

How Intrinsic Motivation and Innovative Work Behavior Affect Job Performance

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Abstract—Job performance is one of the most important aspects in organizational goal achievement. Studies in this topic have been widely covered in the literature. However, few studies have seen the job performance of lecturers at public university, as well as involving motivation and innovative factors as the antecedents. This study aims to see to what extent intrinsic motivation and innovative work behavior could affect job performance. 230 questionnaires were examined using SEM analysis and the results indicate that job performance affected by intrinsic motivation and innovative work behavior significantly. Innovative work behavior mediates the effect of intrinsic motivation toward job performance partially.

Keywords— Job Performance, Intrinsic Motivation, and Innovative Work Behavior

I. INTRODUCTION

Employee's performance is the output of an employee at the organization. The performance is expected to contribute to organizational goals by being one of competitive advantage of the organization.

Innovative work behavior with the support of managers as well as organization can be one of the competitive advantages for organizations (Shalley et al, 2004). Innovative work behavior has been related to motivational issue (Amabile, 1996; Feldman, & Lam, 2010). Therefore, intrinsic motivation plays a significant factor in promoting creativity and innovation among employees (Byron & Khazanchi, 2012; De Dreu, Nijstad, Bechtoldt, & Baas, 2008). Therefore, it is important to include motivation in innovative work behavior study.

Factors affecting job performance have been widely studied in the literature. However, none of them explicitly see how much intrinsic motivation and innovative work behavior affect job performance especially in education or public education system. In fact, although studies in intrinsic motivation have found relationship with job performance, no studies have seen the direct relation between innovative work behavior and job performance, as well as the mediation of innovative work behavior between the two variables.

The purpose of this study is to see to what extent intrinsic motivation with innovative work behavior acts as mediation will affect performance of lecturers at public universities. The contribution of this study is to give a new perspective for motivational theory as well as enrich the factors of job performance.

II. LITERATURE REVIEW

Intrinsic motivation is an example of autonomous motivation. When people engage an activity because they find it interesting, they are doing the activity wholly volitionally (e.g., I work because it is fun) (Gagne and Deci, 2005). Amabile (1996) indicated that positive reaction shown through intrinsic motivation such as interest, excitement, curiosity, challenge, and satisfaction.

Janssen et al (2004) stated that innovative work behavior is one of behaviors shown at work such as through generate, promote, and apply novel ideas. Drawing on West and Farr (1989), innovative behavior refers to an employee's intentional introduction or application of new ideas, products, processes, and procedures to his or her work role, work unit, or organization.

Innovative work behavior found in people who actively seek solutions of problems or needs of other people through innovative and novel ideas as well as a person who realizes that trends evolve and needs creative thinking and its application De Jong & Den Hartog (2007). Carmeli et al (2006) indicated that in fact teachers' innovative behavior are shown in order to trigger new ideas that could potentially help them in solving problems they find during teaching process, as well as improve their performance, or contribute to solve organization's problems.

Employee performance is the achievement of goals by employees and their relationship to organizational norms (Imran et al., 2012). Performance dimensions for university teaching staff (Arreola, 200; Franzen, 2003; Hill, Lomas & McGregor, 2003;

Sinclair & Johnson, 2000; Spitzer, 2007, White, 2008;) among others: communication, interpersonal skills, leadership, self-development, management, commitment to quality, student orientation and related parties, innovation and creativity, decision results, assessment, research, examination of material, professional relations, student assessment, organizational expertise, listening skills, project management, authenticity, critical analytical skills, ability to challenge conventional views. Meanwhile, according to Robbins et al. (2007), dimensions for workforce performance: science, test procedures, student-teacher relations, organizational expertise, communication skills, subject relevance, and task functions.

A. Hypothesis Development

I. Intrinsic motivation and innovative work behavior

Literature in motivation emphasizes the need for motivation in individual creative behavior (Rego, A, Sousa, F., Marques & Cunha, 2012). Amabile et al 1996 states that intrinsic motivation predicts creative behavior in the workplace and creativity gives innovation to occur. Innovation is the realization of creative thinking. However, to release creative and innovative ideas, freedom and autonomy are needed. The theory of self-determination (Gagne & Deci, 2005) shows that forms of autonomous motivation are shown through creativity. In fact, people who are more motivated are intrinsically more creative (Grant & Berry, 2011) because they tend to be more curious. Intrinsic motivation as a base for individual to who innovative actions at work (Amabile, 1988; Redmond, Mumford, & Teach, 1993). Therefore, intrinsic motivation to encourage innovative work behavior occurs which is confirmed by a study conducted by Devloo et al in 2013.

