the temporary workers' corresponding projects, based on their recognized behaviour. The observable behaviour as a result of motivation is an important determinant for all three parties involved in temporary agency work. For the temporary work agencies, the assessments of the temporary agency workers are the feedback which they need in order to provide attractive offerings of temporary agency workers to hiring companies. These hiring companies can benefit in terms of effective decisions with regard to possible follow-up projects for or transitions into regular employment of workers. For the temporary agency workers themselves, the evaluation of their behaviour by the supervisors is determining their future career opportunities within the hiring company.

The aim of this work is to identify, through empirical investigation, the possible individual and job-related characteristics that are related to the motivation assessment of temporary agency workers. We refer to data on almost 3,000 temporary agency workers from one of Germany's largest temporary work agencies. In addition to personal information (e.g. gender, age, training and education), we also have access to the characteristics of their hiring companies and their projects, e.g. the transition to the hiring company and the project duration that is defined at the beginning of the project. At the end of a project, the hiring companies (represented by the respective temporary agency worker's direct manager) appraise the motivation of the temporary agency workers.

During the further course of this work, chapter 2 provides a definition of terms, and some relevant empirical findings to date are presented. Theoretical considerations of potential characteristics of the motivation of temporary agency workers and its assessment by hiring firms are discussed in chapter 3 followed by the description of data in chapter 4. We present results in chapter 5 and conclude in chapter 6.

Related Empirical Studies on Temporary Agency Work

Previous empirical work on temporary agency employment relationships focuses on a variety of issues from both the perspectives of the hiring companies and temporary agency workers. A first branch of the literature focuses on the motives of *the hiring companies* for using temporary agency workers within their operations. These examine why companies use temporary agency workers rather than regular employees. Flexible employment contracts, such as temporary employment, are often used as a means for increasing the capabilities of the companies, in order to react to changing market conditions (Nienhüser, 2005). Holst (2009, 2012) divides the operational usage strategies of temporary agency work into three categories: Ad-hoc use, the flexibility buffer and strategic use as a safety net against capacity risks in the sales markets. In the case of the last usage strategy, temporary agency work is deliberately used extensively, permanently and in multiple company areas (Holst, Nachtwey, & Dörre, 2009; Spermann, 2012). Promberger (2012a) generates a typology of the hiring companies, in which he identifies five different constellations of operational characteristics and framework conditions on the one hand, and figures for the use of temporary agency work as well as other flexibilisation instruments on the other hand.

Other studies identify certain company characteristics upon which the use or increased use of temporary agency work is dependent. With regard to company size, Promberger (2012b) ascertains on the basis of IAB data that the use of temporary staff follows certain regularities. According to these, small companies with fewer than 49 employees demonstrate a numerically low but proportionally very high degree of utilisation. In contrast, the extreme users of temporary agency workers include medium-sized companies with 50 to 499 employees. Starting with the competition strategy and the associated task complexity, Nienhüser (2007) develops a causal model for explaining atypical employment. According to his considerations, these employment forms are most common in companies with a short-term external employment strategy, which is characterised by low task complexity and therefore also by low requirements for human and social capital.

A large proportion of literature from the perspective of the *temporary agency workers* focuses on the *consequences and effects* of employment in temporary work on future career prospects. In many cases, the literature examines the opportunities for temporary agency workers of their being accepted into regular employment as well as the risk of future unemployment (Booth, Francesconi, & Frank, 2002; Crimmann, Ziegler, Ellguth, Kohaut, & Lehmer, 2009; Dütsch & Struck, 2014; Hopp, Minten, & Toporova, 2016; Kvasnicka, 2009; Lehmer & Ziegler, 2010). Other studies look in detail at the *employment conditions* and working arrangements of temporary workers in comparison to employees in a regular employment relationship (Brehmer & Seifert, 2008; Jahn, 2010; Jahn & Pazzoli, 2013; Kvasnicka & Werwatz, 2003a, 2003b; Letourneux, 1998; Nienhüser, 2005; Nienhüser & Mati-

aske, 2003). A further area of research focuses on the question of who a temporary agency worker is or what *characteristics* distinguish the group of temporary workers in comparison to employees in other forms of employment (Burda & Kvanicka, 2006; Crimmann et al., 2009; Dütsch, 2011; Jahn & Rudolph, 2002).

Temporary agency work is viewed by most workers as a transitional status and not as a profession (Siemund, 2013). With regard to the job motivation of temporary agency workers, understood as a willingness to accept a role on a temporary employment basis and to maintain this over an extended period and with difficulties, Siemund (2013) identifies some operational objectives of temporary agency workers or incentives of temporary agency work. These include the avoidance of unemployment, the hope that they will be taken on as permanent employees by the hiring company as well as the improvement of employability and positive work experience. Closely linked to the transition or acceptance theme is the voluntary nature (or involuntary nature) with which individuals have decided to work in temporary employment. Individuals who only view temporary agency work as an interim solution and are hoping to transfer to the hiring company deliver higher quality work (Marler, Barringer, & Milkovich, 2002). De Jong, Schalk and de Cuyper (2009) examine psychological contracts of temporary workers and permanent employees with the companies who employ them. The considerations include the probability of the promise of acceptance into permanent employment being met, for example. The authors were able to show here that the psychological contracts of temporary agency workers consist of fewer mutual promises, but that these are approached with greater motivation than those of permanent employees.

Despite the growing relevance of temporary agency work as a form of employment, quantitative studies on the topic of temporary agency work and motivation as well as motivation assessments are still rare.

Some studies focus on *job satisfaction* and *commitment* of temporary agency workers instead of motivation. According to Locke (1969), job satisfaction is seen as a positive emotional state that arises due to the individual's evaluation of their own work and their work experience. Work previously undertaken or experienced also plays an important role here, whilst motivation tends to reflect the willingness to perform work. This is an important difference between the two constructs. Dütsch (2011) observes that temporary agency workers are significantly less satisfied with their employment than comparable employees in regular employment are. These differences can be largely traced back to the differences between the employment and pay conditions (Nienhüser & Matiaske, 2003). In particular the actual – although also the subjectively perceived – job uncertainty plays a decisive role here (De Witte & Näswall, 2003; Grund, Martin, & Minten, 2015; Jahn, 2015). Furthermore, within the temporary agency worker group, Ellingson, Gruys and Sackett (1998) point out lower job satisfaction among those who are involuntarily working in this type of employment. Sende and Vitera (2013) expand on the topic of job satisfaction with

consideration to the aspect of loyalty to a company (commitment) on the part of temporary agency workers in comparison to regular employees or the core workforce within hiring companies. They assume that the common basis for both these concepts is the evaluation of the employment activity and the organisation in light of personal targets and values (Sende & Vitera, 2013). It is assumed that a high degree of satisfaction or commitment has a positive influence not only on the pure performance of the employee but also that it brings further positive effects with it. Examples cited include commitment beyond the contractual obligations, loyal representation of the company to third parties and faithfulness to the company even if appealing alternative employment prospects are on offer (Sende & Vitera, 2013). Within the framework of a qualitative investigation, Mitlacher (2008) observes commitment and identification with the customer company as particularly important elements, not only for the employment relationship in itself, but also for the indirect relationship between the temporary agency worker and the customer company. Problems are caused by the three-party construct of temporary work and through the increased complexity, uncertainty and the quality risk in the exchange relationship. Many attributes whose positive influence on job satisfaction and commitment have been demonstrated, are often present to a lesser degree with temporary agency workers (Sende & Vitera, 2013). Lapalme, Simard and Tremblay (2011) demonstrate a reduction in the effective commitment of temporary agency workers in Canada if expectations towards the hiring company are not satisfied.

