

1  
2  
3  
4  
5  
6  
7  
8  
9

# THE ROLE OF PROJECT MANAGER COMPETENCY IN CONSTRUCTION PROJECT SUCCESS : A SCOPING REVIEW PERSPECTIVE OF PT. MMS GROUP

## ABSTRACT

Previous literature reviews have explored the relationship between project manager competency and construction project success. The purpose of this scoping review is to map existing studies that assess the influence of project manager competency on construction project success. The main stages of the scoping review are: (1) identifying research questions; (2) identifying relevant studies; (3) selecting studies; (4) charting data, and (5) compiling, summarizing, and reporting results. Over a 10-year time span (2015-2024), the results of the scoping review indicate that most studies acknowledge that project manager competency influences construction project success. However, as has been claimed by Sonelma and Sucita (2022) that the project manager's competence does not affect the success of a construction project.

10  
11 *Keywords::Project manager competency, Construction project success, Scoping Review,*  
12 *Competency Framework*

## 1. INTRODUCTION

13  
14  
15  
16 A project is an activity carried out with limited resources and time to achieve predetermined  
17 goals. The series of activities consists of planning, designing, implementing construction and  
18 maintenance (Trisnawati, 2018). In a series of activities, the project should not be free from  
19 problems/constraints. Both in terms of cost, quality and time are three problems/constraints  
20 that are often encountered in projects and are generally often associated as a measure of  
21 project success, namely right cost, right quality and right time (Zulaecha, 2021).

22  
23 The success of a construction project is the result of the competence of the project manager  
24 and the maturity of the project management organization. Likewise, according to PMCDF -  
25 Second Edition, the success of a construction project is greatly influenced by the competence  
26 of the project manager (Zulaecha, 2021). The success of a project is influenced by how and  
27 who manages it. A project manager is someone who is appointed to be responsible for the  
28 daily activities of project management for the benefit of the organization (Brahma, et al. 2016).

29  
30 Sufa (2012) stated that a project manager is a person who is assigned to be responsible for  
31 project management activities for the benefit of the project organization. Under full authority,  
32 the project manager can be an intermediary between the project organization and the  
33 company, as well as coordination and communication between project owners. According to  
34 Marpaung (2014), the success of an organization depends on the leadership factor, leaders  
35 must play a role that can motivate subordinates and be full of initiative and wisdom in decision  
36 making. Riskawati (2021) stated the results of her research that leadership has a significant  
37 effect on job satisfaction, based on the results of the study it is known that leadership also has  
38 a significant effect on organizational effectiveness.

39  
40 PT. MMS Group Indonesia. A company that is a multinational company that is developing in  
41 the coal mining and trading sector which then expanded into the property sector and

42 sustainable businesses in accordance with the principles of Sustainable Development Goals  
43 (SDGs). In facing competition in the Property Industry in particular, the role of a leader is  
44 certainly a top priority. "One of the factors in achieving project success is influenced by the  
45 role of a project manager. To achieve project success, a reliable project manager is needed,  
46 who knows the scope of his duties as a project leader and has the required competency  
47 requirements. The competence of a project manager can be measured by three aspects,  
48 namely knowledge, skills and attitude" (Brahma, et al. 2016).

49  
50 Article 11 of Law of the Republic of Indonesia No. 18 of 1999 explains the responsibility of  
51 construction planners, construction implementers and construction supervisors for the results  
52 of their work. This responsibility is based on the principles of expertise according to scientific  
53 principles, compliance, and intellectual honesty in carrying out their profession while still  
54 prioritizing the public interest. MMS Group Indonesia (MMSGI) again wins award TOP CSR  
55 Awards with the Excellence or 5 star category. MMSGI also won the title of Top Leader on CSR  
56 Commitment 2023 which was given to Adri Martowardojo as the representative of MMSGI.  
57 This achievement is better than the previous year in the TOP CSR Awards 2022, at that time  
58 MMSGI won 4 stars or the Very Good category. From this predicate, of course, the role of  
59 leadership is needed so that a commitment is created to achieve both corporate responsibility  
60 and social responsibility outside the company. (mediaindonesia.com)