Hypotheses 1:

Intrinsic motivation affects innovative work behavior

II. Innovative work behavior and employee performance

Big stream of innovative work behavior studies has been done in organizational level (Bledow, Frese, Anderson, Miriam, & Farr, 2009; Hulsheger, Anderson, & Salgado, 2009). Innovation is one of important keys in organizational effectiveness (Janssen, Van De Vliert, & West, 2004). It is the next step of being creative at work (Scott & Bruce, 1994) which is including the implementation of the generated ideas. Demircioglu and Audretsch (2017) believe that it is important for organization to motivate the employees to improve their performance by being innovative and creative in production process. In addition, Wynen et al (2014) also pointed out through innovation high performance can be achieved.

Hypotheses 2:

Innovation affects employee performance

III. Intrinsic motivation-innovative work behavior-employee performance

Intrinsic motivation improves job performance by making the worker feels excited and happy about the work while at the same time achieve their self goals (Gagne & Deci, 2005). When a person feels joy completing their tasks, it is likely that they have autonomy, volition, and more choice in the work process, which leads to higher performance.

Amabile, 1996 and Woodman et al 1993 have found that intrinsic motivation leads to creativity of individuals at work. When a worker feels joy and happy while completing given tasks, they would find creative ways in doing it. Being creative is one of innovative behavior's types (Woodman et al., 1993).

Later on, Yuan and Woodman 2010 believe that people innovate at work in order to show their performance. Workers would expect positive performance when they know that being innovative at work is one of the sources. In their study, the relationship between innovative work behavior and job performance was examined by looking at how much innovative behavior is affected by the expectation of performing positive performance at work.

Hypotheses 3:

Innovative work behavior mediated the effect of intrinsic motivation to job performance.

Based on the literature, a research model was constructed as shown in Figure I.

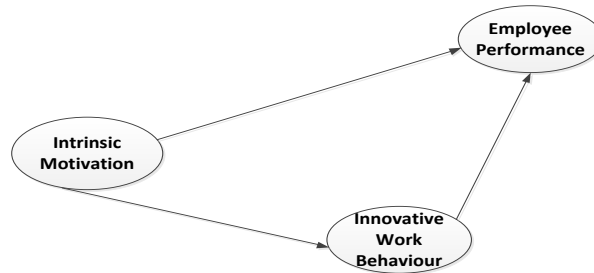


FIGURE I. PROPOSED RESEARCH MODEL

III. METHOD

This research is based on the approach of economics, especially management science, especially related to intrinsic motivation, innovative performance behavior and performance. This research is descriptive and verification. Descriptive research is research that aims to obtain a description of the variables under study while verification studies to determine the effect between variables through a hypothesis testing based on data in the field (Sekaran, 2007).

This study begins with a mapping of the literature related to the concept under study. Next, look for supporting data about teaching staff data by visiting a special website: <https://data.unsyiah.ac.id/index.php/dosen> to get data about teaching staff who will be the population of this study. The literature mapping results are used to write the research background. Data were analyzed using Structural Equation Modeling (SEM) method to produce a performance model of teaching staff at Syiah Kuala University.

A. Sample

The data used in this study are primary data and secondary data. Primary data comes from observations and survey results. Secondary data derived from the results of a literature review of the documents of previous research in the form of published scientific journals, textbooks, printed and electronic reports including websites. The unit of observation of this study was the teaching staff of Syiah Kuala University. The sample selection method to be used is cluster sampling. The main reason for using cluster sampling is economic cost efficiency and feasibility.

B. Measurement

The measurement variables are taken from previous studies and adapted to the situations of the characteristics of the sample. 5 questions of innovative work behavior were using measurement by Janssen, 2000 including “I create new ideas”, “I consider opportunity to innovate”, and “I like to find new methods, techniques, and instruments during work.”, 5 Intrinsic motivation questions were adapted from Alga et al, 2006 and Guay et al, 2000 including “My work is fun”, “I feel happy working on my job”, “I think my job is interesting.”. And the last job performance measurement was using 5 questions adapted from Podsakoff, Todor, and Skov, 1982 including “I am spending time effectively at work”, and “I am doing more work than is required.”

