

# Determinant Factors for Innovation Project Management on Project Performance

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## Abstract

Every construction service provider and construction service users always expect that the project they are working on can be completed properly and can meet the final project objectives. Thus, it is necessary to know the factors that influence the increase in project performance. Therefore, this study aims to determine the factors that can improve project performance so that it can run optimally. This study uses quantitative research methods by giving questionnaires to real estate workers (properties) in the city of Yogyakarta in order to obtain as many as 105 respondents. The analysis of this study is a Structural Equation Model (SEM) approach with the help of smart PLS. The results of this study indicate that the factors that influence project performance are innovation project management, job autonomy, and knowledge absorption and job autonomy, job insecurity, dan knowledge absorption are able to affect innovation project management. Therefore, every project management needs to consider these three aspects to maximize project performance.

## Keywords

Determinant Factors, Innovation Project Management, Project Performance.

## 1. Introduction

Every construction service provider and construction service user always expects that t, the working on can be completed properly and can meet the final project objectives (Oke et al.). The ultimate goal of the project is to get the maximum project performance, such as cost, quality, time, and work safety, by carrying out the stages of work, starting from preparation, planning, scheduling, implementation, and control that are more thorough and detailed (Ingle and Mahesh). Many things must be prepared, so that project performance during implementation is maintained properly, such as cost estimation, resource planning, work techniques and methods, risk management, project budget control and monitoring, quality control, work method planning, OHS management, environmental management , and other factors that affect project performance (Alaloul et al.).

The Central Statistics Agency (BPS) noted that Indonesian construction companies reached 203,403 business units. Construction companies are most widely spread on the island of Java, which is as many as 77,116 units. Java Island dominates the top four with the province having the largest construction companies. These provinces are East Java with 24,596 units, Central Java with 15,961 units, Jakarta with 14,505 units, and West Java with 12,884 units. Then, Banten is in eleventh place with a total of 7,270 units. However, Yogyakarta is in the sixth lowest place with 1,900 units. From this data it can be concluded that construction companies have a major influence on human life. The number of requests needs to be accompanied by good project performance. From dataindustri.com (2021) it is found that the performance of property industry companies in Indonesia has decreased from year to year. This is in accordance with media reports which state that throughout 2020, the performance of the *real estate* (property) industry experienced a positive growth of 2.32%. Although still showing positive and better performance than several other industrial sectors that experienced negative performance, the growth of the real estate industry in 2020 was still smaller than the growth of the real estate industry in 2019 and before.

*Project performance* is a setback in most developing countries and can be traced to poor utilization of project management best practices, project performance measures, and critical success factors affecting construction projects

(Unegbu et al.). The success of a project can be defined as the fulfillment of project requirements or a project is said to be successful if the results are better than expected than commonly observed in terms of cost, schedule, quality, safety, and satisfaction of the parties (Bond-Barnard et al.). Furthermore, the success of a project can be identified by measuring three main performance parameters, namely cost, time, and quality. These three parameters are known as the “*iron triangle*” and become a reference for the success of a project (Pollack et al.).

In a study conducted by (Khalid et al.) explained that the main problem with contractors in Dubai is carrying out construction work beyond work capacity and distributing some construction tasks to sub-contractors working on their behalf. The whole process creates a communication gap between developers, contractors and sub-contractors which results in project delays and only the developer is harmed. (Kabirifar and Mojtahedi), in their research states that scope, time, and cost are the three constraints of project management and are the main factors that affect project performance. Alaloul et al., (2020) explained that social factors have been identified as critical factors that have the greatest influence on the success of implementation, but other contributing factors indicate that these factors are related to each other and must be addressed simultaneously. The implementation of IR 4.0 in the Construction Industry will encourage industry performance to match their industrial counterparts such as the manufacturing and automotive industries. In the research of Yana et al. (2020) explained that there are factors that affect project performance by 94%, namely 1) quality, quantity, cost of labor, materials and project aids; 2) competence of the parties involved in the project; 3) pre-construction planning and project work preparation; 4) project control and communication system.

From the explanation above, it is stated that project management can affect project performance. Factors of *innovation project management* can affect the performance of construction projects (Ciric et al.). *Innovation project management* is needed differently based on the level of novelty, the more companies today, the more innovation in project management is needed (Jensen et al.). Project management innovation factors include *knowledge sharing, knowledge absorption, job insecurity, and job autonomy* (Ahmad & Karim, 2019). This study aims to determine the factors that can improve project performance so that it can run optimally. The researcher took the research theme “*Determinant Factors for Innovation Project Management on Project Performance*”.

