

Original Research Article

The Impact of Temporary Staffing Agency Employment (TSAE) on Employee Performance in China

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Authors' contributions:

Doris Agyeiwaa, Eric Ashalley and Isaac Quaye designed the study and wrote the introduction to the study. Augustine Dampitey Owusu, Lucille Aba Abruquah and Doris Agyeiwaa wrote the literature review. Amos Oppong, Doris Agyeiwaa and Isaac Quaye designed and administered the questionnaires. Amos Oppong, Augustine Dampitey Owusu and Eric Ashalley designed the research methodology, managed the data entry and data analysis. Amos Oppong, Lucille Aba Abruquah and Doris Agyeiwaa wrote the conclusions/recommendations. All authors read and approved the final manuscript.

ABSTRACT

The increasing use of temporary workers (dispatched labour) has become contentious in China since the implementation of China's Labour Contract Law in 2008. Supporters of the Temporary Staffing Agency Employment (TSAE) industry in China, consider it as a cost-cutting, human resource-management tool for solving unemployment while its critics consider the industry as a means for companies to make workers more "flexible" with less protection. This study uses individual level analysis to assess the impact of the human factors (commitment to firm and agency, job security, job satisfaction and job stress) on the overall performance or output of dispatched or temporary workers in Temporary Staffing Agencies Employment (TSAE) in China. The study finds a statistically significant positive relation between job security and performance, commitment to Firm and performance as well as commitment to agency and performance. Furthermore, the study finds a negative relationship between job stress and performance as well as between job satisfaction and performance. Moreover, the study also finds that correlations among the independent variables highly impact on employee performance. The study also finds that the Chinese culture has an overarching influence on the impact of the human factors on the overall employee performance. The paper acknowledges the complexity underlying the concept of TSAE in China and recommends further studies to broaden knowledge and understanding, especially the interactions between culture, the human factors and performance.

Keywords: *Temporary Employment, Performance, Job security, Job Stress, Job Satisfaction, Commitment, Culture, China*

INTRODUCTION

1.1 Background

Today's workforce has changed swiftly from a generation ago[1], [2]. Most workers do not wish to have a long-term working agreement with a single organization, such that they be tagged as permanent employees of the firm[3]. Employers' recent demand for more flexibility and innovation has contributed a great deal to the insurgence of temporary employment [3][4][5]. The use of such workers(temporary workers) in the organization goes a long way to save the employer of monies that would have been expended on benefits and compensation, all to the advantage of the permanent employee[6]. Contingent Workforce management is now an integral part of organizations' corporate and business strategies[7]. Firms today consider as essential, putting in place a comprehensive strategic approach to managing its temporary workforce in a way that it mitigates the risk of employing them and rather ensure that much value is created to the firm's advantage as a result of their use[6].

The 2014 Economic report by International Confederation of Private Employment Services (Ciett) reports on agency work industry around the globe in 2012. The report indicates a total of 36 million workers in agency work worldwide with 137,300 agencies, 203,500 branches and employs 624,500 internal staff (representing 11.5 million jobs in full-time equivalents)[2]. Undoubtedly, this new form of work force continues to gain tremendous popularity within organizations and businesses[3][8][1], [2], [9]. Globally, this event appears to be one of the most significant occurrences in Labour markets recently and contributes substantially to the Gross Domestic Product (GDP) of benefactor countries[1], [2]. For instance, the global annual sales revenue in 2012 was reported at €299.3 billion with the USA, Japan and the European Union having 28.9%, 16.6% and 36.5% respectively of the share of global market[2]. The entire Asia/Pacific region employs 10% of the total global agency work force[2].

According to the Ciett 2014 report, Staffing Industry Analysts estimate the number of agency workers in China at 27 million with an average penetration rate of 2%, even though there is a general lack of reliable and comparable data on China[2][10][5]. The People's Republic of China is the World's largest economy[11] with a total population of 1.357 billion, a GDP of 17.4 trillion USD[11] and GDP per capita of 6,807 USD[12][10]. Moreover, having an averaged GDP growth of 10% over the last three decades, with over 500 million people having moved out of poverty[12][13], an estimated temporary agency work force of 27 million[2] and being the world's largest exporter, manufacturer and a substantial importer of raw materials[13][6], China's impressive growth is phenomenal and has attracted the attention on many in academia and policy[13][6].

The amendment and implementation of the China Labour Contract Law in 2008, has in part contributed to the surge in the already growing numbers in temporary employment and employment agencies in China[14]. Whiles the new Law seeks to protect employees, by making it mandatory on employers to pay workers insurance, social security and overtime settlements, it has equally made employment contracts less flexible and firing permanent employees very difficult[14]. By stipulating that contracting agents be responsible for arranging such temporary and backup jobs, China's Labour Contract law 2008 thus contributed to the increase in the number of contracting agencies providing a more flexible employment arrangement through temporary or 'dispatch workers'[14]. The increasing use of dispatched labour has become contentious in China since the implementation of China's Labour Contract Law in 2008[5]. Whiles supporters of the Temporary Staffing Agency Employment (TSAE) industry in China, consider it as a cost-cutting, human resource-management tool for solving unemployment, its critics consider the industry as a means for companies to make workers more "flexible" with less protection[6].