C. Analysis

The survey data is processed with the Structural Equation Modeling (SEM) program to analyze the relationships between variables in this study. Application of structural equation modeling in this study follows the steps Hair *et al.* (2010).

In accordance with the theoretical framework of the study, the analysis design was used to prove the influence of intrinsic motivation and innovative work behavior on the performance of teaching staff at Syiah Kuala University using the AMOS Structural Equation Modeling statistical tool.

The application of structural equation modeling follows the following steps (Hair et al., 1998; 2010), namely developing a theory-based model, forming a path diagram, converting a variety of paths into equations, selecting the type of input matrix and model assumptions, identifying models, evaluating estimates model and goodness-of-fit, and model interpretation and modification.

IV. FINDING AND DISCUSSION

A. Demographics

Respondents in this study were the teaching staff of Syiah Kuala University who were selected based on cluster sampling. The number of samples of this study was 200 people, but only 191 were valid and further testing could be carried out. Based on the age level, respondents who have the age range 30-40 years are dominant, namely 73 (36.5%), age 41-50 years 63 (36.5%) and age 52-62 years 53 (31.5%). By sex 102 (51%) were male and 98 (49%) were female. Based on the grade, 64 (32%) of respondents have pangkat/golongan penata muda Tk. I/IIIb, penata Tk I/IIIc 38(19%), Penata/IIIc 36 (18%), Pembina/IVa 28 (14%). The rest of the respondents have Pembina Tk I/IVb 18 (9%), Pembina Utama Muda/IVc 12 (6%), dan Pembinaan Utama Madya/IVd 4(2%).

Based on functional grade, lektor 81 (40.5%), asisten ahli 55 (27.5%), lektor kepala 52 (26%) dan guru besar 12 (6%). And lastly, based on education level, 126 (63%) was master degree and 74 (37%) doctorate degree. Master degree from Indonesia was 136 (68%) and from overseas 64 (32%). Doctorate in Indonesia was 51 (25.5%), Doctorate from overseas university is 30 (15%), and who have no doctorate degree was 119 (59.5%).

B. Measurement Model Goodness of Fit

The results of AMOS computation for the measurement model in the first stage have shown the loading factor value that has met the required standards and the goodness-of-fit index value has met the required cut-off value, evidenced by a good RMSEA index value (0.070), GFI (0.932), AGFI (0.889), CMIN-DF (1.933), TLI (0.955) and CFI (0.968). This value is within the expected range, so this model can be accepted.

C. Structural Equation Modeling Result

The second stage of SEM model testing is structural model testing. Model structural test results as shown in Figure II.

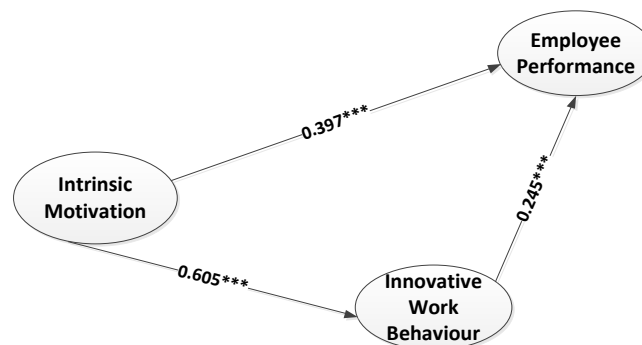


FIGURE II. RESULTS OF STRUCTURAL EQUATION MODELING

Based on the results of structural testing it is known that the model is fit with existing data. This is evidenced by the good RMSEA index values (0.070), GFI (0.932), AGFI (0.889), CMIN-DF (1.933), TLI (0.955) and CFI (0.968). This value is within the expected range, so this model can be accepted.