## 2. Literature Review

### 2.1 Knowledge Sharing

*Knowledge sharing* is the exchange of information among organizational employees and can increase the willingness to publish among academics through scientific communication both at local and international levels (Ghabban et al.). The second key success factor that leads to creativity and innovation is *knowledge sharing*, which is the way employees get the most out of accumulated knowledge within the organization. Knowledge accumulation contributes to creativity and innovation and involves organizational culture and identity, policies, routines, systems, as well as other employees. Through the use of accumulated knowledge, knowledge sharing is positively related to ideas (Kremer et al.). *Knowledge sharing* is a method or one of the steps in knowledge management that are used to provide opportunities for members of a group, organization, agency, or company to share their knowledge, techniques, experiences, and ideas with other members (Al-Kurdi et al.). Some organizations have realized that to be able to compete in a rapidly growing market condition, requires the development of existing competencies and knowledge within the organization. The indicator of *Knowledge sharing* in this research is adopted from (Matzler et al.).

### 2.2 Knowledge Absorption

*Knowledge Absorption* is the power of the user to selectively absorb knowledge from other people or objects such as books or computers and store the acquired knowledge in the brain. *Absorptive Capability* is an organization that effectively uses external knowledge and the ability to adapt to changes in the external environment (Liu et al.). the indicator of *Knowledge Absorption* in this research is adopted from (Zonooz et al.).

### 2.3 Job Insecurity

*Job insecurity* is the uncertainty that accompanies a job that causes fear or insecurity about the consequences of the job, which includes the uncertainty of placement or uncertainty of salary issues as well as opportunities to get promotions or training. *Job insecurity* is when workers feel insecure when carrying out their duties and can cause tension at work (Ganson et al.). *Job insecurity* is the psychological condition of an employee showing confusion or feeling insecure due to changing environmental conditions. This condition arises because there are many types of work that are temporary or contract work. The more types of work with temporary or non-permanent durations, the

more employees experience *job insecurity* (Jung et al.). The indicator of Job Insecurity in this research is adopted from (Emberland and Rundmo).

## 2.4 Job Autonomy

*Job autonomy* refers to the freedom and independence that people have, in determining how to carry out their duties. *Job autonomy* is an employee's freedom, liberty, and happiness in determining the work they will do and then completing it correctly according to their overall motivation, willingness, dedication, and ability to achieve and complete the work assigned to them. *Job autonomy* is defined as the degree to which a job provides substantial freedom, independence, and discretion to individuals in scheduling work and in determining the procedures to be used in carrying it out. It has core characteristics such as skill variety, task identity, task significance, and job feedback. *Job autonomy* is expected to help employees recover their energy resources as individuals can freely use the knowledge and skills available to them without being controlled by others or limited by constraints. The freedom to determine their way of doing things increases employee motivation and self-determination (Vui-Yee and Yen-Hwa). The indicator of *Job autonomy* in this research is adopted from (Fida and Najam).

## 2.5 Innovation Project Management

Innovation is an option for a corporation in the face of market competition and sustainable management. (Massa and Testa) remark, *academics, and entrepreneurs, for example, may interpret innovation in a very dissimilar manner: while academics usually stress scientific novelty, for entrepreneurs, on the other hand, "innovation is anything that makes money."* (Jensen et al.) noted that three quarters were already known in national and international markets of the innovation companies were reported to have introduced. (Amara and Landry) emphasize the need to treat innovation differently based on its level of novelty because, as they note, more and more companies today can be labeled as innovative in several senses of the word. The indicator of Innovation Project Management is adopted from (Zubizarreta et al.).

## 2.6 Project Performance

To determine project success appropriately, several sets of criteria or principles are important to act as standards that guide or regulate the project's success. These standards are referred to as project success criteria or performance measures (Unegbu et al.). Project performance is how the scheme works by comparing the actual work results with the estimated workings of the work contract agreed by the owner and the implementation contractor (Zhu et al.). According to (Szatmari et al.), the most convenient standard for determining project success is the "iron triangle," which determines project success in terms of cost, time, and quality performance. The final goal of the project is not only limited to achieving profit. There are still many aspects that need to be considered by the contractor, such as the product produced by the contractor must be in accordance with the quality stated in the contract, the duration of the work according to the agreement in the contract, the OHS procedures on the site are running well, and environment around the project is maintained. Contractors who only pay attention to the financial side without paying attention to other aspects of project performance will only harm the *owner/user*. The mutualistic relationship between the *owner* and contractor will not be well established and sustainable. The indicator of project performance in this research is adopted form (Yeung et al., 2009 in (Unegbu et al.)).

