Analysis of the contractor’s performance during the Covid-19 pandemic in West Sumatra Province

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Abstract. The covid-19 pandemic had struck the world and affected the national development, especially in Indonesia. Many construction sectors experience disruption; therefore, it directly impacts the contractor’s performance. This study analyzes the internal and external dominant factors that affect the contractor’s performance during the covid-19 pandemic in West Sumatra Province, Indonesia. This study was a cross-sectional study with a qualitative approach using a self-administered questionnaire with 26 variables. Fifty eights respondents in the water resources field projects have participated in this study. The data was collected and analyzed by using multivariate analysis (logistic regression test). It was concluded that the distribution of salaries on the managerial aspect becomes dominant in the internal factor. Government policy factors regarding the implementation of work outside become the crucial external factor that significantly affects the contractor's performance. So, it is suggested to the well-organized distribution of salaries and well preparation of conditional administration related to government policies during the Covid-19 pandemic.

1. Introduction

The outbreak of the coronavirus infection (covid-19) has been declared a pandemic by WHO, currently occurring in more than 200 countries globally, including Indonesia [1]. The Indonesian government issued several instructions related to handling the Covid-19 case through Presidential Instruction No. 4 of 2020, which indirectly paralyzed several economic sectors, including the national development sector [2].

The slowdown of the national development sector has had a significant impact with the issuance of several policies by the central and regional governments, in terms of the budget-cutting for the Physical Special Allocation Fund (Dana Alokasi Khusus/DAK), the General Allocation Fund (Dana Alokasi Umum/DAU) and the Physical Sector Regional Expenditure Budget (Anggaran Pengeluaran Belanja Daerah/APBD). Large-Scale Social Restriction Policy (Kebijakan Pembatasan Sosial Berskala Besar/PSBB) also directly impacts the national development of the construction sector and the performance of construction service companies, especially in the West Sumatra Province.
The performance of a company is influenced by factors consisting of internal factors (managerial, human resources, and work results) and external factors (policy, economy & market conditions, as well as natural and non-natural factors) [3]. This study analyzes the internal and external dominant factors that affect service provider performance during the covid-19 pandemic in Sumatera Barat Province, Indonesia.

2. Contractors performance

Performance factors are classified into two parts, which are internal and external factors. For internal factors, there are managerial aspects, human resources aspects, and work results. External factors consist of government policy, economy and market, and nature (environmental) aspects.

A. Managerial aspect

A1. Communication System and Method

The ideal performance communication method system is the delivery of information between the giver and recipient of information with the same understanding as an appropriate means of improving employee performance [4].

A2. Facilitation and Equipment Mobilization

Construction equipment is one of the crucial factors that must be fulfilled in implementing a construction project. Ease of mobilization of work equipment (construction) is an indicator that can affect the quality achievement of a construction work [5].

A3. Coordination with related parties

Coordination is an effort that is synchronous and orderly in providing the right amount and time and directing the implementation to produce a uniform and harmonious action on a predetermined target. Good coordination aims to achieve an effective work organization [6].

A4. Delegation of Duties and Authorities

Delegation of duties and authority is an essential point for achieving the organization's goals by paying attention to aspects; such as functions, delegation recipients' expertise, trust, deliberation, work commitment, monitoring, and evaluation [7].

A5. The Company's Budget Control System and Cash Flow Management

A budget control system is needed to carry out efficient, efficient, and time-consuming work, and the realization of its use can be accounted for [8].

A6. Distribution of salaries/wages for personnel and labor

The provision of salaries or wages aims to improve the workers' quality of life to increase labor productivity by highlighting on-time payment and the appropriateness of the total revenue received by workers [9].

B. Human Resources aspect

B1. Managerial aspect
Construction companies' performance is very dependent on labor productivity; it may increase due to the right motivation from personnel and labor. Several ways of motivation can be carried out by companies, namely by giving bonuses as an appreciation for the labor and creating a positive environment [10].

B2. The productivity of Personnel and Labor

Labor productivity is highly dependent on the factors of reward and remuneration (giving rewards) for what is done to the company so that workers try to improve work performance [9].

B3. Renewal and Creativity of Personnel and Workforce

Innovative work behavior is related to creative thinking processes (intra-personal) in every idea implementation in work situations [11]. The effectiveness of innovative behavior will be achieved if workers' basic motives, such as competence-autonomy and the desire to build social synergy, can motivate workers to be able to explore new ideas.