D. Causality test

Structural models are relationships between constructs that have causal relationships, thus there are independent and dependent variables. The relationship between these variables can be seen through the statistics coefficients from the AMOS calculation results as shown in Table I

TABLE I. PATH ANALYSIS REGRESSION WEIGHTS

			<i>Standardized Estimate</i>	<i>S.E.</i>	<i>C.R.</i>	<i>Prob.</i>
Innovative work behavior	<--	Intrinsic Motivation	0.605	0.115	6.917	0.00
Work performance	<--	Intrinsic Motivation	0.397	0.133	3.371	0.00
Work performance	<--	Innovative work Behavior	0.254	0.087	2.494	0.01

Source: Analysis Result, 2018

Table 2 shows the results of testing all the paths analysis. The test results show that there are two significant causal relationships, namely the influence of intrinsic motivation on innovative work behavior, the influence of the innovative work behaviour on performance, the influence of intrinsic motivation on performance both directly and through mediating influences. This is evidenced by the magnitude of the coefficient (standardized estimate) with the value of the critical ratio (C.R.) which is greater than 2.0 or the significance level of hypothesis testing smaller than 0.05.

E. Impact analysis among variables

Impact analysis is done to analyze the strength of the influence between constructs, namely direct influence and indirect influence. This test also shows the magnitude of the direct effect and the indirect influence of one variable on another variable (Ferdinand, 2014). Direct influence between variables in the path diagram as shown in Table 3.

TABLE II. DIRECT AND INDICTED IMPACT AMONG VARIABLES (STANDARDIZED DIRECT EFFECTS)

	<i>Intrinsic motivation</i>	<i>Innovative work behavior</i>
Innovative work behavior	0.605 ^{***} (0.000)	-
Work performance	0.397 ^{***} (0.000)	0.254 ^{***} (0.013)
Work performance (indirect effect)	0.154 ^{***} (0.018)	-

Source: Analysis Result, 2018

Based on Table III, it can be explained that the direct effects of the intrinsic motivation variable on the innovative work behavior variable is 0.605 with a probability value of 0.000 and a significance level of 0.01. Thus, it can be concluded that hypothesis 1 is proven. The effect of intrinsic motivation variable on performance is 0.397 with a probability value of 0.000 at a significance level of 0.01, hypothesis 2 is proven. The influence of the innovative work behavior variable on work performance is 0.254 with a probability value of 0.013 at a significance level of 0.01. Hypothesis 3 is proven.

TABLE III. SUMMARIZED OBSERVATION FROM MODEL ANALYSIS

No	<i>Path Analysis</i>	<i>Direct Effect</i>	<i>Indirect Effect</i>	<i>Explanation</i>
1	Intrinsic motivation → innovative work behaviour	0.605 ^{***} (0.000)	-	significant
2	Intrinsic motivation → work performance	0.397 ^{***} (0.000)	-	significant
3	Innovative work behaviour → work performance	0.254 ^{***} (0.013)	-	significant
4	Intrinsic motivation → innovative work behaviour → work performance	-	0.154 ^{***} (0.018)	Partially significant

Source: Analysis Result, 2018

V. CONCLUSION

The purpose of the research is to examine the effect of intrinsic motivation on innovative work behavior and performance, the effect of innovative work behavior on the performance and influence of the mediation of innovative work behavior on intrinsic motivation and the performance of the teaching staff.

The results showed that all hypothesized influences showed a significant influence on both hypotheses that tested direct effects and hypotheses that tested the influence of mediation.

Intrinsic motivation has a significant effect on innovative work behavior; the results of this study support the results of previous research by Zhang et al (2017) which states that intrinsic motivation has a significant effect on creativity. It is true that intrinsic motivation is the base of an individual showing their innovative actions during tasks completion. By being happy and joy at work, an individual would likely feel the freedom to create and try novel ideas or explore and implement more new ways or methods.

The result also indicates that intrinsic motivation has a significant effect on performance, the results of this study is supported by previous research conducted by Grant 2008 which linked the intrinsic motivation with pro-social fire and soon predicting the job performance at work. When a person feels that they have more freedom and excitement over their work, they tend to perform better at work. Whereas, when they feel less intrinsically motivated, they do not feel like want to give their best at work.

Innovative work behavior has a significant effect on performance, the results of this study is supported by previous study by Tierney and Farmer 2002 which stating that creative self-efficacy would lead to creative performance. Being innovative at work

would certainly help the individual to perform better with more efficient ways or methods. This behavior would eventually help the organization to have competitive advantage.

And lastly, innovative work behavior mediates the effect of intrinsic motivation on performance partially. This mediating effect has a little attention in this field. These findings indicate as novelty of this research. The more a person feels intrinsically motivated, the more they tend to act innovative which soon leads them to perform better at work.

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