## 2.7 Framework Thinking

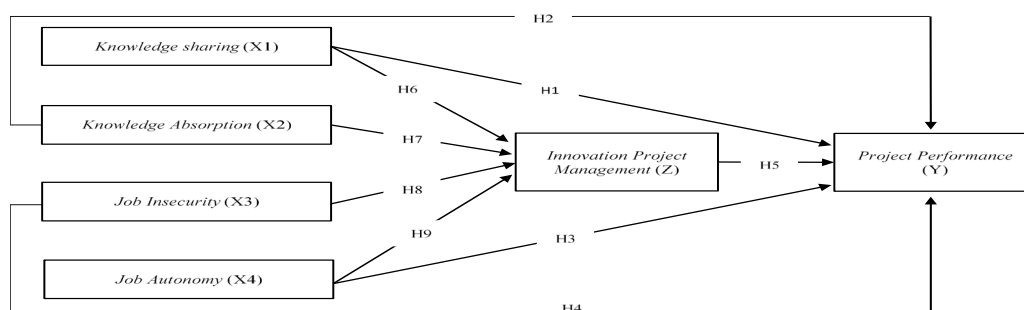


Figure 1. Framework Thinking

- H1: The Effect of *knowledge sharing* on *project performance*  
H2: The Effect of *knowledge absorption* on *project performance*  
H3: The Effect of *job insecurity* on *project performance*  
H4: The Effect of *job autonomy* on *project performance*  
H5: The Effect of *innovation project management* on *project performance*  
H6: The Effect of *knowledge sharing* on *innovation project management*  
H7: The Effect of *knowledge absorption* on *innovation project management*  
H8: The Effect of *job insecurity* on *innovation project management*  
H9: The Effect of *job autonomy* on *innovation project management*  
H10: The effect of *knowledge sharing* on *project performance* is mediated by *innovation project management*  
H11: The effect of *knowledge absorption* on *project performance* is mediated by *innovation project management*  
H12: The effect of *job insecurity* on *project performance* mediated by *innovation project management*  
H13: The Effect of *job autonomy* on *project performance* mediated by *innovation project management* (Figure 1)

### 3. Methods

Quantitative techniques were used in this study. The purpose of quantitative studies is to test known hypotheses. This method uses the numbers generated from measurements made with a questionnaire on the study variables. In this study, the researcher provides a questionnaire to the *real estate* worker in the city of Yogyakarta of which there were 105 respondents. The analysis of this study is a *Structural Equation Model* (SEM) with the help of smart PLS (Ghozali)). SEM is a multivariate analysis technique that is useful for analyzing the pattern of relationships between variables and their indicators variables, as well as direct measurement errors for a comprehensive model picture. The instrument test of this research use Validity and reliability tests, R-square test, and hypothesis test.

### 4. Results

#### 4.1 Validity Test

Based on the validity tests (Table 1) carried out in this study, it can be concluded that all question items in the questionnaire are valid because all items have a convergent validity score  $> 0.7$  and a score of AVE  $> 0.5$ .

Table 1. Validity Test Results

Variable	Instrument Code	Outer Loading	AVE	Information
<i>Sharing Knowledge</i> (X1)	X1.1	0.892	0.707	Valid
	X1.2	0.878		Valid
	X1.3 0.804	Valid		X1.4
	0.783	Valid		Knowledge
<i>Absorption</i> (X2)	X2 .1	0.832	0.669	Valid
	X2.2	0.813		Valid
	X2.3	0.809		Valid
<i>Job Insecurity</i> (X3)	X3.1 0.833	0.724	Valid	X3.2
	0.884	Valid		X3.3
	0.834	Valid		Job
<i>Autonomy</i> (X4)	X4.1	0.774	0.597	Valid
	X4.2	0.766		Valid
	X4.3	0.802		Valid
	X4.4	0.812		Valid
	X4.5	0.751		Valid
	X4.6	0.711		Valid
	X4.7	0.787		Valid

<b>Project Performance (Y)</b>	Y1	0.710	0.594	Valid
	Y2	0.823		Valid
	Y3	0.745		Valid
	Y4	0.799		Valid
<b>Innovation Project Management (Z)</b>	Z2.1	0.742	0.593	Valid
	Z2.2	0.755		Valid
	Z2.3	0.760		Valid
	Z2.4	0.775		Valid
	Z2.5	0.841		Valid
	Z2.6	0.778		Valid
	Z2.7	0.732		Valid

### Reliability Test

Based on test results reliability (Table 2) that was carried out in this study, it can be concluded that all instruments are reliable because all items have a Cronbach's alpha score > 0.7.

