

**THE INFLUENCE OF COMPETENCE, INNOVATION, MOTIVATION, AND JOB DESIGN ON
THE PERFORMANCE OF CONSTRUCTION EXPERTS WITH CAREER DEVELOPMENT
AS A MEDIATING VARIABLE IN WEST JAVA**

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Abstract

This study examines the influence of competence, innovation, motivation, and job design on the performance of construction experts, with career development as a mediating variable. The high rate of project delays, cost overruns, and declining quality highlights performance issues among construction experts in West Java. For this research, 140 experts affiliated with ASTEKINDO West Java were surveyed. SmartPLS 3.0 was employed to model Partial Least Squares-Structural Equation Modeling (PLS-SEM) for data analysis. The descriptive findings indicate that competence, innovation, motivation, job design, and career development fall within the “good to very good” category, although weaknesses remain in the dimensions of values, work targets, and career development opportunities. Hypothesis testing results show that innovation has a negative and insignificant effect on performance, while competence significantly influences career development. These findings underscore that improving the performance of construction experts requires a structured career development system, enhanced motivation, and adaptive job design.

Keywords: competence, innovation, motivation, job design, career development, performance.

INTRODUCTION

The construction industry is one of the strategic sectors that plays a vital role in national economic growth. The contribution is not only seen in the development of physical infrastructure, but also in the creation of jobs, increasing regional competitiveness, and strengthening inter-regional connectivity. In the last five years, the construction sector in Indonesia has experienced significant growth, even amid global challenges such as the Covid-19 pandemic, fluctuations in raw material prices, and changes in government policy.

West Java Province, as one of the regions with the highest urbanization rates in Indonesia, has become a center for construction projects, both those sourced from the

central and regional government budgets. Based on data from the Ministry of Public Works and Public Housing (2023), there are more than 350 strategic construction projects in West Java, covering the construction of roads, bridges, office buildings, and other public facilities. However, the growth of these projects has not always been accompanied by optimal performance, particularly in terms of human resource management, which is a key determinant of project success.

Construction plays an important role in national development. However, many challenges arise during project implementation. According to the Ministry of Public Works and Public Housing (PUPR, 2023), around 34% of construction projects in West Java experienced delays, 22% experienced cost overruns, and 15% experienced a decline in work quality.

Meanwhile, the number of workers involved in construction has declined. Data from the West Java BPS (2020) shows that the number of permanent and contract workers fell to 101,000, down 1.61% compared to 2019. The number of daily casual workers fell to 143 million working days, down 11.15% compared to the previous year. This decline occurred despite the strategic infrastructure projects in West Java increase more than 350 in 2023.

This phenomenon signals a major problem in human resource management in the construction industry. Technical errors often occur due to incompetence. Declining motivation reduces productivity. Innovation, if it is not supported by organizational systems will create new complexities. Moreover, rigid job designs hinder work effectiveness and coordination. On the other hand, the absence of a structured career development system leads to a lack of loyalty and long-term commitment.

Previous research findings show inconsistent results, Saks, A. M. (2019) found that competence and motivation have a positive but insignificant effect on employee performance, while Xue, H., Luo, Y., Luan, Y., & Wang, N. (2022) proved that the effect is positive and significant. In the context of innovation, Ozorhon's (2020) research states that innovation, in this case Kurnia Sari's adoption of a BIM-centric ecosystem, has a significant contribution to project performance, while the study by Sari, D. K., Yudianto, A., & Sinambela, F. C. (2021) found that the influence of innovation is insignificant if it is not accompanied by organizational support. Similarly, on the work design variable, Grant & Parker (2009) emphasized the effectiveness of work design in improving performance, but the study by Vîrgă, D., Iliescu, D., & Rusu, A. (2019) found that its influence was weak in the construction sector if it was not integrated with training and career development. These differing results indicate the need for further research considering career development as a mediating variable that can bridge the influence of these four variables on performance.

Therefore, few studies have examined the relationship between these variables and performance, especially with career development as a mediating variable. This study aims to fill this gap.

RESEARCH METHOD

This study uses a quantitative approach with a cross-sectional survey design to test the causal relationship between independent variables (Competence, Innovation, Motivation, and Job Design) and dependent variables (Construction Expert Performance) mediated by Career Development.