The contribution of our study to the literature is threefold: Firstly, we are among the first to explore the motivation and motivation assessments of temporary agency workers. Secondly, we consider facets of both hiring companies and temporary agency workers instead of relying on one perspective only. Thirdly, we explore individual and job-based differences among temporary agency workers instead of treating them as a homogeneous group and comparing it with the group of employees in regular employment. We focus on determinants of the motivation of temporary agency workers assessed by the hiring company.

Theoretical Considerations

In this section we present theoretical considerations on the relationship between various characteristics and the motivation assessment of temporary agency workers. In detail we not only describe possible impacts on temporary workers' motivation but also consider possible impacts on the assessment of supervisors in the hiring company. We initially examine the job characteristics at the hiring company. We then focus on the individual characteristics of the temporary agency workers.

Remuneration of temporary agency workers is fixed from the beginning of the temporary work projects and not negotiated between the hiring company and the temporary agency workers, but determined by the agency firm. Hence, it seems unlikely that supervisors in hiring firms relate their evaluations to a worker's wage, so that

phenomena such as the avoidance of cognitive dissonance and the confirmation bias (Nickerson, 1998; Wason, 1968) are unlikely to be relevant. Social exchange concept assumes in general that in response to a beneficial act, individuals will reciprocate these gestures of goodwill in the future (Blau, 1964). In line, fairness or gift-exchange considerations (Akerlof, 1984; Akerlof & Yellen, 1990) predict relevance of reciprocal attitudes and behaviour. In this sense, the amount of an individual's remuneration can be positively related to motivation. Empirical investigations in the lab and in the field have already confirmed the relevance of gift-exchange behaviour (Charness, Frechette, & Kagel, 2004; Falk, 2007; Fehr, Kirchler, Weichbold, & Gächter, 1998; Gneezy & List, 2006). In the triangular construct between temporary agency workers, temporary work agencies and hiring companies, higher salaries could also be expedient for temporary work agencies if these salaries are accompanied by greater motivation on the part of temporary agency workers and follow-up contracts are therefore more likely from satisfied hiring companies. It may also be the case that temporary agency workers with very low wages compare themselves with other better treated employees react in a negative reciprocal way and show particular low motivation compared those temporary agency workers in other situations with better remuneration. These considerations lead to

Hypothesis 1: The amount of remuneration is positively related to the motivation assessment of temporary agency workers.

In addition to the role of the salary in the motivation assessment of temporary agency workers, the *project duration* can also be noted as a possibly meaningful job-based characteristic. Similarly to conventional employment relationships, temporary agency workers can enter into a form of psychological contract (Robinson & Rousseau, 1994) with the hiring company, whereby mutual expectations and obligations arise between the employee and employer, which exist beyond the legal employment contract. Accordingly, the psychological contract is consistently revised and intensified within the framework of longer-term cooperation. The longer the relationship lasts, the broader the spectrum of contents of the psychological contract. In the case of temporary work, such contracts may arise between the temporary agency worker and the hiring company in which the temporary agency worker is active.[1]

It can be assumed that more mutual obligations are entered into with the hiring company for longer projects, and that the acceptance of such obligations by the temporary agency workers is recognised in the assessment of their motivation. At

1 In addition to the effects of a psychological contract with the hiring company, such a contract is also conceivable with the temporary work agency. However, because the temporary agency worker does not work on their premises and does not meet with colleagues at the temporary work agency, the nature of a possible psychological contract would differ here. Because this relationship is not part of our empirical analysis, we do not wish to go into further detail in this regard.

first glance, a longer project duration may lead to more exact assessment by the repeated observation of the supervisor of the hiring company which does not necessarily come along with higher assessment. However, research in psychology found relevance of the phenomenon that the evaluation of something/somebody increases with repeated perceptions in many circumstances. This mere exposure effects (Zajonc, 1968) may also lead to higher motivation assessments by supervisors by the increased number of interactions with the temporary agency workers in projects with a larger duration of projects independent from the employees' immanent motivation. In sum, we suppose relevance of

Hypothesis 2: The project duration is positively related to the motivation assessment of temporary agency workers.

A further important characteristic is the *transition* of a temporary agency worker into regular employment with the hiring company. Within the framework of our investigation, the managers at the hiring companies were always asked to provide their feedback on the motivation of the temporary agency workers only at the end of a project and therefore after the transition decision. However, because the transition decision can be conveyed to the temporary agency worker at any time during the course of a project, a positive correlation between acceptance and the motivation of the temporary agency worker can be assumed. The causal effect can therefore go in either direction, depending on the timing of the transition decision.

Up to the point of notification of transition, motivation is driven by the desire for transition, and more motivated temporary agency workers are taken on with a greater degree of probability. The majority of temporary agency workers wish to be accepted by a hiring company (Eurociett, 2007). It can therefore be expected that they endeavour to perform well in this situation if it appears even vaguely possible that they might transition (Sende, Galais, Moser, & Hasenau, 2011; Sende & Vitera, 2013). According to the arguments of Achievement Motivation Theory (Atkinson, 1957) and Goal-Setting Theory (Locke & Latham, 2006), individuals can be motivated to act by their personally set targets. It is assumed here that a reverse U-shaped correlation exists between the difficulty of target attainment and motivation. The aim of acceptance is extremely difficult to characterise because the transition rates are generally low at around 20% (Crimmann et al., 2009). Furthermore, it is necessary to consider previous experience and further employment prospects. Over half of temporary agency workers were unemployed before their temporary employment (BfA, 2010). We know from discussion with the temporary agency company that many temporary agency workers have been dismissed during the observation period especially during the period of economic crisis. The ultimate goal of being accepted into permanent and regular employment can therefore have a positive influence on motivation.

Following the transition decision, it can be assumed that motivation is driven by the temporary agency worker's desire to justify acceptance. Accepting a temporary agency worker into an unlimited position of employment in a hiring company can be seen as feedback in relation to the performance of the temporary employee on the project. Investigations have also shown that positive feedback regarding performance can lead to increased working efforts (Mohnen & Pokorny, 2007). Reasons for this include, for example, the previously mentioned gift-exchange effect. It is therefore also possible to assume a positive relationship between a transition decision and the motivation of temporary agency workers. Next to higher workers' motivation, the motivation assessment by the supervisor of the hiring company may again be affected by the tendency of avoiding cognitive dissonance and a corresponding confirmation bias to justify transitional decisions (Nickerson, 1998; Wason, 1968). In the very specific construction of the temporary agency work showing very low transition rates into permanent employment, we expect the transition decision to be highly determined by the motivation shown by the temporary agency workers. Bearing this in mind, we arrive at

Hypothesis 3: There is a positive relationship between the transition decision and the motivation assessment of temporary agency workers.