B4. Application and application of Work Safety (OHS)

The implementation of construction work safety and health is carried out to mitigate the impact of work accidents. Work Safety is categorized as successful if an OHS supervisory officer is working, there is a minimal risk of work accidents that occur, and the level of handling of accidents can be overcome [12].

B5. Availability and Distribution of Labor

The human resource factor consists of the workforce, which is a resource that plays a significant role in the success of a project. Good results will not be obtained without adequate skilled and unskilled personnel, proper allocation, and management of human resources [13].

C. Work Results

C1. Work Volume Compatibility

Construction work is a complicated job covering various aspects and problems; one of the expected results is the suitability of the work volume based on the previously agreed bill of quantity. The mismatch of the volume of work has an impact on the company's failure to carry out work so that it has an effect on Cost Overrun (additional work costs) [13].

C2. Quality/quality of work results

Improving the quality of construction companies is needed to increase the competitiveness of a company. A company has implemented an effective quality management system if it can minimize the quality cost expenditure [14].

C3. Job Aesthetics

Job aesthetics have weight based on the type of construction and have a cost or costs that can be high and have a risk in terms of continuous maintenance [15].

C4. Suitability of Work Implementation Time

The management of construction work is classified into 3, namely: Time, cost, and quality. Those factors are related to one another. The delay in completing work has a harmful impact, both for the company
and job directors. One of the factors causing work delays is the lack of competence in labor, the lack of material availability, and other factors [16]

D. Government Policy

D1. Government Policy Support

Several government policies regarding construction influence companies' performance engaged in construction, where policies are dynamic and change according to the needs and current conditions of an area of authority. For this reason, companies are required to have quality competitiveness always to follow policy changes set by the government [17]

D2. Implementation of work outside the region and restrictions on travel outside the region

The nature of the construction work always changes according to the job requirements. The open procurement/auction regulation allows the construction company to carry out work outside the domicile area. This condition has an impact on the project costs, in terms of mobilization and distribution, besides that government policies regarding trips outside the region also influence maximizing a construction work [13]

D3. Procurement / Tender Process

The quality of the procurement of construction work executors has several weaknesses and deviations that result in state losses so that control is needed from the parties to prevent the occurrence of criminal acts of corruption [18]

D.4 Settlement Patterns of Contract Disputes

In planning, executing, and supervising construction work, a form of the written agreement between the service user and the service provider is required in the form of a contract, known as a construction work contract or construction agreement. A legal opinion on the draft contract to be signed is needed to avoid irregularities in the contract formation process (tender). The perfection of contract formation is one way to avoid disputes in the future [19]

E. Economy and Market

E1. Currency Exchange Fluctuation

The profitability factor is a measure of company performance, consisting of currency exchange rate fluctuations that affect the economy. Unstable exchange rates have an impact on the company's financial performance and have the potential to experience losses [20]

E2. Bank Interest Rate

Bank interest rates are an influencing factor for companies that run business with the support of the Bank; lowering Bank interest rates can indirectly improve company performance in increasing company profitability [21]

E3. Market Price Stability Conditions

Price changes such as an event's occurrence can affect company performance, where price changes that occur during the planning or procurement period change during the work implementation period. The
effect of inflation and an increase in interest rates has an impact on rising prices, material, wages, and loans [13]

E4. Logistics Network System and Equipment and Material Supply Chain

The concept of effective raw material logistics handling shows the long-term integration between suppliers and production units and production units with end consumers. The end goal is to achieve customer satisfaction [22]

F. Nature and Non-Nature

F1. Completion of work due to natural disasters

Natural disasters become a polemic in the implementation of construction work. A company is said to be good at dealing with a disaster that has an impact on the performance of a construction project if it can control time, cost, quality (quality) in carrying out the work [23]

F2. Support and Concern for the Community Around the Work Site

Support from the government and stakeholders, including the community, is one of the success factors in the construction industry and creates a positive and conducive atmosphere to improve a company's performance [24].

F3. Support from Local Government and Community Organizations

Support from the government and stakeholders, including community organizations, is one of the success factors in the construction industry and creates a positive and conducive atmosphere to improve a company's performance [24].

3. Research methodology

In this study, the respondents were contractor companies carrying out construction work during the Covid-19 pandemic in West Sumatra Province. Fifty-eight contractor companies that have undergone work (contract) participated in this study. Before determining the dominant factors that affect performance, the first step was to determine the variables that affect the performance and then classify internal and external factors.