Similar to Temporary Employment Agencies (TEAs) in the West, Temporary Staffing Agencies(TSAs) in China 'dispatches' its employees to work for the corporate customer, and the corporate customer pays the agency a fee in exchange for the labor of the employees and the staffing service it receives[6][15], [16]. The industry rests on a triangular employment relationship amongst a TSA, employees (dispatch workers), and the corporate customer(user firm)[6][15], [16].

However, unlike the practice of TEAs in the West, little is known about the trend and its dynamics in Asia and China in particular[5][6]. Specifically, little is known about the interactions of the human factors (Commitment, Satisfaction, Stress, and Job security) and their impact on the performance of temporary or 'dispatch' workers in China[6]. The purpose of this study therefore is to assess the impact of the human

factors (commitment to firm and agency, job security, job satisfaction and job stress) on the overall performance or output of dispatch workers in Temporary Staffing Agencies Employment (TSAE) in China. This study does not only make invaluable contribution to knowledge and understanding of the general global concept and the trend of Temporary Staffing Agency Work(TSAW) but also the dynamics of the trend in the emerging global super power; China. The paper's contribution to policy direction, academia and future studies cannot therefore be overemphasized.

1.2 Literature Review

1.2.1 Definition and Concept

In China, "Labour dispatch," "talent dispatch," and "human resources outsourcing" are some of the names used to describe the Temporary Staffing Agency Industry or the Temporary Agency Work(TAW)[5], [10]. However, the general concept of the triangular relationship of agency work is still the same[5], [10]. According to a report, the first official use of the term 'Labour dispatch was in a Peoples Republic of China (PRC) White Paper in 2004[10].

For the purpose of this study, we adopt a definition and concept as used in a study on Private Employment Agencies and Labour Dispatch in China[5]. The study defines Temporary Staffing Agency Employment (TSAE) (also known as 'Labour Dispatch' in China) as:

"employment by a private employment agency under a Labour contract of limited or unspecified duration with no guarantee of continuation, whereby the worker is hired out to perform his or her work (and under the supervision of) the user enterprise"[5].

Several of the draft regulations on Labour Dispatch released by China's Ministry of Human Resource and Social Security, also refer to Labour dispatch as "a method of employment whereby the employer dispatches the employees it recruits to other employers, and the latter employers directly manage the working process of such employees"[5]

1.2.2 Temporary Staffing Agency Employment (TSAE) and the Human Factors

The impacts of human factors such as job stress, satisfaction, commitment, security and safety on both employee and organizational output cannot be overemphasized in today's work environment[17]. While several studies have been conducted on temporary employment, contingency employment and TAW and their interaction with the human factors in the West and other parts of the World [1]–[4], [7]–[9], [16]–[61][15], little can be said about Temporary Staffing Agency Employment(TSAE) in China and Asia as a whole. The interactions between the human factors and output becomes even more complex as a result of the triangular relationship that exist in TSAE[6], [10], [15], [16]. The client (Corporate customer) has no formal employment contract with the employee (Dispatch worker), but rather has a contract with the Intermediary TSA, which in turn has a temporary employment contract with the employee [8][5], [10]. The relationship is depicted in Figure 1.

The dilemma of the dispatch worker in this triangular relationship compels him/her to develop affiliation(acuities, commitments, loyalties and behaviors) with two separate organizations: first, a temporary firm(TSA), which is the employer of record, and secondly, a client organization, where the work is performed[8], [15], [16], [30]. As the TSA selects appropriate workers, dictate their levels of compensation and defines to the workers the general content of the jobs to be performed, the client organization specifies the exact conditions as well as the nature of the tasks expected of the worker in carrying out his on-site duties[15], [30].

1.2.1.1 Job Stress

The interface between the worker and the condition of work results in job stress[17]. Any mismatch between the demands of the job and the capabilities, resources, or needs of the workers results in detrimental physical and emotional responses of the worker[21][52][18][17]. Several Studies have reported a negative relationship between job stress and performance in general. For instance, a study on occupational stress and organizational performance at the University of Tehran, Iran reported high levels of job stress among the employees[45]. The study indicated that the stressors adversely affected the general physical health of employees, their job satisfaction and performance as well as commitment. The findings on a similar study on "The Relationship Of Job Stress With Turnover Intention And Performance:

Moderating Role of OBSE” also in Iran, was consistent with the former [19]. The latter also reported a negative relationship between job stress and job performance. Likewise, a study among public sector employees in Istanbul, Turkey, to examine the relationship between job stress and job performance considering emotional intelligence as a moderating variable, found an adverse relationship between the two variables.