In addition to the previously mentioned characteristics, *a change of hiring company* is supposed to be related to motivation for the temporary agency worker with follow-up projects, if they are involved in more than one project. It is possible that multiple projects in succession with the same hiring company may be perceived as one cumulatively long project. Then, the considerations for Hypothesis 2 are reinforced. In contrast, a change of hiring company means a new start with a further customer of the temporary work agency. If the hiring company does not extent the relationship by a new project, a change in hiring company can be perceived as a break in the psychological contract by the temporary agency worker. Rigotti (2009) describes substantial connections between the experienced breaking of psychological contracts and employment-relevant attitudes and behaviour patterns. Connections are also evident between breaks in psychological contracts, commitment and dedication, for example. Within the group of temporary agency workers who are leased multiple times by temporary work agencies, in the same way as with the argument regarding project duration it is also possible to assume higher motivation among those who remain with "their" customers as temporary agency workers than those temporary employees who undertake their next project with a new hiring company. Next to the higher level of motivation also the mere exposure effect described above can be reinforced, which additionally would lead to higher motivation assessments by the hiring company. These conclusions lead to

Hypothesis 4: There is a positive relationship between remaining with a hiring company on a follow-up project and the motivation assessment of the temporary agency worker.

There is evidence that *gender* bias in evaluations is still prominent and it can result in devaluation of the performance (Heilman, 2001; Johnson, Murphy, Zewdie, & Reichard, 2008). Subject performance evaluations can be biased with regard to sex because of stereotypes and conscious or unintentional discrimination of supervisors (Bertrand, Chugh, & Mullainathan, 2005). Female workers may be evaluated systematically lower than their male colleagues (De Paola, Gioia, & Scoppa, 2018; Mengel, Sauermann, & Zoelitz, 2017). However, this research is usually based on motivation assessment of usual employer-supervisor relationships and not of temporary agency workers. Still, motivation assessments may be higher for males for a given behaviour.

In contrast, the individual motivation might be higher for female temporary agency workers in a given context. Kanfer and Ackerman (2000) show that for some specific motivational traits (such as desire to learn or mastery) women show higher indications. Moreover, some empirical indications suggest that women tend to expect less in terms of certain characteristics from their employment relationship. Empirical work reveals higher levels of job satisfaction for females when controlling for important other individual and job based characteristics (Clark & Oswald, 1996 for the UK or Grund & Sliwka, 2007 for Germany). There is a close link between the constructs "job satisfaction" and "job motivation" (Siemund, 2013).

It is an empirical question, whether a) higher motivation assessment for males, e.g. due to stereotyping of (male) supervisors are more important in our context or, b) whether possible higher own motivation of females with other characteristics controlled for drive the empirical results. Since disadvantages for women due to gender stereotyping are most relevant in male gender-type positions (Heiman, 2012) and jobs of female temporary agency workers are more characterized by rather female gender-type positions such as office or administrative occupations, we expect gender biases in evaluations to be rather low. Our conjecture is therefore that the latter effect may outweigh the former, which leads us to

Hypothesis 5: Women in temporary agency work positions (with job characteristics controls) receive better motivation assessments than men.

There are possible additional characteristics that may be related to the motivation of temporary agency workers. With regard to *education*, for instance, it is not easy to predict an unambiguous connection with motivation. According to Nienhüser (2005), atypical forms of employment are often associated with "lower qualifications". However, in reality, individuals with varying levels of education are active as temporary agency workers. If qualifications could be interpreted as a sign of general willingness to work, then this would speak in favour of a positive relationship with

motivation. However, qualifications could also be linked to higher expectations in terms of employment situation. If these expectations are not satisfied through temporary agency work, then this could have a negative effect on motivation. Johnson and Johnson (2000) demonstrate a negative effect of perceived over-qualification on some areas of job satisfaction. Their results indicate that this effect is reflective of work-related deprivation connected with unfulfilled expectations. Temporary employees with a low level of education are subject to a significantly greater risk of unemployment and would therefore be more inclined to accept atypical employment. The empirical results may be dependent on the extent to which working conditions controls are applied. Based on representative employee data Clark and Oswald (1996) as well as Grund and Sliwka (2007) show a negative relation between education and job satisfaction, when controlling for remuneration. A similar effect can also be assumed with the influence of the education level on the motivation of temporary agency workers. We have refrained from the explicit formulation of a hypothesis in relation to the level of education. In our empirical analyses, we include education together with a set of other individual and job based characteristics as a control variable as described below.

Dataset and Variables

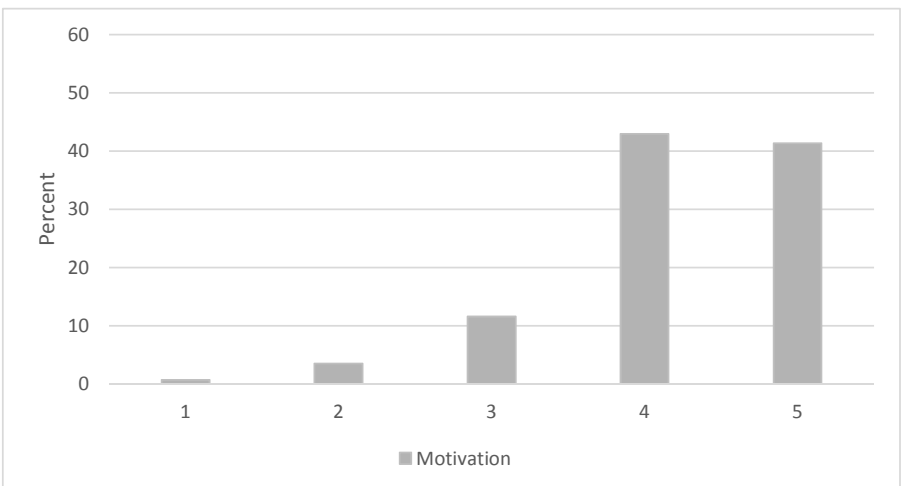
On the basis of a dataset from one of the largest temporary work agencies in Germany, it is possible to investigate the research questions specified. These data are documented personal data on the temporary agency workers, as well as project-related data regarding the respective personnel leasing, which have been made available to us for research purposes in a digital and anonymised form. Overall, personnel leasing in the period from 2007 to 2011 encompassed almost 25,000 projects. The motivation appraisals generated by the hiring companies regarding the temporary agency workers are available for a proportion of these projects. To obtain this information, the temporary work agency sends questionnaires to the personnel departments within the hiring companies at the end of the projects. The direct managers within the hiring companies evaluate, on a voluntary basis, the motivation, so that socially desirable answers can be reduced. In addition to motivation, the manager is also questioned on the temporary employee's reliability, integration capability, punctuality and friendliness. The appraisals are then returned to the temporary work agency. For a better understanding of our dataset it is important to clarify the temporary structure of the observed temporary work projects. At the beginning of a project at the hiring company which a temporary worker is sent to, all individual and job characteristics are fixed. That includes the project duration and the remuneration. The motivation assessments via survey take place at the end of the temporary projects.

