

# Intolerance of uncertainty predicting work performance of Indonesian temporary employees mediated by personal initiative

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## Abstract

Temporary employees in Indonesia have less certainty over their recent and prospective careers. This study aims to investigate whether the Intolerance of Uncertainty (IU) may predict personal initiative (PI) and subsequently affect work performance (WP). It was hypothesized that there was a direct and indirect relationship between IU and WP, through the PI. The Purposive sampling technique was utilised in this research. The sample comprised 153 temporary employees who have been working in their current contract for more than six months. Data was gathered through The Intolerance of Uncertainty-12 items, Personal Initiative Scale, and Individual Work Performance Questionnaire and analyzed through Mediation analysis from PROCESS. The result reveals that IU does not have a direct relationship to WP (effect = -0.1450,  $p = 0.187$ ), however, IU indirectly predicts WP through PI (effect = -0.1510, LLCI = -0.3251, ULCI = -0.0079). Temporary employees who report higher IU will have less PI (effect = -0.1254,  $p = 0.0259$ ), and eventually, their work performance will decrease (effect = 1.2042,  $p < 0.001$ ). This research has some implications. First, during the employees' recruitment process, the organisation need to consider the IU as a predictor of WP, and the government need to ensure that the companies abide by the Indonesian Labour Law – Act 13 of 2003 related to employees welfare.

## Keywords

intolerance of uncertainty, personal initiative, temporary workers, work performance

## Introduction

All employers obviously demand optimal work performance from both their permanent and temporary employees. The concept of work performance has often been used to conceptualise employees' current contribution to and proficiency at work, which can be defined as "any action or behaviour taken by employees that are in accordance to the goal of organization" (Campbell et al., 1990). Work performance is the accomplishment of the assigned tasks which are the responsibility of the employee for achieving the organizational goals (Hasibuan, 2005). For all employers, an employee's work performance of the employee is the main determinant of the progress of their company. The achievement of the organizational goals, the increasing competitive ability of the company and the high level of productivity, are only achievable through employees who demonstrate high work performance. On the other hand, employees who have a low level of work performance would decrease the productivity and the effectiveness of the company and eventually lead to decreases in the annual benefit of the company (Okoye & Ezejiolor, 2013).

Several studies suggested that one predictor of work performance is a personal initiative (Grant et al., 2009; Humayra, 2019). Personal initiative (PI) uses an active approach (Fay & Frese, 2001), wherein, it is believed that people can actively influence their work environment. Alternatively, a passive approach is characterised by a pattern of reactive behaviour to the environment or a tendency to do only what one is instructed to do (Fay & Frese, 2001). For

instance, an individual's adjustment to their work would be determined by work characteristics (i.e. the amount of control over one's work or the job complexity) (Frese et al., 2007).

Three main characteristics of PI have been identified: patterns of self-starting behaviour to work goals (i.e. identifying future problems, solving reoccurring problems, and long-term planning), proactive nature (i.e. taking control of a situation without supervision), and persisting in overcoming any barriers found pursuing work goals (Frese et al., 1996, 1997). This is where individuals actively develop plans to prevent future problems, manage reoccurring problems, always attempt to get feedback and creatively develop new methods of problem-solving. Eventually, Individuals reporting high levels of PI could increase organizational and individual effectiveness (Fay and Frese, 2001), and carry changes forward both at the individual and organizational levels (Frese et al., 2007).

Based on Indonesian Labour Law – Act 13 of 2003, employees in Indonesia can be categorized as temporary employees who are under a fixed-term employment contract, or as permanent employees who are under an indefinite-term employment contract. Fixed-term employment contracts work

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only for a set period of time which can last for up to two years and may be extended for 12 months. After a 30-day grace period, this contract can be renewed for a maximum period of two years.

According to article 59 of the constitution, temporary employees are not allowed to be hired in the main production (International Labour Organization, 2004). They can be contracted only for “a job that will finish in a specified period of time, that is: (a) Work to be performed and completed at one go or work which is temporary by nature; (b). Work whose completion is estimated at a period which is not too long and no longer than 3 (three) years; (c). Seasonal work; or (d). Work that is related to a new product, a new [type of] activity or an additional product that is still in the experimental stage or try-out phase” (International Labour Organization, 2004; p. 15). In addition, all contract agreements should be written.