Table 2. Reliability Test Results

	Cronbach's Alpha	Composite Reliability
<i>Knowledge Sharing (X1)</i>	0.860	0.860
<i>Knowledge Absorption (X2)</i>	0.753 0.859	Job
<i>Insecurity (X3)</i>	0.809	0.887
<i>Job Autonomy (X4)</i>	0.887	0.912
<i>Project Performance (Y)</i>	0.771	0.771
<i>Innovation Project Management (Z)</i>	0.885	0.910

### R-Square Test

Based on the results of the R-square test in this study (Table 3), it describes that the innovation variable project management is explained by knowledge sharing, knowledge absorption, job insecurity, and job autonomy by 79.3%, while 20.7% is explained by other variables not included in this study. In addition, the project performance variable is explained by knowledge sharing, knowledge absorption, job insecurity, and job autonomy by 66.9%, while 33.1% is explained by other variables not included in this study.

Table 3. R-Square Test Results R

	-	Square Adjusted
<i>Innovation Project Management (Z)</i>	0.793	0.784
<i>Project Performance (Y)</i>	0.669	0.652

### Hypothesis Testing (Table 4)

Table 4. Hypothesis Results

	Original Sample (O)	T-Statistics (O/STDEV)	P-Values
Innovation Project Management (Z) -> Project Performance (Y)	0.459	3.476	0.001

Job Autonomy (X4) -> Innovation Project Management (Z)	0.250	3.107	0.002
Job Autonomy (X4) -> Project Performance (Y)	0.273	2.606	0.009
Job Insecurity (X3) -> Innovation Project Management (Z)	0.259	2.900	0.004
Job Insecurity (X3) -> Project Performance (Y)	0.138	1.483	0.139
Knowledge Absorption (X2) -> Innovation Project Management (Z)	0.265	3.121	0.002
Knowledge Absorption (X2) -> Project Performance (Y)	0.364	2.811	0.005
Knowledge sharing (X1) -> Innovation Project Management (Z)	0.239	2.191	0.029
Knowledge sharing (X1) -> Project Performance (Y)	0.086	0.746	0.456
Job Autonomy (X4) -> Innovation Project Management (Z) -> Project Performance (Y)	0.115	2,541	0.011
Job Insecurity (X3) -> Innovation Project Management (Z) -> Project Performance (Y)	0.119	2.221	0.027
Knowledge Absorption (X2) -> Innovation Project Management (Z) -> Project Performance (Y)	0.122	2.260	0.024
Knowledge sharing (X1) -> Innovation Project Management (Z) -> Project Performance (Y)	0.110	1.753	0.080

## 5. Discussion

### 5.1 Effect of knowledge sharing on project performance

Results of hypothesis testing knowledge sharing on projects performance (Table 4) obtained a positive beta score ( $p=0.086$ ) with t-statistics of ( $p>1.96$ ) and p-values of 0.456 ( $p>0.05$ ) indicating that there is no relationship between knowledge sharing and project performance. This result means there is no need for knowledge sharing to improve project performance. This study rejects the research results from (Hewitt et al.), which state that knowledge sharing improves project performance. A project is a series of tasks directed towards a major outcome. The project combines several resources collected in a temporary organizational container to achieve certain goals or targets. On projects of huge size and complexity, involving many organizations plus many interrelated activities, coordination and communication difficulties will arise. The same difficulty can also arise because of the complexity of defining the project organizational structure made by the planner. Indeed, the project leader needs to provide information related to the project, so it runs well. However, according to the results of this study, workers don't need to share their knowledge regarding the project.

### 5.2 Effect of knowledge absorption on project performance

The results of hypothesis testing on the effect of knowledge absorption on project performance obtained a positive beta score ( $p=0.364$ ) with t-statistics of 2.811 ( $p>1.96$ ) and p values of 0.005 ( $p<0.05$ ) indicating a significant relationship and positive relationship between knowledge absorption and project performance. This means that the higher the knowledge absorption, the higher the project performance. This research is in line with (Hwang et al.), which state that knowledge absorption affects project performance. At the project planning stage, a manager has planned and designed various project management processes, such as how much the project will cost to the timeframe required to complete the project. If you want to see the performance of a project, then look at the finances and time of the project. When the costs incurred exceed the planned costs, the project's performance can be said to be bad, as well as the schedule/time if it exceeds what was planned. In addition, it is necessary to have strong knowledge of each project actor so that the project can run well. Therefore, every project actor must absorb every knowledge about the project. So, according to the results of this study, knowledge absorption is proven to improve project performance.