For the purpose of this investigation, appraisals regarding the motivation of 2,984 temporary agency workers are available. These employees worked on a total of

3,423 projects between 2007 and 2011. An analysis of the differences from the overall sample shows that the observations within the sample tend to pertain to longer projects and frequently also follow-on projects. This is also intuitively obvious because the hiring companies would be unable to provide a valid assessment of motivation during very short projects and would not wish to do so. An appraisal is also more common before a pending transition to the hiring company, because an accurate appraisal of the temporary employee takes place before such a decision. The proportion of women in the sample with appraisals is higher than in the overall sample. As all temporary agency workers in our dataset are working for the first time in a temporary project arranged by the temporary work agency, selection effects are less likely. There is very little opportunity for the agencies to select the more motivated workers to projects with a longer duration in the first place.

The motivation assessments of the customer companies who employed the temporary agency workers are available as a *dependent variable*. This assessment is undertaken by the temporary worker's direct manager within the hiring company at the end of a project, and therefore constitutes an appraisal of the motivation of the temporary agency worker over an entire project. It takes the form of a five-point Likert scale ranging from 1 (poor motivation) to 5 (very high motivation). Figure 1 clearly shows that the temporary agency workers were retrospectively assessed as demonstrating a high level of motivation overall during the work on their projects. Over 40% were awarded the highest mark or classed as demonstrating good motivation, respectively.

Figure 1. Motivation assessment of temporary agency workers.



Note. Answers on a five-point Likert scale from 1 (= poor motivation) to 5 (= very high motivation).

In addition to the assessment of the motivation of a temporary agency worker, with almost half of the observations we also have access to appraisals of the reliability, integration capability, punctuality and friendliness of the temporary agency workers; likewise in the form of a five-point Likert scale from 1 (poor) to 5 (very good). These four factors can be interpreted as partial aspects of the temporary agency worker's willingness to work. On average, the temporary agency workers are also rated well with regard to these attributes. The results of a respective factor analysis suggest using these four additional items together with motivation as a construct (Cronbach's alpha of 0.9064, see also Table A in the Appendix). With consolidation of the five assessments we have generated the mean value of the standardised individual values. For the purpose of standardisation, the mean value of an attribute was taken from the individual assessments and divided by the respective standard deviation. We are calling this formulated construct *work morale assessment*. According to McFadzean and McFadzean (2005) work morale is to be understood as the degree to which an employee presents a positive or motivated psychological state. Within the framework of this investigation, we use this measure of work morale assessment alongside motivation to underline the robustness of a possible relation to individual or job-related characteristics. This robustness is particularly interesting, as the four additional assessment categories "reliability", "integration capability", "punctuality" and "friendliness" also symbolise visible behaviour that extends the assessments of motivation to some dimensions, but may also partly include motivation. Next to this, the objectivity of the assessment should increase by measuring more categories than just one item.

The following variables are available as *independent variables*: Firstly, we have information on the hourly wage (in EUR) paid to the temporary agency worker during project deployment by the agency. The information on the project duration is divided up into four categories (up to 2 months, over 2 and up to 6 months, over 6 and up to 12 months, over 12 months). On the basis of dummy variables for the year of project completion, we are able to apply controls for possible changes during the economic crisis (Müller, 2014; Spermann, 2012). Additionally, we use a dummy variable to specify whether the temporary agency worker is working on an initial or a follow-up project. Furthermore, using an additional dummy variable we determine whether a transition to permanent employment with a hiring company takes place at the end of a project. In addition to this, it is possible to control from the second instance of project deployment whether the temporary agency worker remains with the customer or changes to a different company. As socio-demographic attributes, the worker's gender, age (in years) and a binary variable for the existence of any children are also incorporated in the evaluation. The education level is logged with binary values for without training and completed university studies. The reference group applied is temporary agency workers who have completed vocational training. Finally, a control takes place for the activity performed during the project. Within the framework of robustness checks, we also consider

the size and sector of the hiring company in order to control for some company differences with regard to employment relationships and motives for using temporary agency work (Nienhüser, 2007; Promberger, 2012b).

Tables 1 and 2 provide an overview of the descriptive statistics of the variables. On average, the temporary agency workers receive a gross hourly rate of almost EUR 11.00. The project lengths vary to a considerable degree. Whilst almost one quarter of temporary agency workers are leased out for projects of no more than two months in length, almost one quarter are deployed on projects that run for over one year. One third of the projects took place either in 2007 or in 2008. The transfer quota into employment with the hiring company stands at 23% in our dataset. Over half of the temporary agency workers are female and only every ninth worker has children. This is probably linked to the rather low average age of the temporary agency workers of 33 years. Three quarters of the individuals have completed vocational training. A further 13% are university graduates. Of the 945 temporary agency workers who work on more than one project, every fifth worker remains with the hiring company to which they were leased for the previous project. The various activities have been divided up into 8 main categories, based on Matthes, Burkert and Biersack (2008). The most frequent forms include office/administrative occupations, metal producers/processors and electrical vocations.

Table 1. Descriptive Statistics for the Dependent Variables

	Projects	Persons	
	3,423	2,984	
Dependent variables			
Motivation assessment (n=3,423)	n	M	
(1) poor	23	0.007	
(2) adequate	120	0.035	
(3) satisfactory	395	0.115	
(4) high	1,470	0.430	
(5) very high	1,415	0.413	
	n	M	SD
Work morale assessment*	1,576	0	1
Motivation	1,576	4.114	0.819
Reliability	1,576	4.151	0.806
Integration capability	1,576	4.127	0.765
Punctuality	1,576	4.264	0.757
Friendliness	1,576	4.287	0.649

Note. *M* = Mean Vaule, *SD* = Standard Deviation

The work morale assessment was established as a standard mean value from the assessments of motivation, reliability, integration capability, punctuality and friendliness. Adding the four further appraisal items reduces the dataset to 1,576 projects

with 1,426 temporary agency workers. The descriptive statistics of the other variables change only insignificantly for the part sample of individuals with observations regarding work morale.

Table 2. Descriptive Statistics for the Independent Variables

Independent variables			
Hourly rate (EUR)		M	SD
		10.64	3.11
Project length	n	M	
up to 2 months (*reference*)	801	0.234	
over 2 up to 6 months	1,013	0.296	
over 6 up to 12 months	834	0.244	
over 12 months	775	0.226	
Transition (dummy)	n	M	
	774	0.226	
First project (dummy)	n	M	
	2,478	0.723	
Remain with the customer (dummy)	n	M	
	182	0.193 (of n=945 with follow-up project)	
Age (in years)		M	SD
		33.17	9.415
Female (dummy)	n	M	
	1,881	0.549	
Education & training	n	M	
No qualification	367	0.107	
Vocational qualification (*reference*)	2,605	0.761	
University graduate	451	0.132	
Children (dummy)	n	M	
	380	0.111	
Control Variables			
Activity	Eight dummies: construction/mining/chemical vocations, office/administrative occupations, electrical vocations, IT vocations, storage/transport		
Year	Five dummies: 2007, 2008, 2009, 2010, 2011		

Note. *M* = Mean Vaule, *SD* = Standard Deviation

Results

Table 3 shows the results of ordered probit regressions of the motivation assessment of temporary agency workers in Models (1) and (2). Model (1) only differs from Model (2) due to the consideration of remuneration. A significant correlation exists between the hourly rate and the motivation appraisals of the temporary agency workers. The higher the hourly rate in the projects is, the better the appraisal of the temporary agency worker's motivation by the direct manager. This concurs with Hypothesis 1 and hints for possible relevance of our considerations regarding reciprocal behaviour above.