However consistent the findings of these studies are, in terms of the relationship between job stress and job performance, one cannot completely generalize the relationship for all job environments and or relationships. The participants in these studies cited above :[19], [45], [60] were permanent employees in the organizations they work for. The dynamics in TSAE may differ in terms of concept and setting (i.e. China). This paper therefore posit:

H1: *Temporary Employees (Dispatch Workers) in TSAE in China have high job stress and that negatively affect their overall performance in the Client organization.*

1.2.1.2 Job security

The idea of an individual remaining employed with the same organization with no attenuation in any rights or privileges association with the employment creates a sense of security for the employee[47]. Where there are disparities in an employee's level of 'experienced' security and the preferred level of security regarding his or her employment status, job insecurity sets in[58]. The relationship between job insecurity and performance has been widely studied in different contexts[17][52][58][59]. The limited timespan of temporary employment has a higher chance of breeding in workers a deleterious feeling of insecurity. This is evident in the worker's anticipation of unemployment which is often created by the fear of job loss [31]. Intermediated temporary workers often expect the temporary firm to offer a reasonably secure job in exchange for loyalty as part of the psychological contract that exists in this triangular relationship. Therefore, when the worker perceive their job as being highly insecure, the psychological contract is broken. This results in a feeling of injustice which, in turn, leads to individual strain, negative work attitudes, apathetic behaviors and a backward feeling of loyalty to both the client organization and the temporary firm [4]. This paper therefore posits:

H2: *Temporary Employees (Dispatch Workers) in TSAE in China have low job security and that negatively affect their overall performance in the Client organization.*

1.2.1.3 Job Commitment

Employee commitment to their firms has been found to have a significant positive relation with employee performance[3][18][62]. Social Comparison and Social Exchange Theories hypothesize that employees' reactions are monitored by perceptions of fairness[31], [62]. Using social comparison processes, employees evaluate how the outcomes they receive compare with the outcomes received by referent others[62][31]. In cases where this evaluation leads temporary workers to feel they are not receiving the outcomes they deserve, and where they can see that permanent workers do, in fact, receive these outcomes, temporary workers may come to feel a sense of deprivation[31]. This can result in lower job satisfaction and reduced organizational commitment[31]. However, the findings of a study on temporary employees organizational commitment and its determinants indicate that the temporary employee's commitment to the organization has a positive relationship with the work environment, application of different skill for work and autonomy[28]. Due to the triangular labour relationship that exist in TSAE, the employee is neither able to fully commit to the client organization nor the TSA[8], [15], [16], [30], [31], [63][28]. The complexities in this kind of working relationship and the difficulty in establishing the direction of commitment or loyalty, this paper proposes two hypothesis:

H3a: *Temporary Employees (Dispatch Workers) in TSAE in China have high commitment towards the client organization they work at and that positively affect their overall performance in the Client organization.*

H3b: *Temporary Employees (Dispatch Workers) in TSAE in China have high commitment towards the Intermediary TSA that employed them and that positively affect their overall performance in the Client organization*

1.2.1.4 Job Satisfaction

A pleasurable or positive emotional state resulting from the assessment of one's job or job experience gives a sense of job satisfaction[64]. Traditionally, job evaluation emphasizes on all the feelings that an individual has about his/her job. Yet the demands of individuals as opposed to job satisfaction equally make a job pleasing. The wellbeing or satisfaction gap between permanent and temporary workers suggests that, temporary staff have a different psychological contact with the organization than their permanent counterparts[40], [44], [65]. Permanent workers generally feel secure hence are satisfied with their jobs while their temporary counterparts have a less perceived sense of job security which is either due to their working conditions or the tenure of their jobs[31]. A study on agencies and labor dispatch in China finds that dispatched workers are often paid less than permanent or contract workers[5]. On the other hand, a research on flexicurity and job satisfaction reports that job satisfaction is independent on the type of employment engagement but rather the perceived job security the worker might have[51]. A temporary engagement accompanied with good terms and conditions and the perceived level of security of staying employed till the end of the contract is more preferable to permanent jobs where the perceived risk of being made redundant is high[51]. In terms of the triangular relation between the temporary worker, the employer and the agency, it has been argued that, loyalty to the supervisor is positively related to job satisfaction resulting in favorable outcomes[58]. These interesting arguments lead us to another hypothesis in the Chinese context:

H4: *Temporary Employees (Dispatch Workers) in TSAE in China have high job satisfaction and that positively affect their overall performance in the Client organization.*

1.2.3 The Chinese Culture and Work Place Behavior

Diverse social structure, culture and historical contexts cultivate different values, ethics and social norms, which can radically change the work place behavior predominant in different societies[66][67].

In a study on Work Stress, Chinese Work Values, and Work Well-Being in the Greater China, the author argues that cultural and social variables (e.g. values and attitudes) influence the perception of work stress[68]. According to the study, employees are intrinsically motivated and less affected by work stress when they are high on certain work values[68]. These work values in turn produce some beneficial effects such as achievement, hard work, concern for others and honesty[68].