### 5.3 The effect of job insecurity on project performance

The results of hypothesis testing the effect of job insecurity on project performance obtained a positive beta score ( $p=0.138$ ) with t-statistics of 1.483 ( $p<1.96$ ) and p values of 0.139 ( $p>0.05$ ) indicating that there was no effect between job insecurity of project performance. This means there is no need for job insecurity to improve project performance. The results of this study reject the research of (Chih et al.), which shows the existence of job security on project performance. Job insecurity is the uncertainty accompanying a job that causes fear or insecurity about the job's consequences, including the uncertainty of placement or salary issues and opportunities for promotion or training. This situation is where workers feel insecure when carrying out their duties and can cause tension at work. However,

based on the results of this study, it can be shown that the job insecurity experienced by project workers or actors cannot affect whether or not project performance increases. This can be due to the professional value possessed by the workers or project actors to maximize the project performance that has been carried out

#### ***5.4 Effect of job autonomy on project performance***

The results of hypothesis testing on the effect of job autonomy on project performance obtained a positive beta score ( $p=0.273$ ) with t-statistics of 2.606 ( $p>1.96$ ) and p values of 0.009 ( $p<0.05$ ) indicating a positive and significant effect between job autonomy and project performance. This means that the higher the job autonomy, the higher the project performance. Job autonomy refers to people's freedom and independence in determining how to carry out their duties. In addition, job autonomy is defined as the extent to which the job provides substantial freedom, independence, and discretion for individuals in scheduling work and in determining the procedures that must be used in carrying it out. It has core characteristics such as skill variety, task identity, task significance, and job feedback. Thus, it is necessary to increase job autonomy to improve project performance.

#### ***5.5 The effect of innovation project management on project performance***

The results of hypothesis testing the effect of innovation project management on project performance obtained a positive beta score ( $p=0.459$ ) with t-statistics of 3.476 ( $p>1.96$ ) and p values of 0.001 ( $p<0.05$ ) indicating a significant relationship. significant and positive between innovation project management and project performance. This means that the higher the innovation project management, the higher the project performance. In managing a project, project performance is always associated with the manager's decision-making process to achieve a goal that meets management principles, so it is necessary to allocate available resources to be carried out effectively and efficiently. Therefore, in understanding the meaning of proper project management, it is necessary to know what, why, when, where, who, and how (what, why, when, where, who, and how) management. When innovation project management can be carried out properly, project performance will also be maximized.

***5.6 Effect of knowledge sharing on innovation project management*** the results of hypothesis testing on the effect of knowledge sharing on innovation project management obtained a positive beta score ( $p=0.239$ ) with t-statistics of 2.191 ( $p>1.96$ ) and p-values of 0.029 ( $p<0.05$ ) indicating a relationship significant and positive relationship between knowledge sharing and innovation project management. This means that the higher the job autonomy, the higher the project performance. The results of this study are in accordance with research conducted by Zheng et al., (2017), which states that knowledge sharing is proven to improve project management innovation. Project management is a business that includes planning, organizing, directing, coordinating, and supervising the activities of a project in such a way that it fits within a predetermined schedule and budget. Project management includes planning, organizing, leading, and controlling company resources to achieve predetermined short-term goals. The success of large projects increasingly requires better management. Not only for the builders and subcontractors but also for all the resources involved. Project actors from several contracting companies are often brought together to do one type of work at a time, so knowledge sharing between project actors will improve project management innovation.

#### ***5.7 Effect of knowledge absorption on innovation project management***

The results of hypothesis testing on the effect of knowledge absorption on innovation project management obtained a positive beta score ( $p=0.265$ ) with t-statistics of 3.121 ( $p>1.96$ ) and p values of 0.002 ( $p<0.05$ ) indicating a significant relationship. Positive and significant between knowledge absorption towards innovation project management. Hal tersebut berarti menunjukkan semakin tinggi knowledge absorption, semakin tinggi pula innovation project performance. The results of this study are in accordance with research conducted by (Toshmali et al.), which states that knowledge absorption affects innovation process management. The main focus of project management is the achievement of the final project objectives with all available constraints, time, and funds. Its main purpose is to assist management in compiling a project's schedule, determining the total time used in completing a project, determining the activities/activities that need to be prioritized, and determining the costs required to complete a project. Everything is directed at the targets set and continues over time. Project management is no longer a specifically required management. In business, project management has become a standard way, a common part as more and more company ventures are worked on as projects. The importance and role of the project in the future will increasingly contribute to the company's strategic direction. Thus, innovation is needed to continue developing so that later innovation project management can become a strategic company.