A significant relationship also exists between the project duration and the motivation assessment. As anticipated (Hypothesis 2), temporary agency workers who work on projects lasting for over twelve months receive more positive evaluations with regard to their motivation than those involved in very short projects. Further appraisals with other reference categories that are not listed here also indicate differences to projects of medium length. All of the temporary agency workers in our dataset have just start to work in the temporary work agency. Assignment by the agency of the good workers to long projects and of the not so motivated workers to shorter projects is not likely, because the agency does not have any information about the motivation or the performance of the workers at this juncture. We cannot distinguish between different possible explanations for the positive relation between project duration and motivation assessments. A greater relevance of a psychological contract between the hiring company and the temporary agency worker might be accompanied by a mere exposure effect as argued above.

Irrespective of whether the motivation of temporary agency workers is decisive for their transition to the hiring company, or whether motivation as feedback serves as an incentive and motivates the temporary agency worker to justify this feedback, in the third hypothesis we anticipated a positive connection between transition and motivation assessment, which is also supported by the results. For temporary agency workers who get transitioned into permanent employment higher assessments regarding their motivation can be found in the data.

Table 3. Individual and Job-Related Characteristics and Motivation Assessment (Ordered Probit Models) or Work Morale Assessment (OLS)

	(1) Motivation assessment	(2) Motivation assessment	(3) Work morale assessment	(4) Work morale assessment
Hourly wage rate	0.021***		0.016*	
	(0.008)		(0.009)	
Project length (reference: up to 2 months)				
over 2 up to 6 months	0.056	0.072	0.071	0.085
	(0.055)	(0.055)	(0.075)	(0.074)
over 6 up to 12 months	0.087	0.109*	0.318***	0.336***
	(0.060)	(0.060)	(0.074)	(0.073)
over 12 months	0.249***	0.277***	0.315***	0.337***
	(0.060)	(0.060)	(0.075)	(0.074)
Transition (dummy, 1 = yes)	0.746***	0.753***	0.514***	0.520***
	(0.049)	(0.049)	(0.051)	(0.051)
First project (dummy, 1 = yes)	-0.018	-0.013	-0.001	0.004
	(0.046)	(0.046)	(0.062)	(0.062)
Age	0.003	0.004**	0.006**	0.006**
	(0.002)	(0.002)	(0.003)	(0.002)
Female (dummy, 1 = yes)	0.304***	0.295***	0.111	0.101
	(0.050)	(0.050)	(0.070)	(0.069)
Education & training				
(Reference: vocational qualification)				
No qualification	0.053	0.055	-0.050	-0.049

	(1) Motivation assessment	(2) Motivation assessment	(3) Work morale assessment	(4) Work morale assessment
	(0.071)	(0.071)	(0.075)	(0.075)
University graduate	0.183***	0.231***	0.170*	0.214**
	(0.070)	(0.067)	(0.092)	(0.087)
Children (dummy, 1 = yes)	-0.169***	-0.170***	-0.113	-0.115
	(0.063)	(0.063)	(0.073)	(0.072)
Activity (8 dummies)	Yes	Yes	Yes	Yes
Year (5 dummies)	Yes	Yes	Yes	Yes
Constant			-0.824***	-0.712***
			(0.157)	(0.143)
Number of observations	3423	3423	1576	1576
Pseudo R^2	0.065	0.064	0.173	0.172
LR chi2	546.928	531.924		
Prob > chi2	0.000	0.000	0.000	0.000
cut1	-1.661***	-1.809***		
	(0.154)	(0.144)		
cut2	-0.882***	-1.030***		
	(0.139)	(0.129)		
cut3	-0.104	-0.252**		
	(0.136)	(0.126)		
cut4	1.239***	1.090***		
	(0.138)	(0.127)		

Note. Robust standard errors in parentheses. *, **, *** indicate significance at 10%, 5% and 1% level

Table 4. Individual and Job-Related Characteristics and Motivation Assessment (Ordered Probit Models) or Work Morale Assessment (OLS) in Follow-Up Projects

	(1) Motivation assessment	(2) Work morale assessment
Hourly rate	0.019	-0.005
Project length (reference: up to 2 months)	(0.017)	(0.022)
over 2 up to 6 months	-0.139	-0.165
	(0.095)	(0.133)
over 6 up to 12 months	0.048	0.247*
	(0.115)	(0.138)
over 12 months	0.295**	0.330**
	(0.134)	(0.146)
Transition (dummy, 1 = yes)	0.691***	0.223
	(0.114)	(0.138)
Remain with customer (dummy, 1 = yes)	0.327***	0.302**
	(0.099)	(0.118)
Age	0.010**	0.010**
	(0.004)	(0.005)
Female (dummy, 1 = yes)	0.339***	0.352*
Education & training (Reference: Vocational training)	(0.114)	(0.184)
No qualification	0.069	-0.047
	(0.140)	(0.163)
University graduate	0.219	0.376*
	(0.136)	(0.205)
Children (dummy, 1 = yes)	-0.268**	-0.282**
	(0.114)	(0.141)
Activity (8 dummies)	Yes	Yes
Year (5 dummies)	Yes	Yes
Constant		-0.591**
		(0.275)
Number of observations	945	404
Pseudo R^2	0.078	0.217
LR chi2	192.404	
Prob > chi2	0.000	
cut1	-1.641***	
	(0.285)	

	(1) Motivation assessment	(2) Work morale assessment
cut2	-0.944***	
	(0.259)	
cut3	-0.193	
	(0.252)	
cut4	1.316***	
	(0.257)	

Note. Robust standard errors in parentheses. *, **, *** indicate significance at 10%, 5% and 1% level

It is beneficial to perform a separate evaluation of temporary agency work projects which run beyond the initial project deployment and therefore could be referred to as follow-on projects (Table 4). The relationship between motivation or work morale appraisals and remaining with the customer is particularly interesting here. It is apparent that temporary agency workers who perform follow-on projects with the same hiring company are perceived as exhibiting a significantly higher degree of motivation. This connection exists in addition to a positive relationship between long projects and motivation. The results once again remain robust with the analysis of work morale. Here too, our theoretical expectations from the Hypothesis 4 are supported. The relationships ascertained here also remain robust with a control for the company size of the hiring company (not reported, available upon request). It seems that remaining with the given hiring company can strengthen or intensify the psychological contract between temporary agency worker and hiring company.