The data were collected using a questionnaire that had been tested for validity and reliability (Cronbach alpha value = 0.898). The questionnaire was distributed online to contractor companies carrying out construction work during the Covid-19 pandemic in the Water Resources sector. Questionnaire data processing of 26 variables was carried out using a Likert scale (very good = 5, good = 4, no difference = 3, less good = 2, worse = 1). Furthermore, multivariate analysis was carried out with logistic regression tests to determine the most dominant internal and external factors affecting contractors companies' performance in West Sumatra province, the performance of service providers during the Covid-19 pandemic. Data analysis was performed using SPSS version 22.

4. Results and discussion

The managerial aspect has a variable percentage value of construction service performance during a pandemic compared to normal conditions (Table 1). Variable systems and communication methods, coordination between related parties, and the budget system during the Covid-19 pandemic had the
highest percentage in the good category with a total percentage of 70.7%, 58.6%, and 56.9%, respectively. Facilitation and tool mobilization had the same highest percentage, namely 31% in the no difference and worse category. The process of distributing salaries or wages has the highest percentage in the no difference category (46.6%). The delegation of tasks and authorities has the largest percentage in the category.

Based on the Human Resources Aspect, personnel motivation, personnel productivity, and the implementation of Work Safety and the Covid-19 protocol were better than normal conditions with the respective percentages of 63.8, 58.6, and 70.7%. Most respondents stated no difference in innovation and creativity of personnel (55.2%) during the pandemic with normal conditions. However, most respondents noted that the labor distribution was worse during the pandemic period than normal conditions, namely 44.8%.

In terms of the aspect of work results for the variable of work volume suitability, quality/quality of work results, job aesthetics, and job suitability, most respondents stated that there was no difference for each of these variables during the Covid pandemic with a percentage of 50, 55.2, 62.1, and 56.9% respectively.

Internal factors cover three aspects that affect contractors companies' performance, including aspects of policy, economy and markets, and natural and non-natural aspects. In terms of the policy, the variable of the implementation of external works and the policy on the tender procurement process had the highest percentage in the worse category compared to normal conditions, namely 58.6 and 35.4%. The policy pattern for contract dispute resolution was 44.8% of respondents stated that there was no difference during the Covid pandemic with normal conditions. In comparison, 62.2% of respondents stated that government policy support was better during the pandemic.

Based on economic and market aspects, most respondents stated that currency exchange rate fluctuations (39.7%), market price stability conditions (62.1%), and logistic and material network systems (41.4%) were worse than normal conditions. The interest rate was better during the pandemic at 67.2%.

From the natural and non-natural aspects; The follow-up for solving problems caused by the disaster, the local community's support and concern, and the disaster supported by the local government and community organizations were better than normal conditions with a percentage of 51.7, 62.1, and 50% respectively.

Table 1. Frequency Distribution of Internal and External Factors to the Services Performance Provider During the Covid-19 Pandemic in West Sumatra Province, Indonesia (n=58)

| Factors affected the Contractors Performance | Very Good | Good | No difference | Bad | Worse |
|-------------------------------------------|-----------|------|---------------|-----|-------|
| A. Internal Factor Managerial Aspect       |           |      |               |     |       |
| Communication systems and methods          | 2         | 3.4  | 41            | 70.7|       |

Table 1. Frequency Distribution of Internal and External Factors to the Services Performance Provider During the Covid-19 Pandemic in West Sumatra Province, Indonesia (n=58)
| Factors affected the Contractors Performance | Very Good n  |  % | Good n  |  % | No difference n  |  % | Bad n  |  % | Worse n  |  % |
|--------------------------------------------|-------------|----|---------|----|-----------------|----|--------|----|----------|----|
| Facilitation and mobilization of work equipment | -           | -  | 21      | 36.2 | 18              | 31 | 18     | 31 | 1       | 1.7 |
| Coordination between related parties         | 2           | 3.4 | 34      | 58.6 | 17              | 29.3 | 5 | 8.6 | - | - |
| Delegation of Duties and Authorities         | -           | -  | 32      | 17.2 | 23              | 39.7 | 3 | 5.2 | - | - |
| Budget control systems and accountants       | 1           | 1.7 | 33      | 56.9 | 14              | 24.1 | 10 | 17.2 | - | - |
| The process of distributing salaries or wages| -           | -  | 2       | 3.4 | 27              | 46.6 | 29 | 50 | - | - |