### **5.8 Effect of job insecurity on innovation project management**

The results of testing the hypothesis of the effect of job insecurity on innovation project management obtained a positive beta score ( $p=0.259$ ) with t-statistics of 2.900 ( $p>1.96$ ) and p values of 0.004 ( $p<0.05$ ) indicating a positive and significant relationship between job insecurity and innovation project management. This means that the higher the job insecurity, the higher the innovation project performance. Project management functions as a process. Management will recognize a logical sequence of implementation, which illustrates that management actions are directed at achieving the goals that have been set because goal setting can be counted as the first management action, followed by planning, organizing and coordination, implementation (actuating) and supervision and also control with the utilization of available resources efficiently and effectively. With the various things in project management and innovations, some project actors experience job insecurity. Thus, the project manager needs to pay attention to each project actor's insecurity.

### **5.9 Effect of job autonomy on innovation project management**

The results of testing the hypothesis of the effect of job autonomy on innovation project management obtained a positive beta score ( $p=0.250$ ) with t-statistics of 3.107 ( $p>1.96$ ) and p-values of 0.002 ( $p<0.05$ ) indicating a positive and significant influence between job autonomy on innovation project management. This means that the higher the job autonomy, the higher the innovation project performance. In many cases or cases, individuals move from one project to the next, not just on one job. Unlike many organizational jobs segmented according to functional specificities, a project will essentially require a combined effort consisting of many different but continuous aspects. So, with job autonomy, innovation project management can increase and become more leveraged, according to the results of this study.

### **5.10 The effect of knowledge sharing on project performance is mediated by innovation project management.**

The results of hypothesis testing in the effect of knowledge sharing on project performance mediated by innovation project management obtained a positive beta score ( $p=0.110$ ) with t-statistics of 1.735 ( $p<1.96$ ) and p values of 0.080 ( $p>0.05$ ) indicating that innovation project management cannot mediate the relationship between knowledge sharing on project performance. The concept of innovation project management is widely used in both modern and earlier contexts of special-purpose management programs (especially, planning). Provision of organization and formation of comprehensive program and project target fulfillment is a complex of interrelated events aimed at achieving certain social and economic goals. An extensive system of projects and programs is implemented in the research and innovative fields. Innovation projects and programs to implement them are a basic part of establishing an economic mechanism for managing the research and technical development of the country. In the context of an unstable economic environment and limited financial resources, the implementation of innovation projects allows for the completion of tasks for the development and survival of the enterprise.

### **5.11 The effect of knowledge absorption on project performance is mediated by innovation project management**

The results of hypothesis testing the effect of knowledge absorption on project performance mediated by innovation project management obtained a positive beta score ( $p=0.122$ ) with t-statistics of 2.260 ( $p>1.96$ ) and p values of 0.024 ( $p<0.05$ ) indicating that innovation project management can mediate knowledge absorption on project performance. An important development in the project area is the expansion from an engineering view to a broader business and strategic perspective. In general, as a result of the recent reorientation, there is a need for research to provide the intellectual foundation to bring strategy and project management closer together. Projects may be the actions required to realize the intended strategy. The need to increase the link between project and strategy is highlighted by recent research. The development of this strategy in project management has two different implications. First is the need to introduce a strategic perspective into single project management.

### **5.12 The effect of job insecurity on project performance is mediated by innovation project management.**

The results of hypothesis testing the effect of job insecurity on project performance mediated by innovation project management obtained a positive beta score ( $p=0.119$ ) with t-statistics of 2.221 ( $p>1.96$ ) and p values of 0.0027 ( $p<0.05$ ), indicating that innovation project management can mediate job insecurity on project performance. Management innovation is generally thought of as generating and implementing meaningful new solutions regarding



the processes, rules, methods, and structures within an organization's management, which significantly impact how an organization's goals are pursued and potentially improve its long-term performance.

### **5.13 The effect of job autonomy on project performance is mediated by innovation project management**

The results of hypothesis testing the effect of job autonomy on project performance mediated by innovation project management obtained a positive beta score ( $p=0.115$ ) with t-statistics of 2,541 ( $p>1.96$ ) and p values of 0.011 ( $p<0.05$ ) indicating that innovation project management can mediate job autonomy on project performance.