61  
62 From this form of responsibility, there needs to be commitment and also competence from  
63 project managers so that project success is achieved and does not result in project failure. For  
64 example, the case of the construction of the Badung Integrated Licensing Service Agency  
65 (BPPT) building did not show any project progress. The project worth billions of rupiah is still  
66 far from the target set by the Badung Public Works Agency. The target for completion of the  
67 BPPT project fell in mid-December 2014, but until now the target that has only been achieved  
68 is 67.04%. The failure to achieve the target was due to the division between workers and work  
69 being inefficient. Another case is the delay in the SD 17 Dauh Puri Denpasar project which  
70 was 20 percent late. The project that should have been completed according to the contract  
71 on November 20, 2014, but only reached 55% of the target of 75%. So the contractor's  
72 performance was considered very poor, this reflects how the project manager managed the  
73 project (Brahma, et al. 2016)

74  
75 "Project delays will have an impact on cost overruns, so this is where the role of a project  
76 manager is needed. As stated above, a project is said to be successful if the cost, time, and  
77 quality factors have been achieved. If one of them is not met, then the project is not yet  
78 considered successful" (Brahma, et al. 2016). "According to several previous research results  
79 that tested the influence of project manager competence on the success of construction  
80 projects conducted by Brahma", et al. (2016), Riskawati, et al. (2021), Prianto, et al. (2012),  
81 Imansyah, Dita (2022), Zulaecha et, al. (2021), concluded that there is a significant influence  
82 on project manager competence on project success.

83  
84 However, this is different from the research results of Sonelma and Sucita (2022), which stated  
85 that leadership skills and strategic business management do not influence the success of  
86 construction projects. There is a gap in this research so further research needs to be conducted  
87 on project manager competency towards project success. This research is expected to be an  
88 input to PT MMS Grup Indonesia in managing human resources regarding project manager  
89 competency and project success. And from an academic perspective, it is expected that the  
90 results of this study can be a reference and contribute to the development of human resource  
91 theory insights, especially regarding the relationship between project manager competency  
92 and project success.

93  
94  
95  
96  
97  
98  
99  
100  
101  
102  
103  
104  
105  
106  
107  
108  
109  
110  
111  
112  
113  
114  
115  
116  
117  
118  
119  
120  
121  
122

**2. METHODS**

“This research is a literature research or literature review, namely a research process that involves reviewing and critically evaluating existing literature sources. The main purpose of a literature review is to understand and describe the current state of research in the field related to the topic being studied” (Ferdiansyah, 2024). By conducting a literature review, researchers can find current knowledge, identify existing research gaps, and develop a strong theoretical basis for the research to be conducted.

**2.1 Identifying research questions**

Identifying research questions at the early stage of the research review, because by determining research questions, researchers can design a strategy for conducting a literature search by ensuring substantive areas with research topics. The research question is How is the existing literature on the relevance of project manager competency and project success?

**2.2. Identifying relevant studies**

The data in this study are secondary data in the form of previous research results related to project manager competency and project success obtained through online searches of national and international scientific journals. The criteria for journals to be reviewed are research journal articles with the subject of companies that examine project manager competency and project success in various countries. The criteria used in the literature search process are illustrated in Table 1 regarding, the time period used is 15 years, from 2009 to 2024. The 15-year time span is considered sufficient to trace the relevance of competitive advantage research. The type of publication selected is an empirical article that has been published in English. The geographical area is not limited to certain countries. All empirical studies from various countries are included in the criteria as long as they meet the other criteria mentioned previously.