The "Confucian Work Dynamism" forms the core of work values in the Chinese context and it has tremendous impact on Chinese work behaviors[68], [69][67]. In particular, Chinese worker behavior and output is largely influenced by work values such as collectivism (prioritizing group goals over personal interests), endurance (patience and persistence), hard work (frugality and balance), and Guanxi (relation orientation, respecting social order and protecting others' "face")[68], [69][67]. The virtue of hard work, for instance, is highly emphasized and celebrated by the Chinese tradition[70], [71]. Moreover, Chinese parents, in the upbringing of their children, inculcate in them the mindset that "one can achieve anything as long as one is willing to work hard"[70], [71]. This leads to strong work ethics and creates individuals who are dedicated, motivated and responsible, with a strong sense of commitment and loyalty to institutions, such as work organizations[68].

For the purposes of this study, the authors do not attempt to test the interactions of the Chinese culture with the work place dynamics and its impact on their performance. However, the study hopes to provide additional insights that could aid understanding of the findings of this study and future studies, especially in the Chinese context.

2. RESEARCH METHODOLOGY

2.1 Research Design Approach

2.1.1 Population and sample

Officially, there is a general lack of statistics and reports on Temporary agency workers from the 31 provinces in China[5][72]. Furthermore, discrepancies are also observed in the estimated total number of agency workers in China even when reported. For instance, in the 2014 Cielt Economic Report(based on data from 2012/2013), the number of temporary agency workers in China was excluded due to, as the report indicates, lack of reliable and comparable data[2]. According to the Cielt report however, Staffing

Industry Analysts (SIA) reported that estimates for China were around 27 million in 2012/2013[2]. The estimation of SIA seems to be consistent with that of the Ministry of Human Resource and Social Security of China (Which also estimates about 27 million for 2011)[2], [5]. These estimates are however sharply contested by the All-China Federation of Trade Unions which rather report about 60 million temporary agency worker in 2011. Other scholars equally report different figures[5].

That said, as China's population and economy continues to grow, its cities attract investors both locally and internationally. Sichuan province, historically known as the "Province of Abundance" is one of the top-tier industrial cities in China. Chengdu, its capital, has equally become the fifth most crucial city for investment out of about 280 urban cities in China[73]. According to the 2010 Population Census, the city of Chengdu has a population of 14 million, making up 17.5% of the Sichuan province of China. Chengdu remains the fourth largest city in China in terms of the permanent resident population, ranking only behind Chongqing (29 million), Shanghai (24 million) and Beijing (21 million[74]). With a GDP of RMB1.566 trillion (approx. US\$162.2billion) in 2014(representing an increase of 8.9% year on year), more than 260 Fortune 500 companies and 12 consulates branch offices, Chengdu remains one of the most important economic, finance, commerce, culture, transportation, and communication centers in Western China[74][75]. The study therefore selected Chengdu as the study location.

For the purposes of this study, thirteen (13) TSA within Chengdu city agreed to participate. Overall 288 temporary workers (dispatch workers) who work with the TSA participated in the study. There were three main criteria for inclusion in the sample: (1) voluntary participation (2) must be dispatched by one of the participating agencies and working with a firm in Chengdu city and (3) must be available for study (one-on-one interview and focus group discussion). All the respondents agreed to participate in strict anonymity and confidentiality. The sample included both foreign nationals and Chinese nationals.

2.1.2 Measures

A well-structured paper-and-pencil survey questionnaire was administered to 288 TSAWs in the xxxx TSEAs within Chengdu; the capital city of Sichuan Province of the Peoples' Republic of China. The questionnaire was structured to include some demographic characteristics of respondents and a series of questions for each variable used in the study – employee commitment to both agency and firm, job satisfaction, job stress, job security and employee output or performance. Some of the items in the questionnaire were adapted from literature[76][77], [78] [31] while others were included after survey pretest and adapted to Temporary Staffing Agency Industry in the Chinese context.

A seven-point Likert scale was adopted for all the items measured with anchors ranging from 1(strongly disagree) to 7(strongly agree). For the purposes of hypothesis testing, reliability assessment was done to examine the data reliability before the empirical analysis. Interrater reliability was assured using Cronbach's coefficient (α). Generally, a value of around 0.7 is considered adequate to show internal consistency[79][80], [81]. The α values for Commitment to Firm (0.75), Commitment to Agency (0.80), Job Satisfaction (0.86), Job Stress(0.85), Job security (0.74) and Overall output or Performance (0.78), all satisfied this measure[79]. These results provide strong support for the reliability of these measures. Overall, there were 10 items that measure the level of employee's commitment to the TEA, 8 items that measure employee's commitment to the user firm and 7 items that measure the level of employee's perception on their job security. Additionally, there were 11 items that aimed to measure the extent to which the employee is satisfied with both the intrinsic and extrinsic features of their Job life and 14 items measured the level of job stress on the employee. Finally, employee's overall job performance was measured with the aid of a 10-items self-appraisal scale which examines different aspects of the employee's Performance.

A regression technique was used to determine the effects of Commitment to Firm and Agency, Job Satisfaction, Job security and Job Stress (the independent variables), on employee performance or output (dependent variable)[82].