**Human Resources Aspect**

| Personnel Motivation                      | 2           | 3.4 | 37      | 63.8 | 15              | 25.9 | 4 | 6.9 | - | - |
| Personnel Productivity                    | 1           | 1.7 | 34      | 58.6 | 20              | 34.5 | 3 | 5.2 | - | - |
| Personnel Innovation and Creativity       | -           | -  | 24      | 41.4 | 32              | 55.2 | 2 | 3.4 | - | - |
| Application of K3 and the Covid-19 Protocol| 9           | 15.5 | 41    | 70.7 | 7              | 12.1 | 1 | 1.7 | - | - |
| Labor Distribution                        | 1           | 1.7 | 18      | 31 | 11              | 19 | 26 | 44.8 | - | - |

**Work Results Aspect**

| Work Volume Compatibility                  | 2           | 3.4 | 27      | 46.6 | 29              | 50 | - | - | - | - |
| Quality/quality of work results            | 2           | 3.4 | 24      | 41.4 | 32              | 55.2 | - | - | - | - |
| Job Aesthetics                             | -           | -  | 21      | 36.2 | 36              | 62.1 | 1 | 1.7 | - | - |
| Suitability of Work Results                | 1           | 1.7 | 21      | 36.2 | 33              | 56.9 | 3 | 5.1 | - | - |

**B. External Factors**

**Policy Aspect**

| Government Policy Support                  | -           | -  | 36      | 62.1 | 9              | 15.5 | 13 | 22.4 | - | - |
| Implementation of External Work            | 1           | 1.7 | 11      | 19 | 2              | 3.4 | 34 | 58.6 | 10 | 17.2 |
| Policies regarding the procurement/tender process | 2           | 3.4 | 16      | 27.6 | 13              | 22.4 | 20 | 34.5 | 7 | 12.1 |
| Contract Dispute Settlement Policy Patterns| -           | -  | 24      | 41.4 | 26              | 44.8 | 8 | 13.8 | - | - |
Factors affected the Contractors Performance

| Economic and Market Aspects | Very Good | Good | No difference | Bad | Worse |
|-----------------------------|-----------|------|---------------|-----|-------|
| Currency Exchange Fluctuation | 1 1.7   | 16 27.6 | 18 31 | 23 39.7 | - - |
| Bank Interest Rate          | 1 1.7   | 39 67.2 | 10 17.2 | 8 13.8     | - - |
| Market Conditions           | - -     | 12 20.7 | 9 15.5 | 36 62.1 | 1 1.7 |
| Logistics and Network Systems | - - | 19 32.8 | 13 22.4 | 24 41.4 | 2 3.4 |

Natural and Non-Natural Aspects

| Internal factor | Very Good | Good | No difference | Bad | Worse |
|-----------------|-----------|------|---------------|-----|-------|
| The follow-up to solve problems due to disaster | - - | 30 51.7 | 21 36.2 | 7 12.1 | - - |
| Local Community support and care | 1 1.7   | 36 62.1 | 16 27.6 | 4 6.9 | 1 1.7 |
| Support from Local Government and Community Organizations | 3 5.2   | 29 50 | 19 32.8 | 7 12.1 | - - |

4.1 Internal factors

Based on the statistical analysis results (Table 2), it is found that wages of labor are the dominant internal factors that are dominant in influencing the contractors' performance. Based on some literature, there are several reasons that wages/wages for labor are a dominant factor in determining company performance. The Covid-19 pandemic has an impact on the economy, including several companies that have terminated their workforce, thus making workers work has difficulty getting a job and requires income to make ends meet. This is in line with the study conducted by Juaningsih in 2020, which stated that one of the government's policy's impacts in issuing a Large-Scale Social Restriction (PSBB) policy was layoffs by several companies against workers on the grounds of force majeure or experiencing losses. [25]. Furthermore, the condition of Panic Buying in several circles of society during the Covid-19 pandemic was caused by an imbalance of income and expenditure. The income was not sufficient to meet the needs of daily life. Research supports this by Shadiqi et al. in 2020, which discusses the polemic due to Covid-19 in Indonesia. Panic buying is uncontrolled behavior carried out by consumers, which often leads to anxiety that will run out of stock, sometimes not accompanied by an individual's ability to determine their primary needs in dealing with perceptions of uncertainty [26].