Table 1 Inclusion Criteria

Criteria	Inclusion	
Period	2010-2024	15 years of observation
Language Types	Indonesian and English	Some articles are in English
Publication Type	Journal Articles	Empirical Articles
Geographical Area	All	Findings from all countries

**2.3 Study Selection**

The results of searching three electronic databases using Google Scholar and Scopus. These articles were then examined to determine their suitability to the research question. The articles were also examined to find possible duplicate articles in different databases. Most of the articles that did not match the research question were because they did not discuss the relationship between project manager competency and project success.

**2.4 Mapping Data**

In the data charting stage, selected articles are extracted to summarize the most substantial data. The data recorded are data on authors, titles, research years, research locations, designs/methods, and findings.

**2.5 Compiling, Summarizing, and Reporting Results**

“The final stage of the scoping review is compiling, summarizing, and reporting the research results. Compiling produces a table containing the article extractions carried out at the data mapping stage. Summarizing produces a model or main pattern of the main findings, and reporting produces a report format, which in this case is for publication purposes.”

123  
124  
125  
126  
127  
128  
129  
130  
131  
132  
133  
134  
135  
136  
137  
138  
139

Table 2: the results of collecting articles from 2010-2024:

No	Researcher	Research Title	Variables	Analysis Tools	Research result
1	Sonelma and Sucita (2022)	The Influence of Project Manager Competence Towards the Success of Building Construction Projects Apartment X	Project manager competencies: 1. Technical Project Management (X1), 2. Leadership Skill (X2) and Strategic and 3. Business Management (X3) 4. Project Success (Y)	SPSS, multiple linear regression	Technical Project Management influences the success of construction projects. whereas leadership skills and strategic business management do not influence the success of construction projects
2	Imansyah and Dita (2022)	The Influence of Managerial Competence on Project Performance On Building Construction Projects in Jabodetabek	Competence managerial as (X) Project performance (Y)	SEM-PLS	Competence Managerial has a positive and significant influence on Project Performance
3	Zulaecha et.al. (2021)	Role of Project Manager Towards the Success of Construction Projects	1. Project manager (X) competencies: Knowledge, Performance, and Personal 2. Project Success (Y)	SPSS	performance is a competency variable project manager with the largest Beta value, so this variable can be said to be the one most dominant influence on the success of building construction projects. The order of project manager competency variables that have a dominant influence after the performance variable and followed by knowledge and personal variables.
4	Brahma et al. (2016)	Relationship between Project Manager Competence and Building Construction Project Success	Project competencies : 1. Knowledge (X1), 2. Skill (X2), 3. Attitude (X3) 4. Project success (Y)	SPSS	Stakeholders and Risk Management, Human Resources Management, Leadership and Projects Management, Professionalism and Issues Management, Responsibility, Dream

					and Priority has an influence on project success variables.
5	Riskawati et al. (2021)	The Influence of Project Manager Leadership and Competence on Job Satisfaction and Organizational Effectiveness in Construction Division I PT.	<ol style="list-style-type: none"> <li>1. Leadership (X1),</li> <li>2. Competence (X2)</li> <li>3. Job Satisfaction (Y1)</li> <li>4. Organizational Effectiveness (Y2)</li> </ol>	SPSS, Path Analysis	Leadership and competence Project managers have a positive and significant influence on organizational effectiveness through job satisfaction in Construction Division I of PT Adhi Karya (Persero) Tbk.
6	Prianto.,et .al (2012)	The Influence of Project Manager Competence on Project Success In Contractor Company In Malang Regency	<ol style="list-style-type: none"> <li>1. Knowledge (X1),</li> <li>2. Skill (X2)</li> <li>3. Work Commitment (X3)</li> <li>4. Project Success (Y)</li> </ol>	SPSS, Regression	Variables knowledge, skills, work commitment and top management has a significant influence towards project success of 0.831. Partially, the variables of knowledge, expertise, work commitment and top management have a significant influence on project success were 0.286, 0.296, 0.280 and 0.147 respectively.
7	Surya, et.al. (2024)	The Effect Of Project Manager Competence On The Achievement Of Construction Project Performance	<ol style="list-style-type: none"> <li>1. Knowledge (X1)</li> <li>2. Skill (X2)</li> <li>3. Attitude (X3)</li> <li>4. Project Performance (Y)</li> </ol>	SPSS, Regression	The research results show that knowledge, skills and attitudes have a solid relationship. relationship. On the other hand, management has a high relationship with project performance. achievement in Banda Aceh City. Overall, the project manager competency factor significantly influencing project performance in the city, reaching 94.9%. The most dominant competency project manager is management, indicating that improving management by contractors