In addition, short session focus group discussions were conducted to provide an in-depth understanding of the TSAE industry in China. For each participating TSA, two groups were created. Each group comprised five (5) respondents who were randomly selected (using STATA "runiform ()" command). The

discussions were meant to provide complementary insights into other features of the Chinese societies (especially culture) that have greater likelihood to influence their work place behavior.

2.2 Method of Estimation

A regression technique was used to estimate the effects of the independent variables on employee performance or output[77]. Among a group of unbiased estimators Ordinary Least Squares (OLS) has the minimum variability, it is efficient and consistent; this makes OLS the Best Linear Unbiased Estimator (BLUE)[82]. The study uses OLS estimator to estimate the effects of commitment, job satisfaction, job stress, and job insecurity on employee's output - worker's performance. The natural log of the arithmetic mean of the responses of each variable was used for the regression analysis[82]. The Variance Inflation Factor (VIF) and the Breusch–Pagan–Godfrey (BPG) test were used to test for the presence of multicollinearity and heteroskedasticity respectively. The BPG test was used because it does not depend on the number of central observations and the variable causing the heteroskedasticity as the Goldfield and Quant test[82]. The t-test was used to test the impact of each independent variables on the dependent variable while the F- test was used to test for the overall effect of independent variables on the dependent variable. In all the tests the p-value and the critical value approaches were used in drawing conclusions. An alpha (level of significance) of 5% is used in the study. Spearman's Rank Correlation Coefficient test established the relationships between and among the variables. Tables were used to the present results of various tests

2.3 Model Specification

The general model for the study is:

$$\Psi_i = f(S_i, T_i, \Omega_i, A_i, F_i, \epsilon_i) \dots\dots\dots(1)$$

Where:

Ψ = overall output or performance of employee in TSAE;

S = a measure of Employee Job Security;

T = a measure of Employee Satisfaction;

Ω = a measure of Employee Job Stress;

A = employee commitment to agency;

F = employee commitment to firm;

ϵ = the stochastic term; a measure of other variables that can affect output of an employee but not included in the regression equation;

i = the i -th respondent.

Taking the log of model (1), the specific model for becomes:

$$\ln \Psi_i = \beta_1 + \beta_2 \ln S_i + \beta_3 \ln T_i + \beta_4 \ln \Omega_i + \beta_5 \ln A_i + \beta_6 \ln F_i + \epsilon_i \dots\dots\dots(2)$$

Where:

β_1 measures the output level holding all the independent variables constant;

β_2 measures the distinctive effect of job security on employee's output;

β_3 measures the distinctive effect of job satisfaction on employee's output;

β_4 measures the distinctive effect of job stress on employee's output;

β_5 measures the distinctive effect of employee commitment to agency on employee's output;

β_6 measures the distinctive effect of employee commitment to firm on employee's output;

2.4 Prior Expectations

It is expected that there is:

- i. A negative relationship between high job stress and overall performance.
- ii. A positive relationship between high job security and overall performance.
- iii. A positive relationship between commitment to firm and overall performance.
- iv. A positive relationship between commitment to agency and overall performance.
- v. A positive relationship between high job satisfaction and overall performance.

3. RESULTS AND DISCUSSION

The focus group discussions provided greater understanding into the concept of TSAE in China. The "Confucian Work Dynamism" seems to be the dominating feature (culture) in the Chinese work life. Particularly, in keeping with the Confucian tradition, commitment to group (organization/agency) goals, hard work, endurance and protecting harmonious social relationships (Guanxi) are central features of Chinese collectivist values.

Furthermore, as was reported, the virtue of hard work is highly extolled in the Chinese tradition. Subsequently, Parents instill the virtue of hard work in their children from childhood. This leads to a strong work ethic and as a result, Chinese are often willing to put extra effort into their work if they feel that they are trusted and accepted by their employers.

Again, it was reported in the discussions that most Chinese employees feel a strong sense of responsibility towards completing the work assigned by the organization or agency (group). Moreover, due to the collectivist culture of the Chinese, group goals are always prioritized over personal interests. Completing tasks at work therefore take precedent over their personal interests. Moreover, most Chinese consider the organization as an extension of their family. Therefore, as a Chinese tradition, they respect their parents or grandparents at home and at work, they respect their managers/employers and obey instructions. Some of the respondents' also reported that they have voluntarily worked overtime for no compensation is a show of loyalty to the organization or agency.

The triangular relationship that exist between the Employer, the Client and the Employee is illustrated in Figure 1.