The focus of the study was on construction experts registered with ASTEKINDO West Java. By using purposive sampling with 140 respondents selected. The research instrument consisted of a Likert-scale questionnaire (1 = strongly disagree to 5 = strongly agree)

This design was chosen because it allows simultaneous measurement of latent variables through structured questionnaires and comprehensive testing of structural models using Partial Least Squares Structural Equation Modeling (PLS-SEM) (Hair, Hult, Ringle, & Sarstedt, 2021).

RESULT AND DISCUSSION

Result

Respondent Characteristic by Gender

Tabel 1. Respondent Characteristic Based on Gender

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	119	85
	Female	21	15
Total respondents		140	100

Source: Processed Data, 2025

The table above shows that the majority of respondents were male, with 119 respondents (85%), while 21 respondents were female (15%). The distribution of respondents based on gender shows that the construction sector in West Java is still dominated by male workers. This dominance is in line with the characteristics of construction work, which tends to require physical strength, endurance in the field, and technical skills that are traditionally more commonly possessed by male workers.

Respondent Characteristic by Age

Tabel 2. Respondent Characteristic Based on Gender

Age	Frequency (n)	Percentage (%)
≥ 20 Years	11	7,86
≥ 25 - 30 Years	84	60
≥ 30 - 35 Years	34	24,29
≥ 35 - 40 Years	7	5
> 40 Years	4	2.86

Total respondents	140	100
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Source: Processed Data, 2025

Based on Table 2, the largest proportion of respondents (60%) were aged 25–30 years, followed by those aged 30–35 years (24.29%), 20–25 years (7.86%), 35–40 years (5%), and over 40 years (2.86%).

Respondent Characteristic by Job Position

Tabel 3. Respondent Characteristic Based on Job Position

Job Position	Frequency (n)	Percentage (%)
Staff/Implementer	55	39,29
Junior Expert	39	27,86
Intermediate Expert	37	26,43
Senior Expert	9	6,43
Total respondents	140	100

Source: Processed Data, 2025

Table 3 presents the distribution of respondents based on their job positions. The data indicate that the majority of respondents are categorized as Staff/Implementers (39.29%), followed by Junior Experts (27.86%) and Intermediate Experts (26.43%). Only a small proportion of respondents, namely 6.43%, are classified as Senior Experts. These findings suggest that most of the respondents occupy lower-to mid-level positions within the organizational structure.

Respondent Characteristic by Education

Tabel 4. Respondent Characteristic Based on Education

Education Level	Frequency (n)	Percentage (%)
Bachelor/Master (S1/S2)	77	55
Diploma (D3)	8	5,71
Senior / Vocational High School (SMA/SMK)	55	39,29
Total respondents	140	100

Source: Processed Data, 2025

Table 4 presents the distribution of respondents based on their educational background. The majority of respondents hold a Bachelor's or Master's degree (55.00%), followed by those with a Senior/Vocational High School education (39.29%), While a small proportion hold a Diploma degree (5.71%). These findings indicate that most respondents have attained higher education qualifications.

Respondent Characteristic By Income

Tabel 5. Respondent Characteristic Based on Income

Income Level	Frequency (n)	Percentage (%)
≤ IDR 5 million	55	39,29
IDR 5-10 million	8	5,71
≥ IDR 10 million	77	55
Total respondents	140	100

Source: Processed Data, 2025

Table 4.5 illustrates the distribution of respondents based on their income levels. More than half of the respondents earn ≥ IDR 10 million (55.00%), followed by those with an income of ≤ IDR 5 million (39.29%), while a small proportion of respondents (5.71%) fall into the IDR 5-10 million income category. These findings suggest that the majority of respondents have relatively high income levels.

Outer Model Measurement Model

The validity test in this study was conducted to determine the validity of the research instrument in accordance with the established variable indicators. A questionnaire is considered valid if it is able to accurately measure the values of the variables under study. In this validity test, the data are considered valid if the factor loading value of each indicator is > 0.7, indicating that all indicators of each variable are valid. The following table shows the validity test result:

Tabel 6. Validity Test Result

Variables	Item	Loading Factor Value	Description
Competence	X1.1	0.837	Valid
	X1.2	0.866	Valid
	X1.3	0.853	Valid
	X1.4	0.806	Valid
	X1.5	0.909	Valid
	X1.6	0.903	Valid
Innovation	X2.1	0.856	Valid
	X2.2	0.866	Valid
	X2.3	0.869	Valid
	X2.4	0.877	Valid
	X2.5	0.718	Valid
Motivation	X3.1	0.802	Valid
	X3.2	0.849	Valid
	X3.3	0.874	Valid