					will significantly improve project performance achievement
8	Prihatmoko, (2016)	Relationship Between Teamwork Competencies And the Effectiveness of Project Teams in USD Psychology Students' Group Work	<ol style="list-style-type: none"> <li>1. Teamwork Competence (X)</li> <li>2. Project Team Work Effectiveness (Y)</li> </ol>	SPSS	There is a relationship positive and significant between teamwork competencies and project team effectiveness
9	Inoprasetyo, et al. (2021)	Competence, Organizational Commitment, and Motivation Towards Employee Performance Verbasar Perum Peruri Karawang	<ol style="list-style-type: none"> <li>5. Competence (X1)</li> <li>6. Organizational Commitment (X2)</li> <li>7. Motivation (X3)</li> <li>8. Employee Performance (Y)</li> </ol>	Path Analysis	The results of the study using path analysis stated that the partial influence competence on performance by 26.5%. This shows that competence has positive contribution to performance. The partial effect of organizational commitment on performance is 62.1%. The partial effect of motivation on performance is 4.4%.
10	Rauzana (2022)	The influence of project manager competencies on the success of construction projects: A case of Indonesia.	<ol style="list-style-type: none"> <li>1. knowledge factor (X1)</li> <li>2. Project Success (Y)</li> </ol>	SPSS, Regression	Based on the findings, the knowledge factor found to be a dominant factor in the application of project manager competencies in construction projects in Aceh Province. This shows that the knowledge possessed by a project manager is very influential. success of a construction project. The high level of knowledge of a project manager is influenced by the manager's level of education, work experience, understanding and mastery of project needs, and fulfillment fulfillment of the scope of work on the project so that the project runs according to plan

143 **3. RESULTS AND DISCUSSION**

144 Based on a 15-year time span and 10 empirical studies that match the research questions,  
145 with (100%) research conducted in Indonesia. This study examines the relevance of project  
146 manager competency to the success of construction projects conducted by Sonelma and  
147 Sucita (2022), Imansyah and Dita (2022), Zulaecha et.al. (2021), Brahma et.al (2016),  
148 Riskawati et.al. (2021), Prianto.,et.al (2012), Surya, et.al. (2024), Prihatmoko, (2016),  
149 Inoprasetyo, et al. (2021), Rauzana (2022).

150 Sonelma and Sucita (2022) conducted research on 30 employees of company Y who had at  
151 least two years of work experience and understood project management in the field of building  
152 construction services on the X Apartment development project. The aim of this research was  
153 focused on the magnitude of the influence of the application of project manager competencies  
154 on the success of building construction projects in apartment project X. Research findings  
155 show that based on the results of the author's research that the Leadership skill aspect has a  
156 low level of relationship and does not significantly influence the success of building  
157 construction projects, but this aspect must still be considered because based on the results of  
158 multiple linear regression analysis, the Leadership skill competence of project managers  
159 increases the success value of building construction projects. From the results of the  
160 hypothesis test (t-test) it was concluded that there was no significant influence of the Strategic  
161 and Business Management Project Manager competence on the success of construction  
162 projects.