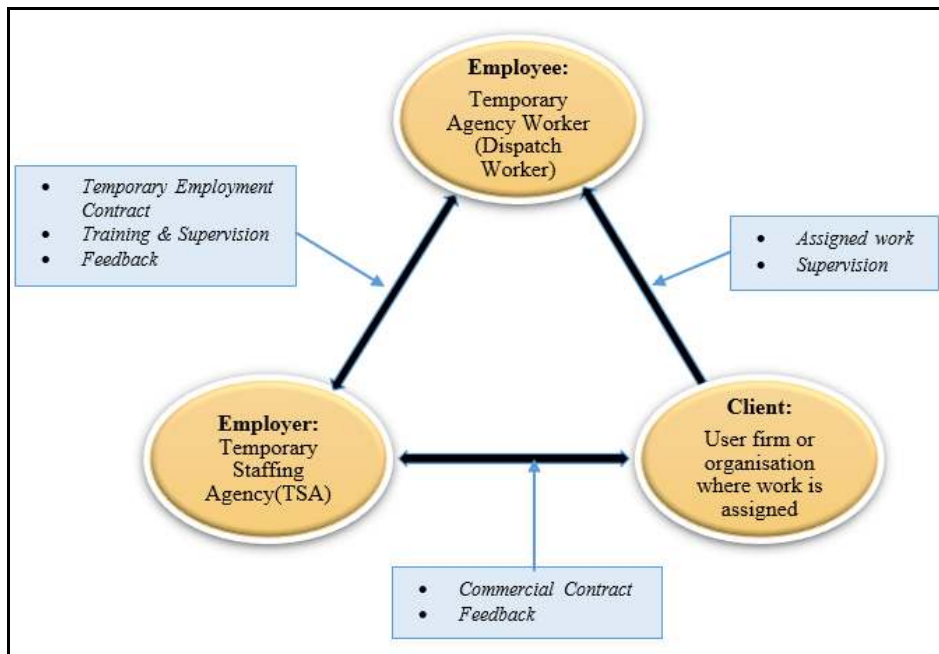


Figure 1: The Triangular Relationship existing in TSAE in China (Modified from[5])

The client (Corporate customer or user firm) has no formal employment contract with the employee (Dispatched worker), but rather has a contract with the Intermediary Employer (TSA). The TSA in turn has a temporary employment contract with the employee. As the TSA selects appropriate workers, dictate their levels of compensation, provides the relevant training to the dispatched workers where necessary, defines to the workers the general content of the jobs to be performed and supervise their work. The user firm on the other hand, specifies the exact conditions as well as the nature of the tasks expected of the dispatched worker in carrying out his on-site duties. The user firm also monitors the performance of the worker and provides feedback to the TSA. Depending on the performance of the dispatched worker, the user firm can ask the TSA for the worker to be replaced or maintained for long periods. The performance to the worker largely determines the duration of the commercial contract between the TSA and the user firm.

Table 1 shows the basic profiles and distribution of the sample: gender, age, marital status, highest level of education, Industry within which they work, duration of engagement as a temporary or dispatch worker of their current agency and the pay rate.

Table 1: Characteristics and Distribution of Respondents (Source: Field Work, 2015)

Variable	Frequency	Frequency %
<i>Gender</i>		
Female	112	38.89
Male	176	61.11
<i>Age(years)</i>		
Younger than 25	38	13.19
25-35	250	86.81
<i>Marital Status</i>		
Single	233	80.90
Married	50	17.36
Widow/Widower	5	1.74
<i>Education</i>		
Bachelor	192	66.67
Master	96	33.33
<i>Industry</i>		
Education	220	76.39
Arts/Entertainment	35	12.15
Finance/Banking	15	5.21
Management	18	6.25
<i>Duration of Employment</i>		
Less than 3 months	64	22.22
3-6 months	112	38.89
6-9 months	32	11.11
9-12 months	32	11.11
More than 12 months	48	16.67
<i>Pay Rate</i>		
Hourly	96	33.33
Monthly	192	66.67

Table 2 reports the summary statistics and Spearman's rank correlation coefficient (ρ) between the dependent variable (performance) and all the independent variables. From Table 2, commitment to firm is the best predictor of dispatch worker performance with the highest coefficient (ρ) of 0.6772. The next most important independent variables are Commitment to Agency, Job security and Job stress, each with a coefficient of 0.6289, 0.4704 and 0.4121 respectively. Although all the variables were statistically significantly related to Dispatch worker performance, Job satisfaction had the least correlation coefficient ($\rho=0.3684$).

Table 2: Descriptive Statistics and Spearman's rank correlation coefficients

Variables	N	Mean	SD	1	2	3	4	5
1. Performance	288	4.9444	1.7502					
2. Commitment to Agency	288	4.4444	0.6364	0.6289*				
3. Commitment to Firm	288	4.4944	0.6732	0.6772*	0.8868*			
4. Job Security	288	4.2677	0.5747	0.4704*	0.0615	0.2470*		
5. Job Satisfaction	288	4.2525	1.0666	0.3684*	0.7112*	0.7504*	0.2994*	
6. Job Stress	288	4.6032	1.0187	0.4121*	0.7121*	0.6915*	0.1941*	0.8909*

*denote significance at, 5%

To further test the extent to which these five factors(Commitment to Agency, Commitment Firm, job security, job satisfaction and job stress) influence the dispatch worker's output or performance in the firm, we employed linear regression to evaluate the magnitude of influence each independent variable has on a dispatch worker's output(performance) in the Firm. But firstly, we tested for multicollinearity and heteroskedasticity. The Variance Inflation Factor (VIF) was used to test for multicollinearity and Breusch–Pagan–Godfrey (BPG) test to test for the presence of heteroskedasticity[82]. The test results for multicollinearity is shown in Table 3.