	X3.4	0.847	Valid
	X3.5	0.856	Valid
Job Design	X4.1	0.870	Valid
	X4.2	0.910	Valid
	X4.3	0.885	Valid
Career Development	Z1	0.709	Valid
	Z2	0.733	Valid
	Z3	0.772	Valid
	Z4	0.803	Valid
	Z5	0.816	Valid
	Z6	0.841	Valid
	Z7	0.783	Valid
Performance	Y1	0.800	Valid
	Y2	0.904	Valid
	Y3	0.877	Valid
	Y4	0.814	Valid

Source: Processed Data Using SmartPLS, 2025

From the table above, it can be seen that the validity test results for all question items in each variable according to the questionnaire related to the variables of Competence (X1), Innovation (X2), Motivation (X3), Job Design (X4), Career Development (Z), and Performance (Y) indicate that all factor loading values are greater than the threshold of 0.70. Therefore, it can be concluded that these variables are valid and can be used for subsequent analyses.

Reliability Test

Reliability test in this study was measured by using Cronbach's alpha. Data is considered reliable if the Cronbach's alpha value is > 0.60 . Conversely, data is considered unreliable if the Cronbach's alpha value is < 0.60 . The results of the reliability test can be seen in the following table:

Tabel 7. Reability Test Result

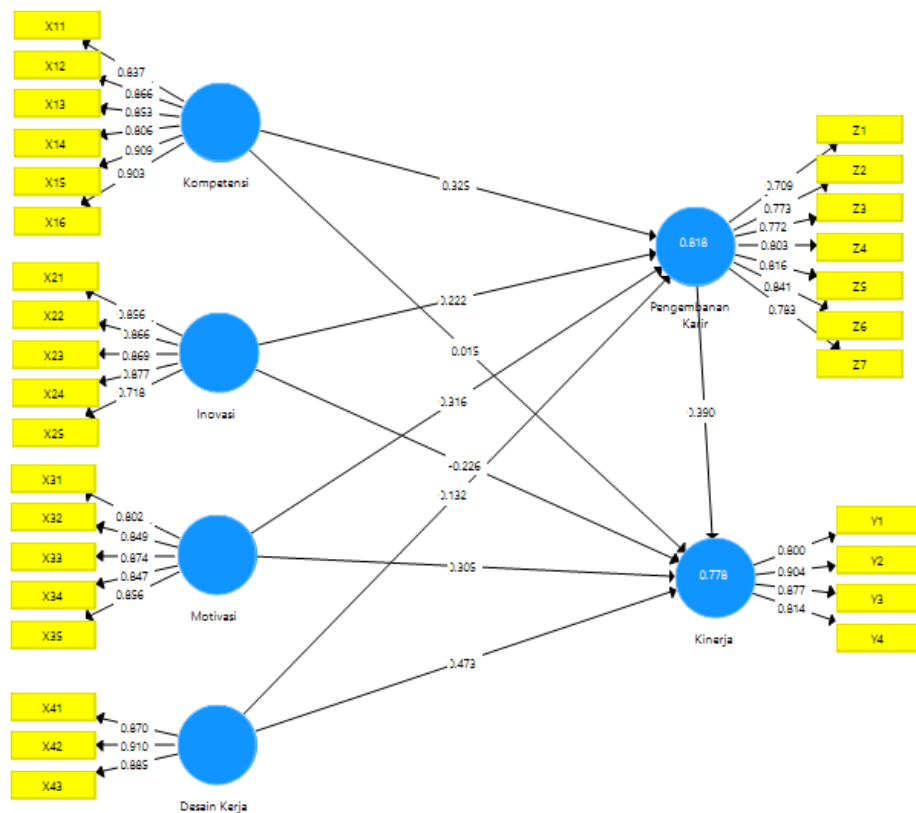
Variables	Cronbach's Alpha	Critical Value	Information
Competence	0.931	0.70	Reliable
Innovation	0.893	0.70	Reliable
Motivation	0.901	0.70	Reliable
Job Design	0.867	0.70	Reliable
Career Development	0.897	0.70	Reliable
Performance	0.870	0.70	Reliable