163 Imansyah and Dita (2022) "this study used 112 respondents. all respondents are professionals  
164 working on building construction projects in Jabodetabek (Jakarta, Bogor, Depok, Tangerang  
165 and Bekasi). The approach used in this study is a quantitative approach with an instrument in  
166 the form of a questionnaire. The research data obtained from the results of filling out the  
167 questionnaire were analyzed using the SEM PLS analysis technique with the help of the  
168 SmartPLS program. The results of this study indicate that managerial can affect project  
169 performance".

170  
171 Zulaecha, et.al. (2021) "Data collection was carried out by distributing questionnaires to 6  
172 building construction projects being worked on by private companies such as contractors,  
173 construction management and owners. Data processing uses statistical analysis methods  
174 using SPSS software. The results of the analysis of knowledge, performance and personal  
175 variables show that the variable that has the most influence on the success of building  
176 construction projects is the performance variable followed by the knowledge variable. "

177  
178 Brahma, et.al. (2016) "Respondents in this study were those who were experienced in the field  
179 of building construction and acted as project managers. Data processing was carried out in  
180 three stages, namely factor analysis to reduce/summarize the many variables into several  
181 groups of factors which then became new independent variables, continued to the correlation  
182 test stage with the Pearson Correlation method to determine the relationship between  
183 independent variables and dependent variables and finally conducting multiple linear  
184 regression analysis. The results of the factor analysis show that the variables are formed into  
185 eleven groups of factors, the results of the Pearson Correlation test show that only six groups  
186 of factors are correlated with project success, including: Communication and Scope  
187 Management, Human Resource Management which is part of knowledge; Leadership and  
188 Project Management, Professionalism and Issue Management as part of skills; and attitude  
189 concerning Responsibility, Dreams and Priorities. The six groups of factors will be independent  
190 variables in the multiple linear regression analysis. From the results of the multiple correlation  
191 test, the six independent variables together have an influence on project success, as  
192 evidenced by the resulting probability value of 0.032".

193

194 Riskawati., et. Al (2021)population onThis study was 209 employees of the Construction  
195 Division at PT Adhi Karya (Persero) Tbk in 2021. The research sample used the Slovin  
196 formula, namely 138 respondents using probability sampling technique. The purpose of this  
197 study was to examine the influence of leadership and project manager competence on job  
198 satisfaction and organizational effectiveness in the Construction Division at PT Adhi Karya  
199 (Persero) Tbk. The results of the study statistically prove that leadership and project manager  
200 competence have a positive and significant effect on job satisfaction and organizational  
201 effectiveness. Leadership and project manager competence through job satisfaction as an  
202 intervening variable have a positive and significant effect on organizational effectiveness. Job  
203 satisfaction as an intervening variable has a positive and significant effect on organizational  
204 effectiveness.  
205

206 Prianto . et.al (2012) The purpose of this study is to determine how big the role of a  
207 simultaneous and partial between knowledge, skills and attitudes of project managers for  
208 project success, and to determine the most dominant factors that influence the success of a  
209 project. This study uses survey research conducted on company contractors in Malang. The  
210 population in this study is contractor management as Project Manager, Supervisor, Leader,  
211 Contractor (Director) or authorized by the Company. The test results in this study indicate the  
212 variables of knowledge, skills variables, attitudes and behavior / work commitment, top  
213 management variables on average have an important influence in determining project  
214 success.  
215

216 Surya, et al. (2024) “This study aims to identify the project manager competency factors in  
217 construction projects in Banda Aceh City, analyze the relationship between this and project  
218 performance achievement, and evaluate its influence on construction project performance  
219 achievement in Banda Aceh City. This study was conducted on contractor companies  
220 domiciled in the Banda Aceh City area, there were 42 respondents studied. Overall, project  
221 manager competency factors significantly affect project performance, achieving  
222 94.9%. Management is the most dominant competency factor influencing the achievement of  
223 project performance in Banda Aceh City. Thus, improving the competency of project  
224 managers, especially in management, is expected to improve the quality of construction  
225 project implementation in the region”.  
226