In innovation, there is a difference between invention, the creation of new ideas, and innovation. Innovation sees where the broad way lies in process or technological change themes that create value for customers or organizations. The different innovations are more than mere changes. Innovation is a representation of the unsustainability of past conditions. This discontinuity is a characteristic that distinguishes innovation from change because change represents a fraction of the previous or current service configuration and/or professional ability. Innovation is the introduction of new elements into the organization's services in the form of new knowledge, new organizations, and new management or process skills. Change is a picture of a gradual change from the current condition, also known as a picture of continuity from the past.

## **6. Conclusion**

The results of this study indicate that (1) there is no relationship between knowledge sharing and project performance, (2) there is a significant and positive relationship between knowledge absorption and project performance, (3) there is no influence between job insecurity on project performance, (4) there is a positive and significant effect between job autonomy on project performance, (5) there is a significant and positive relationship between innovation project management and project performance, (6) there is a significant and positive relationship between knowledge sharing and innovation project management, (7) there is a positive and significant relationship between knowledge absorption and innovation project management, (8) there is a positive and significant relationship between job insecurity and innovation project management, (9) there is a positive and significant effect between job autonomy and innovation project management, (10) innovation project management can't mediate the relationship between knowledge sharing and project performance, (11) innovation project management can mediate knowledge absorption on project performance, (12) innovation project management can mediate job insecurity on project performance, and (13) innovation project management can mediate job autonomy on projects performance.

This shows that the factors that influence project performance are innovation project management, job autonomy, and knowledge absorption, and job autonomy, job insecurity, and knowledge absorption can influence innovation project management. Therefore, every project management needs to consider these three aspects to maximize project performance.

## **References**

- Al-Kurdi, Osama, et al. "Knowledge Sharing in Higher Education Institutions: A Systematic Review." *Journal of Enterprise Information Management*, 2018, doi:10.1108/JEIM-09-2017-0129.
- Alaloul, Wesam Salah, et al. "Industrial Revolution 4.0 in the Construction Industry: Challenges and Opportunities for Stakeholders." *Ain Shams Engineering Journal*, 2020, doi:10.1016/j.asej.2019.08.010.
- Amara, Nabil, and Réjean Landry. "Sources of Information as Determinants of Novelty of Innovation in Manufacturing Firms: Evidence from the 1999 Statistics Canada Innovation Survey." *Technovation*, 2005, doi:10.1016/S0166-4972(03)00113-5.
- Bond-Barnard, Taryn Jane, et al. "Linking Trust and Collaboration in Project Teams to Project Management Success." *International Journal of Managing Projects in Business*, 2018, doi:10.1108/IJMPB-06-2017-0068.
- Chih, Ying-Yi, et al. "Broken Promises: Implications for the Job Insecurity and Job Performance of Chinese Construction Workers." *Journal of Construction Engineering and Management*, 2017, doi:10.1061/(asce)co.1943-7862.0001244.
- Ciric, Danijela, et al. "Agile Project Management in New Product Development and Innovation Processes: Challenges and Benefits beyond Software Domain." *TEMS-ISIE 2018 - 1st Annual International Symposium on Innovation and Entrepreneurship of the IEEE Technology and Engineering Management Society*, 2018, doi:10.1109/TEMS-ISIE.2018.8478461.
- Emberland, J. S., and T. Rundmo. "Implications of Job Insecurity Perceptions and Job Insecurity Responses for Psychological Well-Being, Turnover Intentions and Reported Risk Behavior." *Safety Science*, 2010,