Table 2. The Relationship of Internal Factors to the Services Performance Provider During the Covid-19 Pandemic in Sumatera Barat Province, Indonesia (n=58)

| Internal factor | Company Performance (p-value) |
|-----------------|-------------------------------|

8
Communication systems and methods 0.729
Facilitation and mobilization of work equipment 0.069
Coordination between related parties 0.183
Delegation of Duties and Authorities 0.302
Budget control systems and accountants 0.061
The process of distributing salaries or wages 0.021
Personnel Motivation 0.519
Personnel Productivity 0.936
Personnel Innovation and Creativity 0.556
Application of K3 and the Covid-19 Protocol 0.159
Labor Distribution 0.419
Work Volume Compatibility 0.788
Quality/quality of work results 0.076
Job Aesthetics 0.689
Suitability of Work Results 0.556

The implementation of the PSBB policy carried out by the central and regional governments to break the Covid-19 chain impacts the wage distribution mechanism, so it becomes a problem when a company imposes daily payments using the cash payment method for workers. This is similar to Sari's research in 2016, which states that part or all of the wages are determined according to a certain period. If wages are paid daily with a certain amount of money, workers' average wage for work must be taken considering nature, place, and time [27].

4.2 Eksternal factors

On the external factors that affect the company's performance based on the results of the study's statistical analysis (Table 3), it is found that the implementation of work outside the area affected by the policy of restricting trips outside the region has a dominant factor in determining the company's performance. During the Covid-19 Pandemic, the province of West Sumatra has implemented the PSBB, which includes strict checking of every district/city boundary carried out by officers when carrying out tasks outside the region. Hairi (2020) reviewed that the PSBB policy was enforced by the Indonesian government, especially in activities in public places, where all groups, both government and private, must comply with the PSBB provisions set by the government and also pay attention to travel in order to minimize the transmission of Covid-19. The government policies include arranging a Health Certificate before carrying out a task outside the region, which spends enough time in the process to impact delays in project work implementation [28]. Some factors that affect the implementation of work outside the region: Unexpected costs; Cost/costs for mobilizing equipment and labor from outside the region; lodging costs for workers who come from outside the area; Monitoring costs of work
implementation that are not taken into account in the project budget; The location of the work that is unfamiliar to the contractor to obtain resources. This finding is similar to a research conducted by Nurdiana in 2015, which states that every project must consider two aspects: direct and indirect costs, where indirect costs are allocated for rights that cannot be predicted in advance, including risk costs and quality costs [29].

Table 3. The Relationship of External Factors to the Services Performance Provider During the Covid-19 Pandemic in Sumatera Barat Province, Indonesia (n=58)

| External Factors                                         | Company Performance (p-value) |
|-----------------------------------------------------------|-------------------------------|
| Government Policy Support                                 | 0.419                         |
| Implementation of External Work                          | 0.022                         |
| Policies regarding the procurement/tender process         | 0.364                         |
| Contract Dispute Settlement Policy Patterns              | 0.620                         |
| Currency Exchange Fluctuation                            | 0.039                         |
| Bank Interest Rate                                        | 0.457                         |
| Market Price Stability Conditions                        | 0.208                         |
| Logistics and Materials Network Systems                  | 0.587                         |
| The follow-up to solve problems due to Disaster          | 0.028                         |
| Local Community support and care                         | 0.320                         |
| Support from Local Government and Community Organizations| 0.402                         |

5. Conclusion

In the internal factor of the contractor company performance, managerial factors in the form of distribution of salaries/wages of labor are the dominant factors that influence the contractor's performance. Furthermore, on external factors, the government policy factor regarding the implementation of work outside the area affected by the policy of restricting trips outside the area is the dominant factor that influences the performance of contractors. So it is advisable to contractors company to improve performance, by managing the distribution of salaries efficiently. That can be implemented by utilizing banking facilities and preparing administrative documents in the form of permits in and out of the region; health and free of Covid-19 certificates before going on a business trip outside the city to facilitate requirements during PSBB.