Table 3: Variance Inflation Factors (VIFs)

InS	1.329
InT	3.716
InΩ	4.601
InA	4.072
InF	3.929

Note: $VIF(j) = 1/(1 - R(j)^2)$, where $R(j)$ is the multiple correlation coefficient between variable j and the other independent variables. Minimum possible value = 1.0. Values > 10.0 may indicate a multicollinearity problem

The results from Table 3 show that none of the variables has a VIF of 10 or more and hence there is no problem of multicollinearity[82]. Again, we tested for the presence of heteroskedasticity and autocorrelation. The Breusch-Pagan-Godfrey test for heteroskedasticity showed a test statistic of LM = 66.099012 with P-value = .0000. Using the P-value approach, a value of .0000 is statistically lower than the level of significance used in the study ($\alpha=0.05$). Hence, the null hypothesis that 'Heteroskedasticity not present' must be rejected and therefore needed to be corrected. The regression results of the corrected model is shown in Table 4.

Table 4: Regression Results

	Coefficient	Std. Error	t-ratio	p-value	
Const	-4.07264	0.119724	-34.0168	<.00001	***
lnS	1.98656	0.0558718	35.5557	<.00001	***
lnT	-1.00807	0.0379503	-26.5628	<.00001	***
lnΩ	-0.47855	0.0487439	-9.8176	<.00001	***
lnA	1.06224	0.0734334	14.4653	<.00001	***
lnF	2.20911	0.0812938	27.1745	<.00001	***
R-squared	0.903434	Adjusted R-squared		0.901721	
F(5, 282)	527.6537	P-value(F)		.0000	

n = 288. Dependent variable: $\ln \psi_t$. ***, ** and * denote significance at 1%, 5% & 10% respectively

The regression results in Table 4 show that there is a positive relationship between Job security and Employee performance, Employee commitment to Agency and Performance as well as employee commitment to Firm and Performance. This is statistically significant at a 1% level.

Consistent with similar studies[45][19][17][60], the results (in Table 4) show that job stress relates negatively with performance (H1). Some previous studies attribute this negative relationship to role ambiguity and role conflict (in terms of job stress) whereas performance is explained by cognitive and motivational processes[19]. Lack of relevant knowledge of most effective job behaviors (role ambiguity) and conflicting information and expectations within work environment generate role stress which tend to weaken effort-to-performance[19]. In the Chinese context however, there are other contributing factors the observed relationship between stress and performance. These include high unemployment rate among young graduates, aging population, rural-urban migration and the “one-child” policy of China[6], [10], [83]–[85].

Again, Table 4 indicates a positive relationship between Job security and dispatch worker performance which is in support of H2. This implies that when employees perceive high job security in their engagement with the temporary staffing agency, their output at the client organization increases and vice versa, ceteris paribus. This relationship is statistically significant at 1% level. The finding is in congruent with previous studies[17][16].

The study also finds a statistically significant positive relationship between employee commitment to Firm and performance as well as employee commitment to agency and performance at 1% level. This finding supports hypotheses (H3a and H3b). Similar to the findings of other authors[3], [18], [62][63][35], the results (in Table 4), points to higher levels of employee commitment towards the client organization than the agency. Characteristic of Labour dispatch work in China (see figure 1), positive feedback from client organization on employee performance to agency is very critical in determining the employability or continuous engagement of the employee. The employees are therefore more likely to show higher commitment to the client organization. Insights from one-on-one interviews with selected respondents indicated that employee commitment to client organization and performance largely determines the continuity of the commercial contract arrangements between the client organization and the agency in the triangular relationship (see figure 1).

The study finds a negative relationship between job satisfaction and performance. This suggests that even when employees are dissatisfied with their job, their performance may still be high and vice versa, all things being equal. This finding contradicts the initial hypothesis (H4). Logically, low job satisfaction should translate into low performance, ceteris paribus. This finding is rather unique and an inquiring one that requires further studies to explain the causative factors. A couple of reasons can be ascribed to this finding but requires further testing to validate the assertions. For instance, the Chinese culture (Confucian Work Dynamism) which upholds the virtue of hard work, endurance and prioritization of group goals (organizational goals) at the expense of personal interests is likely to be a reason for this finding[66], [68]–[71]. Another likely reason could be the interaction between job performance and the other variables

in the study. For instance, the high correlation ($p=0.8909$) between job stress and job satisfaction among the respondents in the sample as indicated by the Spearman Rank Correlation test result in Table 2.