- doi:10.1016/j.ssci.2009.12.002.
- Fida, Muhammad Kashif, and Najma Najam. "Construction and Validation of Fida and Najam Job Autonomy Scale for Employees." *Pakistan Journal of Psychological Research*, 2019, doi:10.33824/PJPR.2019.34.3.28.
- Ganson, Kyle T., et al. "Job Insecurity and Symptoms of Anxiety and Depression among US Young Adults during COVID-19." *Journal of Adolescent Health*, vol. 68, no. 1, Elsevier, 2021, pp. 53–56.
- Ghabban, Fahad, et al. "New Model for Encouraging Academic Staff in Saudi Universities to Use IT for Knowledge Sharing to Improve Scholarly Publication Performance." *Technology in Society*, 2018, doi:10.1016/j.techsoc.2018.07.001.
- Ghozali. "Ghozali. Uji Koefisien Determinasi." *Journal of Management and Business*, 2018.
- Hewitt, Barbara, et al. "The Effect of Conflict and Knowledge Sharing on the Information Technology Project Team Performance." *International Journal of Knowledge Management*, 2020, doi:10.4018/IJKM.2020010101.
- Hwang, Sunil, et al. "Interorganizational Information Processing and the Contingency Effects of Buyer-Incurred Uncertainty in a Supplier's Component Development Project." *International Journal of Production Economics*, 2019, doi:10.1016/j.ijpe.2019.01.019.
- Ingle, Prachi Vinod, and Gangadhar Mahesh. "Construction Project Performance Areas for Indian Construction Projects." *International Journal of Construction Management*, 2020, doi:10.1080/15623599.2020.1721177.
- Jensen, Søren Højgaard, et al. "A Method to Separate Process Contributions in Impedance Spectra by Variation of Test Conditions." *Journal of The Electrochemical Society*, 2007, doi:10.1149/1.2790791.
- Jung, Hyo Sun, et al. "COVID-19: The Effects of Job Insecurity on the Job Engagement and Turnover Intent of Deluxe Hotel Employees and the Moderating Role of Generational Characteristics." *International Journal of Hospitality Management*, vol. 92, Elsevier, 2021, p. 102703.
- Kabirifar, Kamyar, and Mohammad Mojtahedi. "The Impact of Engineering, Procurement and Construction (EPC) Phases on Project Performance: A Case of Large-Scale Residential Construction Project." *Buildings*, 2019, doi:10.3390/buildings9010015.
- Khalid, Suhaib Salman, et al. "Problems and Factors Affecting Property Developers Performance in the Dubai Construction Industry." *International Journal of Scientific and Research Publications (IJSRP)*, 2018, doi:10.29322/ijssrp.8.11.2018.p8312.
- Kremer, Hannah, et al. "Innovation Leadership: Best-Practice Recommendations for Promoting Employee Creativity, Voice, and Knowledge Sharing." *Business Horizons*, vol. 62, no. 1, Elsevier, Jan. 2019, pp. 65–74, doi:10.1016/J.BUSHOR.2018.08.010.
- Liu, Si Meng, et al. "The Effects of Absorptive Capability and Innovative Culture on Innovation Performance: Evidence from Chinese High-Tech Firms." *Journal of Asian Finance, Economics and Business*, 2021, doi:10.13106/jafeb.2021.vol8.no3.1153.
- Massa, Silvia, and Stefania Testa. "Innovation and SMEs: Misaligned Perspectives and Goals among Entrepreneurs, Academics, and Policy Makers." *Technovation*, 2008, doi:10.1016/j.technovation.2008.01.002.
- Matzler, Kurt, et al. "Risk Aversion and Brand Loyalty: The Mediating Role of Brand Trust and Brand Affect." *Journal of Product and Brand Management*, 2008, doi:10.1108/10610420810875070.
- Oke, Ayodeji Emmanuel, et al. "Influence of the Internet of Things' Application on Construction Project Performance." *International Journal of Construction Management*, Taylor & Francis, 2020, pp. 1–11.
- Pollack, Julien, et al. "What Is the Iron Triangle, and How Has It Changed?" *International Journal of Managing Projects in Business*, 2018, doi:10.1108/IJMPB-09-2017-0107.
- Szatmari, Balazs, et al. "Great Successes and Great Failures: The Impact of Project Leader Status on Project Performance and Performance Extremeness." *Journal of Management Studies*, 2021, doi:10.1111/joms.12638.
- Toshmali, Gholamreza, et al. "Conceptualization of Entrepreneurial University and Pattern Design of Third Generation University." *Iran Occupational Health*, 2020.
- Unegbu, H. C. O., et al. "An Investigation of the Relationship between Project Performance Measures and Project Management Practices of Construction Projects for the Construction Industry in Nigeria." *Journal of King Saud University - Engineering Sciences*, 2022, doi:10.1016/j.jksues.2020.10.001.
- Vui-Yee, Koon, and Tee Yen-Hwa. "When Does Ostracism Lead to Turnover Intention? The Moderated Mediation Model of Job Stress and Job Autonomy." *IIMB Management Review*, 2020, doi:10.1016/j.iimb.2019.10.007.
- Zheng, Junwei, et al. "Impacts of Leadership on Project-Based Organizational Innovation Performance: The Mediator of Knowledge Sharing and Moderator of Social Capital." *Sustainability (Switzerland)*, 2017, doi:10.3390/su9101893.
- Zhu, Fangwei, et al. "Project Manager's Emotional Intelligence and Project Performance: The Mediating Role of Project Commitment." *International Journal of Project Management*, 2021, doi:10.1016/j.ijproman.2021.08.002.

Zonooz, Behrooz Hadi, et al. "The Relationship between Knowledge Transfer and Competitiveness in ' SMES ' with Emphasis on Absorptive Capacity and Combinative Capabilities." *International Business and Management*, 2011.

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