Source: Processed Data Using SmartPLS, 2025

CONSTRUCT ANALYSIS RESULTS (MEASUREMENT MODEL)

The construct of the analysis results using path analysis techniques (part analysis) as well as the evaluation of indicators through validity and reliability tests that show the causal relationship or direct influence of each variable according to the problem and hypothesis, as well as the indirect influence of the variables where the indirect influence of the Competence (X1), Innovation (X2), Motivation (X3), Job Design (X4), on Performance (Y) is mediated by the Career Development Variable (Z). The test results based on the construction model of this study according to the research variables are as follows:

Figure 1. Research Variable Construct Equation Model



Based on the construct model, the structure of influence and relationships can be explained. It can be explained that for the competency variable (X1) 6 statements were used, for innovation (X2) 5 statements were used, for motivation (X3) 5 questions were used, for job design (X4) 3 questions were used, for performance (Y1) 4 statements were used, and for the career development variable (Z1) as a mediating variable 7 statements were used.

Descriptive Analysis Results

1. The average score for competence is 4.0702, which falls into the “good to very good” category. The highest dimension is interest (4.1571), while the lowest is values (3.8714).
2. The average score for innovation is 4.1729. The highest dimension is observability (4.2714), and the lowest is relative advantage (4.0929).
3. The average score for motivation is 4.2200. The highest dimension is esteem needs (4.4214), while the lowest is physiological needs (3.9857).
4. The average score for job design is 4.0816. The highest dimension is job enlargement (4.1643), while the lowest is job rotation (4.0071).
5. The average score for career development is 4.1939. The highest dimension is work achievement (4.2857), while the lowest is growth opportunities (3.9071).
6. The average score for performance is 3.9375. The highest dimension is consistency (4.2286), while the lowest is work targets (3.7357).

Discussion

The descriptive analysis shows that the most research variables fall into the “good to very good” category. However, several weaknesses remain, such as the lowest scores on the values dimension (competence), work targets (performance), and growth opportunities (career development). These findings suggest that while construction experts possess strong technical competence, interest, and motivation, aspects such as professional values, target achievement, and career opportunities remain problematic.

The hypothesis testing results provide further insights:

1. Competence does not directly affect performance but has a significant influence on career development. This aligns with the descriptive results showing high scores for “interest” but low scores for “values,” indicating that competence plays a greater role in opening career opportunities rather than directly enhancing performance.
2. Innovation has a negative effect on performance, implying that poorly managed innovation can hinder project target achievement.
3. Motivation significantly influences both performance and career development, consistent with the descriptive results showing high “esteem needs.” Appreciation and recognition are proven to strongly affect performance.
4. Job design significantly impacts both performance and career development. The descriptive findings highlight that task variation (job enlargement) is relatively strong, contributing to the performance of construction experts.
5. Career development is confirmed as a key mediating factor. The low score on the “growth opportunities” dimension shows that although career development

positively influences performance, there are still constraints in providing opportunities for self-development.

From a practical perspective, construction companies must strengthen merit-based career systems, improve adaptive job design, and foster a systematically managed innovation culture to prevent productivity decline.

CONCLUSION

This study concludes that:

1. The competence of construction experts is at a good level, yet it contributes more significantly to career development than directly to performance.
2. Innovation, while generally in the good category, negatively affects performance when it is not properly managed.
3. Motivation is at a high level and has a proven significant impact on both performance and career development.
4. Job design plays an important role in enhancing performance and career development, particularly through effective job variation.
5. Career development serves as a critical mediating variable in the relationships among competence, motivation, job design, and performance.

PRACTICAL IMPLICATIONS

1. Construction companies need to establish a merit-based career development system.
2. Increase motivation through appreciation, compensation, and recognition.
3. Develop flexible job designs to address project complexity.
4. Manage innovation with organizational support to prevent counterproductive outcomes.

THEORETICAL IMPLICATIONS

This study reinforces the importance of career development as a mediating factor in the performance model of construction experts, while also highlighting the unique finding that innovation may negatively impact performance if it is not properly managed.

LIMITATIONS AND FUTURE RESEARCH

This research is limited to the West Java context. Future studies are recommended to broaden the geographical scope, include moderating variables such as organizational culture and leadership, and explore external factors such as regulations and the construction industry market.

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