Finally, the combined effect of all the independent variables is also depicted in Table 4. The regression result indicates a high R-squared of 0.901721. Thus jointly, Job security, Employee commitment to Agency, employee commitment to Firm and Job security as well as Job satisfaction explain more than 90% of the variation in employee performance among dispatch workers in China. Furthermore, the test of overall significance showed a test statistic value of 527.6537 with a P-value = .0000. This means that aside the R-squared being high, the five independent variables jointly have statistically significant effect on dispatch worker performance at 1% level. Figure 2 provides model of TSAE in China and summarises the findings of the study.

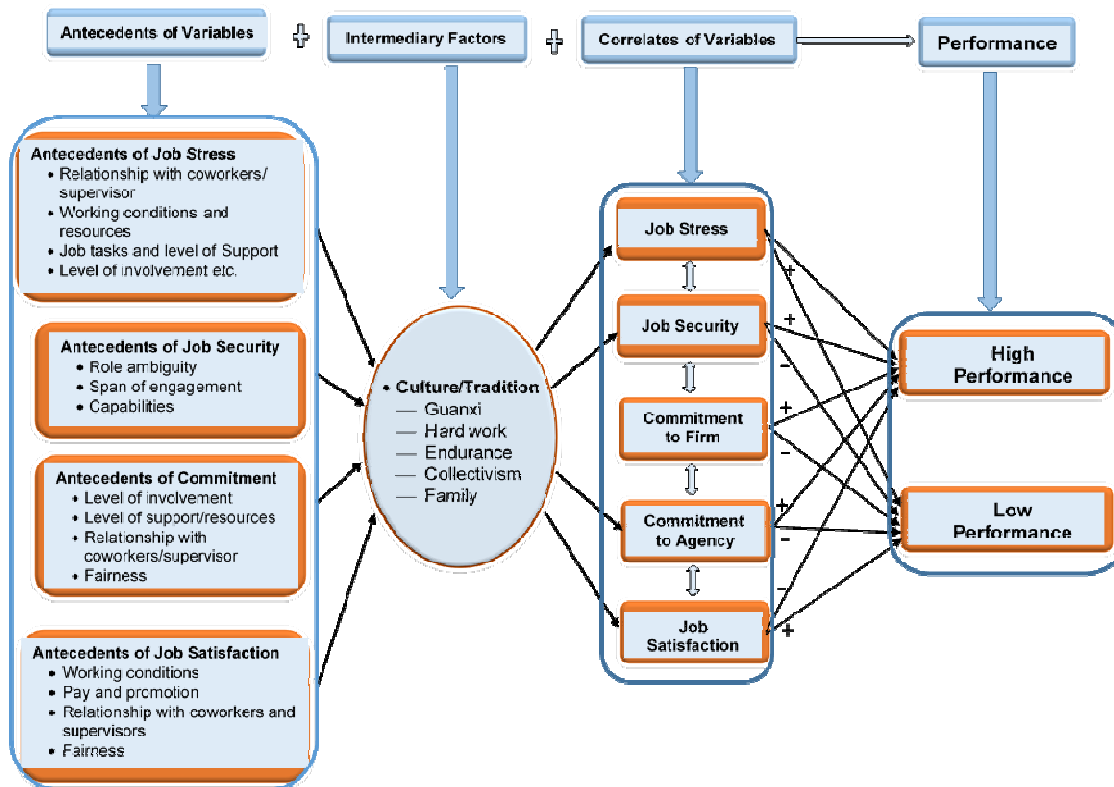


Figure 2: Model of TSAE in China (Source: Author's Construct)

4. CONCLUSION

The purpose of this study was to assess the impact of the human factors (commitment to firm and agency, job security, job satisfaction and job stress) on the overall performance or output of dispatch workers in Temporary Staffing Agencies Employment (TSAE) in China. The study finds a statistically significant positive relation between job security and performance, commitment to Firm and performance as well as commitment to agency and performance. Furthermore, the findings also indicate a negative relationship between job stress and performance as well as between job satisfaction and performance. Again, the study also find that interactions among the independent variables highly impact on employee performance. In particular to the findings, the negative relationship observed between job satisfaction and performance (*contrary to H4*) is rather unique and a curious one that requires further tests to admit a causative factor. In addition, the study also explored other potential features peculiar to the Chinese societies which could likely influence their work behavior. The study finds that the Chinese work values are deeply rooted in their culture. Specially, in keeping with the Confucian tradition, commitment to group (organization/agency) goals, hard work, endurance and protecting harmonious social relationships

(Guanxi) are central to the work life of Chinese. The findings thus suggests that the Chinese culture equally influence their work behavior as well as performance.

The study concludes that the human factors: commitment to firm and agency, job security, job satisfaction and job stress, all have greater impact on the performance of dispatch workers in China. The paper however hastens to add that the Chinese culture likely, has an overarching influence on the impact of the human factors on the overall employee performance. Thus, the paper acknowledges the complexity underlying the concept of TSAE in China and recommends further studies to broaden knowledge and understanding, especially the interactions between culture, the human factors and performance.

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COMPETING INTEREST

Authors have declared that no competing interests exist.

CONSENT

Not Applicable

ETHICAL APPROVAL

Not Applicable

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