227 Prihatmoko., Et.al (2016) “The subjects of this study were 86 students who took the industrial  
228 and organizational psychology course at the undergraduate program in psychology, Sanata  
229 Dharma University. The purpose of this study was to determine the relationship between  
230 teamwork competence and project team effectiveness involved in student assignment groups  
231 at the Faculty of Psychology, Sanata Dharma University. The results of this study stated that  
232 There is a positive and significant relationship between teamwork competence and project  
233 team effectiveness of students involved in group assignments in the Industrial and  
234 Organizational Psychology Class”.  
235

236 Inoprasetyo, et.al. (2021) “this research was conducted on135 employees of the Department  
237 Verbasar Perum Peruri. The results of the study using path analysis stated that the partial  
238 influence of competence on performance was 26.5%. This shows that competence has a  
239 positive contribution to performance. The partial influence of organizational commitment on  
240 performanceby 62.1%. This shows that organizational commitment has a positive contribution  
241 to performance. The partial effect of motivation on performance is 4.4%. This shows that  
242 motivation has a positive contribution to performance. Competence, Organizational  
243 Commitment and Motivation have an effect on Performance with the test criteria of sig. (0.000  
244 < $\alpha$  (0.05) and f count (16.609)> t table (1.390), then H0 is rejected. The Total Influence of  
245 Competence (X1), Organizational Commitment (X2) and Motivation (X3) has a contribution to

246 Performance (Y) of 93.0% while the remaining 7% is the contribution of other variables ( $\epsilon$ ) that  
247 were not studied".

248

249 Rauzana (2022) This study aims to determine the project manager competencies that have  
250 the most significant influence on the success of construction projects. The data used are  
251 questionnaires distributed to 43 respondents working in contractor companies located in Aceh  
252 Province, Indonesia. The findings show that the knowledge factor is dominant among all  
253 project manager competencies needed to carry out construction projects in Aceh Province.  
254 This shows that the knowledge possessed by a project manager significantly affects the  
255 successful implementation of these projects.

256

#### 257 **4. CONCLUSION**

258

259 The relevance of project manager competency to project success from various research  
260 results has undergone many developments. The inconsistency of the research results on  
261 project manager competency to project success offers a research gap that connects the two,  
262 either mediating or moderating. This scoping review has mapped the existing literature  
263 assessing the relevance of project manager competency to project success. The review of the  
264 scope of the articles reviewed has several limitations that may be included in the electronic  
265 databases of Google Scholar and Scopus.com. In addition to searching using the desired  
266 keywords of the researcher. The research question for this study is limited to "What is known  
267 from the existing literature about the relevance of project manager competency to project  
268 success?" Several criteria in the search for the scope of articles that can be the foundation of  
269 research conducted with a span of 15 years are considered to be able to represent the results  
270 of research developments on project success, with types of publications in various countries  
271 so as to provide broader insights.

272

273 This study is limited to examining project manager competency and project success. Further  
274 research is expected to be able to add other variables because this study only examines  
275 project success influenced by project manager competency, but it does not rule out the  
276 possibility of other factors outside this study.

277

#### 278 **Disclaimer (Artificial intelligence)**

279 Option 1:

280 Author(s) hereby declare that NO generative AI technologies such as Large Language Models  
281 (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing  
282 or editing of this manuscript.

283 Option 2:

284 Author(s) hereby declare that generative AI technologies such as Large Language Models,  
285 etc. have been used during the writing or editing of manuscripts. This explanation will include  
286 the name, version, model, and source of the generative AI technology and as well as all input  
287 prompts provided to the generative AI technology

288 Details of the AI usage are given below:

289 1.

290 2.

291 3.

292

#### 293 **COMPETING INTERESTS**

294 Authors have declared that they have no known competing financial interests OR non-financial  
295 interests OR personal relationships that could have appeared to influence the work reported  
296 in this paper.