Whilst the majority of male temporary agency workers receive a good appraisal of their motivation, most of their female counterparts were awarded the top mark (see Figure 2 in the Appendix). There are also significant gender differences in motivation in our multivariate analysis (Table 3, Model (1)). An initial consideration could be that women tend to have lower salary expectations. However, the observed difference between the genders is also similarly high if no remuneration control is applied (Model (2)). Lower expectations could however naturally be linked to other factors, such as general employment prospects or working conditions, which we are unable to control for. The relation of the female dummy and work morale assessments is also positive, but not significant. Separate estimations on single items (not reported, available upon request) rather show gender differences for reliability assessments.

In order to investigate the extent to which gender-specific differences exist for the interrelations shown, we have additionally performed separate appraisals for the motivation assessment of women and men (Table 5). Whilst the project length plays almost no role at all for female temporary agency workers, there is a significant positive correlation between the project length and motivation for their male counterparts. There are also relevant gender differences. A positive (highly) signifi-

cant connection between the hourly rate and the motivation is only apparent here among the female temporary agency workers. However, within our results, the effects of a stereotypical assessment are less effective. Rather, a higher motivation of women can be perceived.

The results with regard to our controls include that university graduate temporary agency workers demonstrate a higher level of motivation than those persons who have completed vocational training (Table 3, Models (1) and (2)). However, the separate evaluation of women and men in Table 5 shows that this interrelation primarily applies to female temporary agency workers. A further result, shown in Table 3, is that temporary agency workers with children receive slightly poorer motivation appraisals. This result is relevant among women in particular (Table 5).

The assessments in Tables 3 and 5 contain a number of observations of temporary agency workers who are repeatedly leased to a project by the temporary work agency. A dummy variable is used in the tables to control for whether this is the first project that the temporary agency worker has worked on. The relations of this variable to motivation assessment or work morale assessment are not significant. Because individuals with multiple projects are contained in the dataset multiple times, those observations are, strictly speaking, not independent of each other. As a robustness test, Table B in the Appendix presents the results of Table 3 for the observations whereby the individuals complete their first project. The results do not differ on a qualitative basis.

The results of the ordered probit analysis (Models (1) and (2)) must be considered with a certain degree of caution, because the distribution of the dependent variables is highly skewed. In fact, a corresponding likelihood ratio test shows differences between the coefficients of the various response categories, so that the proportionality assumption is not necessarily guaranteed. As such, we have performed multiple robustness checks. Firstly, corresponding binary probit models performed on the basis of a transformed dependent variable with just two forms (high versus low motivation assessment) lead to similar results, see Appendix, Table C. Secondly, Models (3) and (4) per Tables 3 and 5 contain the results of OLS regressions with the dependent variable “work morale assessment” described in section 4. The key results remain intact. One exception is that of the results pertaining to qualifications, which provide the same indications but exhibit a lower degree of significance with the assessments of work morale. However, this appears to be driven by the lower case numbers of these assessments, as suggested by assessments of motivation on the basis of this smaller number of observations (see Table D in the Appendix, Models (3) and (4)).

Table 5. Individual and Job-Related Characteristics and Motivation Assessment (Ordered Probit Models) or Work Morale Assessment (OLS) of Women and Men

	(1) Motivation assessment Women	(2) Motivation assessment Men	(3) Work morale assessment Women	(4) Work morale assessment Men
Hourly rate	0.034***	0.007	0.017	0.018
	(0.011)	(0.011)	(0.013)	(0.012)
Project length (reference: up to 2 months)				
over 2 up to 6 months	-0.043	0.186**	-0.219	0.205**
	(0.078)	(0.081)	(0.135)	(0.089)
over 6 up to 12 months	-0.051	0.267***	0.055	0.440***
	(0.083)	(0.090)	(0.131)	(0.091)
over 12 months	0.132	0.413***	0.137	0.387***
	(0.084)	(0.090)	(0.129)	(0.095)
Transition (dummy, 1 = yes)	0.692***	0.819***	0.376***	0.563***
	(0.066)	(0.078)	(0.080)	(0.069)
First project (dummy, 1 = yes)	-0.017	-0.003	-0.001	0.014
	(0.060)	(0.073)	(0.099)	(0.078)
Age	0.004	0.003	-0.003	0.009***
	(0.003)	(0.003)	(0.004)	(0.003)
Education & training (Reference: Vocational training)				
No qualification	-0.041	0.242**	-0.029	0.006
	(0.098)	(0.099)	(0.114)	(0.097)
University graduate	0.215**	0.165	0.298***	-0.117
	(0.086)	(0.124)	(0.105)	(0.162)

	(1) Motivation assessment Women	(2) Motivation assessment Men	(3) Work morale assessment Women	(4) Work morale assessment Men
Children (dummy, 1 = yes)	-0.227**	-0.098	-0.015	-0.123
	(0.098)	(0.085)	(0.136)	(0.085)
Activity (8 dummies)	Yes	Yes	Yes	Yes
Year (5 dummies)	Yes	Yes	Yes	Yes
Constant			-0.115	-1.079***
			(0.250)	(0.198)
Number of observations	1881	1542	531	1045
Pseudo R^2	0.050	0.059	0.212	0.141
LR chi2	207.274	229.787		
Prob > chi2	0.000	0.000	0.000	0.000
cut1	-1.615***	-1.934***		
	(0.217)	(0.218)		
cut2	-0.929***	-1.056***		
	(0.195)	(0.200)		
cut3	-0.201	-0.230		
	(0.191)	(0.197)		
cut4	1.044***	1.235***		
	(0.192)	(0.198)		

Note. Robust standard errors in parentheses. *, **, *** indicate significance at 10%, 5% and 1% level

As with any empirical study, our investigation is also subject to a number of limitations. The assessments of the temporary workers are acquired from the hiring company on behalf of the temporary work agency. The appraisal should be performed by the direct manager within the hiring company. These types of subjective appraisal always bring with them a risk of distortion. For example, a tendency towards leniency and similar appraisals for different employees has been observed in general (Bol, 2011). However, in our opinion this is outweighed by their advantages in comparison to self-assessments, which are frequently found to contain overestimations of personal performance (Meyer, 1975). Besides, the appraisal by the hiring company provides important feedback for the temporary work agencies. The evaluation is delivered retrospectively. This implies that no changes in motivation or motivation assessment during the project can be presented and investigated. Based on our data, we are only able to trace the development of the motivation of temporary agency workers over multiple projects to some degree. However, we have been able to show that a change in hiring company is negatively related to assessments compared to those with follow-up projects at the same firm. Likewise, we have no information on the employment biography of the employee prior to starting work with the temporary work agency. Ultimately, no comparison of the motivation assessments of temporary agency workers with those of regular employees of the respective hiring company is possible within the framework of our investigation. We are hardly able to derive an interrelation between the hiring company's operational usage strategy of temporary agency work (Holst, 2009, 2012) and the motivation assessments of the temporary agency workers. Our dataset merely contains the project length as a possible indicator for the operational usage strategy, whereby we assume – with reference to Holst (2009) – that a short project duration of up to two months tends to relate to ad hoc usage and that long-term projects of more than one year indicate the strategic use of temporary work. Because longer projects tend to be associated with higher motivation assessment than shorter projects in our analyses, strategic use would lead to higher motivation amongst the temporary agency workers. The higher motivation of temporary agency workers could in turn motivate the hiring company to strategically use temporary work, which throws up problems in terms of causality.