However, written contracts are not always drafted to standard requirements, and many employers, particularly micro-businesses, often do not put the contract agreement in an adequate written draft or even make do without it. Many employers still recruit temporary employees for their main production. Furthermore, employers sometimes prolong the contract against the act, which in terms of years can be indefinite. Out of these aforementioned problems, temporary employees do not get the support that permanent workers do, although in many cases they do the same task as the permanent employee. For instance, temporary employees often do not get health insurance, family allowance, severance payment, or pension (Ni'mah & Nasif, 2016; Setioningtyas, 2016; Triyono, 2011).

Therefore, temporary employees face uncertainty both in their current work and future career, and it is essential to understand how this uncertainty for temporary Indonesian employees impacts their work performance and personal initiative. This point raises the assumption that an internal cognitive bias, Intolerance of Uncertainty (IU), could provide a significant contribution to how these temporary employees would perceive their uncertain situation. IU refers to the difficulties in tolerating uncertain situations where one does not have enough information to predict – or cannot predict – the outcome of a particular event. IU has been associated with negative interpretation biases for uncertain situations where information is not available (Oglesby et al., 2013), which can lead to unknown events being perceived as disproportionately threatening, both in their frequency and impact (Berenbaum et al., 2008; Luhmann et al., 2011).

Originally, IU emerged as a cognitive risk factor for various psychopathologies such as generalized anxiety disorder, social anxiety disorder, panic and obsessive-compulsive disorder, and displays strong theoretical and empirical correlations with worry (Buhr & Dugas, 2006, 2009; Freeston et al., 1994) and rumination (Yook et al., 2010). Researchers now frequently define IU as a transdiagnostic risk factor for psychological difficulties (Yuniardi, 2020). Thus, individuals with high IU tend to experience a range of alarming or distressing thought processes and emotions in response to uncertain stimuli, and as a consequence can result in behavioural problems.

It is for the aforementioned reasons that the current study aims to explore the relationship between IU and work performance through the mediating role of PI. Because of the wide utility of PI for different criteria of job success,

including work performance; it's important to understand the various factors which compromise PI and its relation with work performance.

## Method

### Participants

The purposive sampling technique was utilised in this research, and all participants were temporary workers who have already worked on this current contract for at least 6 months. There were 153 participants who were recruited from four national companies in East Java Province, Indonesia. Of this number, 86 participants were females (56.21%) and 67 were males (43.79%). Participants' ages ranged from 17 to 38 years old (Mean = 21.22 y.o, SD = 3.51). Nearly half of the participants have worked for 6 months to 1 year (N = 72 or 46.41%), while the remaining have worked more than 1 year (N = 82 or 53.59%). From G\*Power analysis (Faul, Erdfelder, Buchner & Lang, 2009), this number is fruitful to detect a moderate effect with power = 0.80 and  $\alpha = 0.05$ .

All participants completed the paper and pencil questionnaires voluntarily which were disseminated by the Human Resource Department (HRD) of each company involved in this study. This research was granted ethical approval from the Research and Service Community Bureau of the University of Muhammadiyah Malang.

### Measures

The Intolerance of Uncertainty Scale-12 (IUS-12) which was developed by Carleton et al. (2007) has two dimensions (prospective anxiety and inhibitory anxiety), a total of 12 items, but has been reported as having a more stable structure (Mahoney & McEvoy, 2012) ( $\alpha = 0.81$ ). In total, there were twelve items of five-point Likert scale (1=Strongly disagree, 5=strongly agree), and it has been translated into Bahasa Indonesia (Yuniardi, 2019, 2020). An example of items of IUS-12 is “Unforeseen events upset me greatly”.

The Personal Initiative Scale (PIS) was developed by Frese, Fay, Hilburger, Leng, and Tag (1997) ( $\alpha = 0.78$ ). It consists of three dimensions (self-starting, persistence, proactive) with a total of 12 items on a 1-to-5-point Likert-type scale (from I totally disagree to I totally agree). An example of the item is “Whenever something goes wrong, I search for a solution immediately”. The PIS has demonstrated excellent psychometric properties (Bernabé et al., 2016). It has been translated into Bahasa Indonesia (the official language of Indonesia) through a rigorous method by authors.

Individual Work Performance Questionnaire (IWPQ) was developed by Koopmans et al. (2011) ( $\alpha = 0.88$ ). The IWPQ used in this study was the Indonesian Version, which has been translated and used in a study by Widayastuti & Hidayat (2018). The IWPQ consists of three dimensions (task performance, contextual performance, and counterproductive work behaviour) with a total of 18 items in a 5-point rating scale (“seldom” to “always” for the task and contextual performance, “never” to “often” for counterproductive work behaviour). An example of items is “I have demonstrated flexibility”. The Indonesian version has been reported to demonstrate excellent internal consistency (Prawira, 2018; Humayra, 2019).