297

298  
299  
300  
301  
302  
303  
304  
305  
306  
307  
308  
309  
310  
311  
312  
313  
314  
315  
316  
317  
318  
319  
320  
321  
322  
323  
324  
325  
326  
327  
328  
329  
330  
331  
332  
333  
334  
335  
336  
337  
338  
339  
340  
341  
342  
343  
344  
345  
346  
347  
348  
349  
350

## REFERENCES

- Brahmantariguna, Ida ayu., et.al. 2016. The Relationship between Project Manager Competence and the Success of Building Construction Projects. *Spektran Journal*, 4 (2), 52-66.
- 2024.[Literature Review: Definition, Examples, How to Make, Benefits, PDF \(internationaljournallabs.com\)](https://internationaljournallabs.com)
- Faela Sufa & Bambang Munas. 2012. "Analysis of the Influence of Advertising Attractiveness, Quality of Advertising Messages, Frequency of Advertising Displays on the Effectiveness of Mie Sedap Television Advertising, *Diponegoro Journal of Management*". Vol 1 (1): 226-233.
- Imansyah, Fatih NP and Dita, Ayomi. 2022. The Influence of Managerial Competence on Project Performance in Building Construction Projects in Jabodetabek. *Sustainable Technology Journal*, 11(02), 83-88.
- Inoprasetyo, Panggita and Nurhasanah, Nunung. 2021. Competence, Organizational Commitment, and Motivation on Employee Performance Verbasar Perum Peruri Karawang. *BALANCE: Economic, Business, Management, and Accounting Journal*, Vol. XVIII No. 1, 78-83.
- LD Trisnawati, GAPC Dharmayanti, NM Jaya, 2018, "Project Performance Analysis on Stakeholder Satisfaction", *Spektran Journal*, 6(2).
- Marpaung, Marudut (2014). The Influence of Leadership and Team Work on Employee Performance at the Cooperative Secretary General of the Ministry of Education and Culture Senayan Jakarta. *WIDYA Scientific Journal*. Vol. 2 No. 1.
- Prianto, Khusnul, et al. 2012. The Influence of Project Manager Competence on Project Success at Contractor Companies in Malang Regency. *Civil Engineering Media*, 10 (2), 156-168.
- Prihatmoko, R.L. (2016). THE RELATIONSHIP BETWEEN TEAMWORK COMPETENCE AND PROJECT TEAM EFFECTIVENESS IN GROUP WORK OF PSYCHOLOGY STUDENTS USD. *Research Journal*, 20.
- Rauzana, Anita, et al. 2022. The influence of project manager competencies on the success of construction projects: A case of Indonesia. *Problems and Perspectives in Management*, Volume 20, Issue 3, 67-75.
- Riskawati, et.al. 2021. The Influence of Project Manager Leadership and Competence on Job Satisfaction and Organizational Effectiveness in Construction Division I of PT. Sriwijaya *Journal of Management and Business*. Vol.19 (2), 129-138.
- Sonelma, Nedyia and Sucita, Ketut I. 2022. The Influence of Project Manager Competence on the Success of the X Apartment Building Construction Project. *Construction and Material Journal*. 4 (1), 71-81.
- Surya, M Fauzan., et al. 2024. The Effect of Project Manager Competence on the Achievement of Construction Project Performance. *Journal of Indonesian Impressions*, Vol 3 (2), 170-175.

- 351 Trisnawati, D., & Ferdinand, A. T. (2018). Analysis of the Influence of Service System Quality,  
352 Physical Service Environment, Contact Personnel, Utilitarian Value, and Company Image on  
353 Purchasing Decisions (Study of Trans Semarang BRT Users). *Diponegoro Journal of*  
354 *Management*, 7(4), 1–13.
- 355  
356 Zulaecha, et.al. 2021. The Role of Project Managers in the Success of Construction Projects.  
357 *UMT Engineering Journal*, 10(1), 35-46.