Finally, for some of our analysed variables it is not explicitly possible to distinguish between the effect of the variable on the assessment and the motivation or work morale itself. Although this limitation cannot be finally cleared, the assessment is important for all three parties involved in temporary agency work: It is the temporary agency workers' visible behaviour that the hiring companies are benefitting from. And it is the assessment at the end of the temporary work projects that impacts the reputation of the temporary work agencies and the temporary agency workers' careers.

Conclusion

In sum, it is possible to assert that a precise evaluation of the interrelation between individual or job-related characteristics and the motivation assessment of temporary agency workers is thoroughly beneficial. Earlier studies have usually analysed comparisons with employees in alternative employment structures, such as regular employment relationships. However, the temporary agency worker group is not homogeneous in itself. Socio-demographic variables such as gender as well as project-related factors such as project length exhibit a connection with the motivation assessment of temporary agency workers. Better motivation appraisals are awarded to women, in particular in combination with higher hourly rates, temporary agency workers who are accepted into the hiring company, and those working on longer projects. Our results therefore concur with the observations of Lapalme et al. (2011), whereby temporary agency workers in the Canadian financial services sector demonstrated a connection between perceived breaks in implied contracts and the commitment of the temporary agency workers. Even if we do not investigate compliance with implied contracts directly, hiring companies clearly have room for manoeuvre in terms of the present and future working conditions of temporary agency workers. We record these, for example, as remuneration, project length and transition to the company. In this regard, we observe a higher level of motivation assessment in those cases where the hiring companies configure their room for manoeuvre on the basis of the presumed preferences of the temporary agency workers.

The majority of the theoretical literature on temporary agency work pertains to the decisions of the hiring companies. As such, Nienhüser (2007), for example, highlights conditions under which atypical employment relationships, such as temporary agency work, are functionally utilised. In particular with low complexity tasks, he identifies a short-term externally oriented employment strategy with a high degree of temporary agency worker usage due to flexibility advantages. We are only able to derive very little information regarding the employment strategies of the respective hiring companies on the basis of our employee dataset. However, differences in the configuration of the temporary agency work projects (e.g. with regard to project duration, repeated leasing and transition to regular employment) do indicate that employment strategies also vary within the group of companies that utilise temporary work. A fascinating question for future work may be to examine the extent to which hiring companies consider the actually possible effects of the configuration of temporary agency work conditions on the motivation of the temporary agency workers or whether such effects are instead considered to be ancillary products, which are given no consideration due to the balance of power between the hiring company and the temporary agency workers.

Important findings can be derived from the results, both for the perspective of the temporary work agencies and for the perspective of hiring companies. From the latter perspective, trade-offs are apparent: Hiring companies utilise temporary agency

work in part to react with flexibility (short-term) to human resource requirements and to save personnel costs (Alewell, Bähring, Canis, Hauff, & Thommes, 2007; Nienhüser, 2005). As such, a lower hourly rate and short project lengths tend to be favoured initially. Accordingly, on a precautionary note it is necessary to remain sensitive to potentially conflicting goals with regard to the motivation of temporary agency workers. Employees who have opted for temporary agency work as a form of employment may appear to approach their project roles with a good level of motivation. However, hiring companies should consider that this is particularly true if the remuneration is appropriate and the position has prospects. It is apparent that long-term cooperation – also over multiple projects with the same temporary agency workers – may be highly beneficial.

Our results largely reflect our expectations or hypotheses derived from theoretical considerations. As such, the significance of the arguments drawn upon for our study from various fundamental theories is supported or at the least not refuted. We consider the expectations or aspirations level of employees to be significant, whereby this aspect in turn exhibits gender-specific differences. Future work should more closely analyse the significance of expectations pertaining to the employment situation with particular consideration of gender.

For future empirical studies it would be desirable to acquire data that could highlight the progression of motivation during temporary work. Additionally, an investigation into the comparison of motivation in relation to regular employment would be expedient, in order to derive more accurate implications for the meaningful selection of employment forms within companies. In doing so, interactions between employees in unlimited employment relationships and temporary agency workers, as well as corresponding interdependencies in terms of their willingness to work, should also be examined. A comparison between the employment strategy of the company and the motivation of the temporary agency workers would deliver important empirical findings for assessing and further developing existing theoretical constructs.

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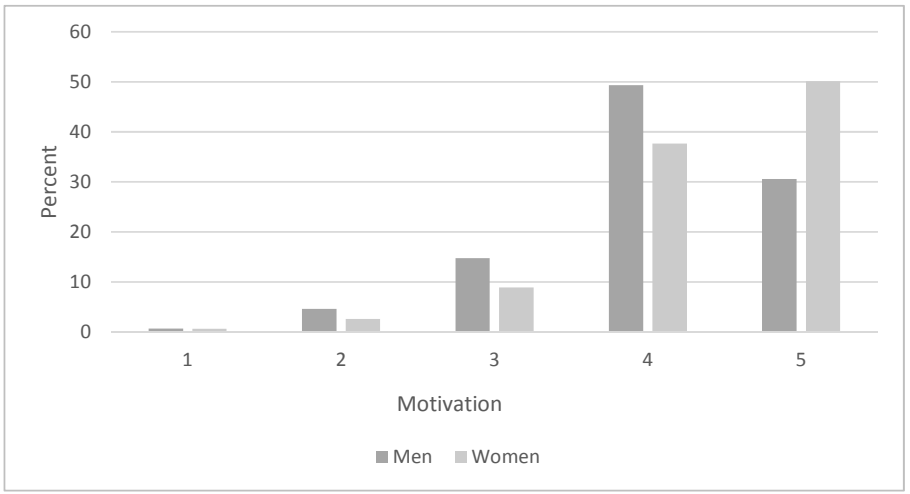
Appendix

Figure 2. Distribution of motivation assessment of women and men.