**Table 1.** Means, standard deviations, Cronbach's Alpha and correlations between variables

Variables	Mean	SD	$\alpha$	IU	PI
IU	33.39	6.27	0.81		
PI	35.82	4.37	0.78	-0.18*	
WP	65.32	9.92	0.84	-0.19*	0.55**

note: \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

**Table 2.** The effects and 95 % confidence intervals for the model

Model pathway	Estimated effect	SE	95% CI	
			Lower	Upper
IU $\rightarrow$ WP	-0.145	0.109	-0.361	0.071
IU $\rightarrow$ PI	-0.125	0.056	-0.236	-0.015
PI $\rightarrow$ WP	1.204	0.157	0.894	1.515
IU $\rightarrow$ PI $\rightarrow$ WP	-0.151	0.081	-0.325	-0.008

## Data Analysis

Missing data and outliers analyses were performed as a part of the preliminary analysis. Descriptive statistics were performed in order to depict the data. The main analysis which was mediation analysis using PROCESS was performed to examine the hypothesis.

## Result

Preliminary analysis revealed that there was no missing data and all data were distributed normally (all skewness and kurtosis  $< 1.00$ ). The descriptive statistics for the variables used in this study and their correlations are shown in Table 1.

As can be read from Table 1, all variables have acceptable internal consistency with Cronbach's Alpha above 0.70. The correlational matrix showed that IU has a significantly intermediated correlation with both PI and WP, while PI and WP were correlated strongly. Multicollinearity was not indicated. The result from mediation analysis using bootstrap analysis through PROCESS from Hayes which shows the effects and their associated 95% confidence intervals is depicted in Table 2 below.

As can be seen in Table 2, the direct effect of IU on WP was not significant (effect = -0.1450,  $p = 0.187$ ). However, the indirect effect of IU on WP through PI (effect = -0.1510) was significant which is indicated by zero does not occur between the range of CI 95% (LLCI = -0.3251, ULCI = -0.0079). IU significantly predicted PI where the increasing IU would estimate the decreasing of PI (effect = -0.1254,  $p = 0.0259$ ), while PI itself predicted WP where the decreasing PI would lead to the decrease of WP (effect = 1.2042,  $p < 0.001$ ).

## Discussion

Due to the uncertainty faced by Indonesian temporary employees, the current study aimed to examine how IU relates to work performance, with PI potentially mediating this relationship. Two hypotheses were made: that IU would be directly related to work performance, but would also display an indirect effect on work performance through PI. As predicted, an inverse and indirect relationship existed between

IU and work performance as mediated by PI. This suggests that as temporary employees IU increased, they displayed lower levels of PI, and this subsequently lead to reductions in work performance. However, IU was not significantly related to work performance directly. Implications are discussed below.

Although there have been clear theoretical links between IU and PI (Fay & Frese, 2000, 2001; Wilson, 1973), this is the first study to display an empirical link between the two constructs. Wilson observed that a generalized intolerance of uncertainty was related to psychological conservatism, which involves difficulties when coping with and adjusting to uncertainty and change. Later research has also helped to identify the role of psychological conservatism with the tendency to display lower PI (Fay & Frese, 2000). Accordingly, the correlations between IU and PI in the current study support the conceptualization that IU, potentially through increased psychological conservatism, makes it difficult for temporary employees to display effective PI. Pulakos et al. (2000) suggested that because "Workers need to be increasingly adaptable, versatile, and tolerant of uncertainty to operate effectively in these changing and varied environments" (p. 612), being able to flexibly adapt to shifting job demands is crucial.

This flexibility is in part determined by the kind of approach taken towards challenges which arise at work. Temporary employees may be required to operate within a changing job role, which brings with it new and varied problems. Thus, PI allows one to adopt, and persist with, a range of problem-solving and decision-making processes in response to continual new problems, reoccurring problems, and prospective problems which are likely to arise.