References

[1] S. Setiati and M. K. Azwar 2020, “COVID-19 and Indonesia,” Acta Med. Indones.,
[2] R. Djalante et al., "Review and analysis of current responses to COVID-19 in Indonesia: Period of January to March 2020," Prog. Disaster Sci., 2020, DOI: 10.1016/j.pdisas.2020.100091.
[3] J. Tumelap, M. Sumajouw, and E. Waney 2014, “Performance Analysis of Construction Implementation Services Companies (Case Study in Sarmi Regency)” J. Ilm. Media Eng., 4, no. 2, p. 99224. (In Bahasa)
[4] A. As’ad 2018, “The effect of work planning and communication on employee performance” J.
Ilmu Ekon., 1, no. 1, pp. 165–182. (In Bahasa)

[5] Y. Hernandi and J. S. Tamtana, “Factors Affecting Worker Productivity In The Implementation Of Multi-storey Building Construction” JMTS J. Mitra Tek. Sipil, 3, no. 2, p. 299, 2020, doi: 10.24912/jmts.v3i2.6985. (In Bahasa)

[6] F. Ainiyah, Yulianeu, and A. Fathoni 2017, The influence of coordination, division of work, and organizational commitment on work effectiveness with working period as a moderation variable” J. Manage, 1.

[7] H. Harmonedi, “Delegation of Duties and Authorities in Islamic Education” Murabby J. Pendidik. Islam, 2, no. 1, pp. 80–88, 2019, doi: 10.15548/mrb.v2i1.331. (In Bahasa)

[8] A. Rosita, “Designing Information Systems for Planning and Budget Control in Higher Education. Case study in Universitas Widyatama Bandung” pp. 8–9, 2018. (In Bahasa)

[9] S. dewi Aggadini 2014, “Analysis of the influence of salaries and welfare benefits on the work productivity of the operations department employees at PT. Indonesian leaf export” J. Paradig..

[10] H. Aziz and B. Hidayat 2017 “Motivation of Workers in Construction Projects in the City of Padang” J. Rekayasa Sipil, 13, no. 1, p. 29, 2017, doi: 10.25077/jrs.13.1.29-42. (In Bahasa)

[11] J. De Jong and D. Den Hartog, "Measuring innovative work behavior," Creat. Innov. Manag., 19, no. 1, pp. 23–36, 2010, DOI: 10.1111/j.1467-8691.2010.00547.x. (In Bahasa)

[12] I. Sanjaya, I. Widhiawati, and A. Frederika 2012 “Analysis of the Application of Occupational Safety and Health (K3) in Building Construction Projects in Klungkung and Karangasem Regencies”. J. Ilm. Elektron. Infrastruktur Tek. Sipil, 1, no. 1, pp. 1–9. (In Bahasa)

[13] I. Agsarini 2015 “The Influence of Project Internal and External Factors on Construction Project Performance in South Kalimantan Province”. (In Bahasa)

[14] S. B. Nrp and R. Indryani 2000 “Quality Management System Implementation On Quality Cost,”.

[15] M. C. Munawar 2014, “Study of the Building Structure of the ITS Naval Architecture and Shipbuilding Polytechnic Building with a conventional plate and beam system guided by a flat slab structure system with drop panels in terms of aesthetics, cost and time” J. Tek. Sipil Untang Surabaya, 7, no. 1, pp. 83–92. (In Bahasa)

[16] N. Noumeiry 2017, “Factors Influencing Intention” J. Teknol. Berkelanjutan, 2, no. 1, pp. 29–40. (In Bahasa)

[17] F. N. Hidayah and K. Roisah 2017, “Analysis of the Impact of Indonesian Government Policies on Service Trade Competition in the Construction Sector in the Context of the Asean Economic Community” Law Reform, 13, no. 1, p. 45, doi: 10.14710/lr.v13i1.15950. (In Bahasa)

[18] C. Zukhrina Oktaviani 2015, “The Relationship Between the Quality of Government Construction Work Procurement and the Quality of Indonesia's Infrastructure” Semin. Nas. Tek. Sipil V 2015, 86, no. 71, pp. 286–291.

[19] S. R. Slamet 2016, “Perfection of Construction Work Contracts to Avoid Disputes” Lex Jurnalica, 13, no. 3. (In Bahasa)

[20] R. Soebardi 2012, “Innovative Behavior” J. Psikol. Ulayat, 1, no. 1, pp. 57–74, doi: 10.24854/jpu12012-10. (In Bahasa)

[21] M. Ulfa 2016, “the influence of accounting conservatism, managerial ownership, dividend policy, company size, leverage, price earning ratio, price to book value, and earnings per share on earnings management,” J. Ekon. Bisnis, 10, no. 2, pp. 1689–1699, doi: 10.1017/CBO9781107415324.004. (In Bahasa)

[22] N. Purwatmini 2015, “The role of supply chain management for creative industries based on the
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