Note. 5 = very high motivation, 1 = poor motivation

Table A. Results of the Factor Analysis on the Construct Work Morale Assessment

	Motivation	Reliability	Integration capability	Punctuality	Friendliness
Motivation	1.000				
Reliability	0.746	1.000			
Integration capability	0.710	0.660	1.000		
Punctuality	0.664	0.685	0.577	1.000	
Friendliness	0.636	0.620	0.696	0.628	1.000

Note. Correlation matrix

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	3.651	3.194	0.730	0.730
Factor2	0.457	0.068	0.091	0.822
Factor3	0.389	0.126	0.078	0.899
Factor4	0.264	0.024	0.053	0.952
Factor5	0.239		0.048	1.000

Note. Factor – eigenvalues

Variable	Factor1	Uniqueness
Motivation	0.882	0.222
Reliability	0.871	0.242
Integration capability	0.853	0.272
Punctuality	0.830	0.312
Friendliness	0.836	0.301

Note. Factor loading matrix

Table B. Individual and Job-Related Characteristics and Motivation Assessment (Ordered Probit Models) or Work Morale Assessment (OLS) on the First Project

	(1) Motivation assessment	(2) Motivation assessment	(3) Work morale assessment	(4) Work morale assessment
Hourly wage rate	0.019**		0.020**	
Project length (reference: up to 2 months)	(0.009)		(0.010)	
over 2 up to 6 months	0.151**	0.165**	0.199**	0.218**
	(0.072)	(0.072)	(0.096)	(0.096)
over 6 up to 12 months	0.122	0.143*	0.387***	0.412***
	(0.075)	(0.074)	(0.095)	(0.094)
over 12 months	0.289***	0.316***	0.388***	0.420***
	(0.073)	(0.072)	(0.094)	(0.093)
Transition (dummy, 1 = yes)	0.757***	0.768***	0.536***	0.547***
	(0.055)	(0.055)	(0.055)	(0.055)
Age	0.000	0.001	0.003	0.004
	(0.003)	(0.003)	(0.003)	(0.003)
Female (dummy, 1 = yes)	0.286***	0.275***	0.066	0.051
Education & training (Reference: Vocational training)	(0.056)	(0.056)	(0.074)	(0.074)
No qualification	0.051	0.053	-0.070	-0.060
	(0.083)	(0.083)	(0.083)	(0.083)
University graduate	0.170**	0.220***	0.090	0.152
	(0.082)	(0.078)	(0.101)	(0.095)
Children (dummy, 1 = yes)	-0.116	-0.118	-0.027	-0.032
	(0.075)	(0.075)	(0.083)	(0.082)
Activity (8 dummies)	Yes	Yes	Yes	Yes
Year (5 dummies)	Yes	Yes	Yes	Yes
Constant			-0.950*** (0.195)	-0.809*** (0.178)

	(1) Motivation assessment	(2) Motivation assessment	(3) Work morale assessment	(4) Work morale assessment
Number of observations	2478	2478	1172	1172
Pseudo R^2	0.067	0.066	0.178	0.175
LR chi2	401.887	394.191		
Prob > chi2	0.000	0.000	0.000	0.000
cut1	-1.651***	-1.790***		
	(0.182)	(0.171)		
cut2	-0.829***	-0.968***		
	(0.164)	(0.152)		
cut3	-0.032	-0.171		
	(0.161)	(0.149)		
cut4	1.265***	1.125***		
	(0.163)	(0.150)		

Note. Standard errors in parentheses. *, **, *** indicate significance at 10%, 5% and 1% level

Table C. Individual and Job-Related Characteristics and Motivation Assessment (Binary Probit Models) – Transformation of Motivation Assessment into a Binary Variable (1 = very high motivation)

	(1) Motivation assessment	(2) Motivation assessment
Hourly rate	0.033***	
	(0.009)	
Project length (reference: up to 2 months)	0.071	0.098
over 2 up to 6 months		
	(0.063)	(0.063)
over 6 up to 12 months	0.101	0.138**
	(0.070)	(0.069)
over 12 months	0.184**	0.229***
	(0.072)	(0.071)
Transition (dummy, 1 = yes)	0.654***	0.665***
	(0.056)	(0.056)
First project (dummy, 1 = yes)	0.065	0.074
	(0.054)	(0.054)
Age	0.002	0.004
	(0.003)	(0.003)
Female (dummy, 1 = yes)	0.347***	0.333***

	(1) Motivation assessment	(2) Motivation assessment
Education & training	(0.056)	(0.055)
(Reference: Vocational training)		
No qualification	-0.079	-0.067
	(0.092)	(0.092)
University graduate	0.240***	0.314***
	(0.073)	(0.070)
Children (dummy, 1 = yes)	-0.275***	-0.272***
	(0.080)	(0.079)
Activity (8 dummies)	Yes	Yes
Year (5 dummies)	Yes	Yes
Constant	-1.446***	-1.206***
	(0.172)	(0.161)
Number of observations	3423	3423
Pseudo R^2	0.099	0.096
LR chi2	425.990	410.464
Prob > chi2	0.000	0.000

Note. Standard errors in parentheses. *, **, *** indicate significance at 10%, 5% and 1% level

Table D. Individual and Job-Related Characteristics and Motivation Assessment (Ordered Probit Models) – All Observations (Models (1) and (2)) and Part Sample of the Observations for which Work Morale Assessment Information is also Available

	(1) Motivation assessment	(2) Motivation assessment	(3) Motivation assessment	(4) Motivation assessment
Hourly rate	0.021***		0.025**	
Project length (reference: up to 2 months)	(0.008)		(0.013)	
over 2 up to 6 months	0.056	0.072	0.067	0.088
	(0.055)	(0.055)	(0.085)	(0.084)
over 6 up to 12 months	0.087	0.109*	0.277***	0.303***
	(0.060)	(0.060)	(0.091)	(0.090)
over 12 months	0.249***	0.277***	0.312***	0.346***
	(0.060)	(0.060)	(0.090)	(0.089)
Transition (dummy, 1 = yes)	0.746***	0.753***	0.625***	0.632***
	(0.049)	(0.049)	(0.076)	(0.076)

	(1) Motivation assessment	(2) Motivation assessment	(3) Motivation assessment	(4) Motivation assessment
First project (dummy, 1 = yes)	-0.018	-0.013	-0.030	-0.023
	(0.046)	(0.046)	(0.073)	(0.073)
Age	0.003	0.004**	0.004	0.005*
	(0.002)	(0.002)	(0.003)	(0.003)
Female (dummy, 1 = yes)	0.304***	0.295***	0.082	0.065
Education & training (Reference: Vocational training)	(0.050)	(0.050)	(0.085)	(0.084)
No qualification	0.053	0.055	-0.018	-0.018
	(0.071)	(0.071)	(0.095)	(0.095)
University graduate	0.183***	0.231***	0.170	0.240*
	(0.070)	(0.067)	(0.135)	(0.128)
Children (dummy, 1 = yes)	-0.169***	-0.170***	-0.125	-0.130
	(0.063)	(0.063)	(0.081)	(0.081)
Activity (8 dummies)	Yes	Yes	Yes	Yes
Year (5 dummies)	Yes	Yes	Yes	Yes
Number of observations	3423	3423	1576	1576
Pseudo R^2	0.065	0.064	0.073	0.072
LR chi2	546.928	531.924	264.384	259.644
Prob > chi2	0.000	0.000	0.000	0.000
cut1	-1.661***	-1.809***	-1.755***	-1.933***
	(0.154)	(0.144)	(0.212)	(0.193)
cut2	-0.882***	-1.030***	-0.936***	-1.112***
	(0.139)	(0.129)	(0.194)	(0.168)
cut3	-0.104	-0.252**	-0.154	-0.330**
	(0.136)	(0.126)	(0.190)	(0.163)
cut4	1.239***	1.090***	1.360***	1.181***
	(0.138)	(0.127)	(0.193)	(0.165)

Note. Standard errors in parentheses. *, **, *** indicate significance at 10%, 5% and 1% level