While being prospective about one's job role is important for PI, it can have negative consequences for people high in IU. In the prospective IU sub-scale, questions such as "a small unforeseen event can spoil everything even with the best planning" and "I can't stand being taken by surprise" reflect the findings of Jensen et al. (2014), where IU individuals found it difficult to change a decision even in light of new information. This can heighten perceptions of stress when considering future events and during unexpected environmental changes. Temporary employees with high IU may therefore find it difficult to persist in prospective trouble-shooting required for PI. Furthermore, questions from the inhibitory IU sub-scale such as "when it's time to act, uncertainty paralyzes me" and "when I am uncertain I can't function very well" would make it difficult to operate under uncertainty which is also critical for PI. Both the prospective and inhibitory factors of IU can help to explain the cognitive and behavioural inhibition observed in work contexts, such as preoccupation, hesitation and avoidance, and thus contextualise the negative relationship between IU and PI in this study. Specifically, this supports the notion that PI is associated with an active approach (Fay & Frese, 2001), and IU is a potential driver of passive approaches which seem antithetical to and undercut PI.

Another way of conceptualizing this link comes from problem orientation. The emotion-focused problem-solving and coping strategies usually adopted by IU could disrupt the more problem-focused strategies of PI. Because IU has been linked with a negative problem orientation, both

in children (Lee & Woodruff-Borden, 2018) and adults (Clarke et al., 2017), behavioural inhibition such as hesitation, preoccupation and avoidance could perhaps reflect some of the more fundamental characteristics of IU. Firstly, a hallmark of IU is the cognitive bias toward perceptions of threat and severity of uncertain situations, which is also supported by neurophysiology evidence (Tanovic & Joormann, 2018). Thus, wrong decisions are attributed considerably more weight than people with lower IU, which could explain the lowered problem-solving confidence and slower decision-making. Secondly, IU is also associated with increased emotional distress in the face of uncertainty, and negative affect has been known to intensely modulate motor-related brain areas behaviour (Baumgartner et al., 2007; Hajcak et al., 2007; Oliveri et al., 2003) and activate defence-orientated reactions in response to adverse stimuli (Mobbs et al., 2007, 2010).

The findings also provide further evidence that PI is associated with work performance (e.g. Grant et al. (2009); Humayra (2019); Prawira (2018)). The fact that IU did not associate with work performance directly, but rather indirectly through PI, suggests that work performance rests not necessarily on IU, as IU individuals have been shown to perform similar to lower IU individuals in decision-making (Ladouceur et al., 1997) and task performance (Jensen et al., 2014) given certain conditions (such as operating within external restraints); but rather the ability to be intrinsically motivated while operating within uncertainty (PI). Thus employers should focus on developing PI within their employees to improve their work performance.

This study provides further support for the positive link between PI and work performance, and by extension, provides a pathway for IU to result in decreased work performance. One of the potential implications of these findings is that the government should ensure that legislation designed to prevent breaches of temporary contracts is appropriately enforced. Likewise, employers should be aware of individual differences in IU and aid employee's in developing PI.

Despite these findings, the study does have some limitations. Firstly, the sample size for the study was quite small, thus may not be representative of the general population, and the study did not include participants over the age of 38, and thus may not be reflective of older temporary workers. Finally, the study did not include a detailed outline of the characteristics of temporary jobs which would be fruitful for future studies.

## Conclusion

This study helps to further implicate the relevance of IU to various contexts and concepts. It seems reasonable that IU, characterised by its anxiety and behavioural inhibition under uncertainty, would be diametrically opposed to PI, which requires one to go above clearly stated job descriptions to tackle uncertain problems. These findings help to support this link and provide a clear pathway to reduced work performance for temporary employees in Indonesia. Likewise, our findings seem to suggest that IU is not directly related to reduced work performance, but rather by inhibiting proactive behaviours that are needed to adapt to uncertain job demands. Thus Indonesian employers should go beyond the early Labour act – 2003 - and the recent jobs creation law – 2020 – and increase job certainty for their employees, possibly by clearly

defining job roles and providing similar benefits as permanent employees should temporary contracts be extended. Likewise, employers should be aware of individual differences in IU and aid employees in developing PI. Future studies should examine the role of IU concerning various concepts which are linked to PI, such as work characteristics and control orientation.

## Declarations

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### Author contributions

**M. Salis Yuniardi:** Designing the research and directing the research process. **Matthew Cant:** Writing Introduction and Discussion Section. **Aransha K.N. Putri** = Editing and Proofreading. **Andi Nanda Amalia & Salsabila Arumbiya:** Data Collection.

### Conflict of interest

The authors declare that there is no conflict of interest in this study

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