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## The Influence of Information Technology Usage on Employee Productivity at Perum Damri in Makassar

Pebrinia Gala<sup>1</sup>, Mira La'bi Bandaso<sup>2</sup>, Kordiana Sambara<sup>3</sup>

<sup>1,2,3</sup> Management Study Program, Faculty of Economics and Business, Paulus Christian University of Indonesia

<sup>1</sup>[pebriniagala@gmail.com](mailto:pebriniagala@gmail.com)\*, <sup>2</sup>[mirabandhaso115@gmail.com](mailto:mirabandhaso115@gmail.com), <sup>3</sup>[ksambara86@gmail.com](mailto:ksambara86@gmail.com)

### **Abstract**

*Study This aiming For analyze influence use technology information to productivity employees at Perum DAMRI Makassar. The method used is approach quantitative with distribution questionnaire to 30 employees as respondents . Data analysis was carried out through Pearson correlation test , the coefficient determination , and t-test. Research results show that there is connection positive and significant between use technology information and productivity employee with mark coefficient correlation of 0.588. The coefficient of determination by 34.6% indicates that use technology information donate influence to productivity employees , while the rest influenced by other outside factors research . The t-test shows t - value (3.849) > t- table (2.048), which strengthens that influence the significant in a way statistics . Findings This show importance implementation technology information optimally for increase efficiency work , output quality , and performance employee in a way overall . Therefore that , investment in training digital technology and infrastructure become important strategies for organization For increase productivity source Power man .*

**Keywords:** *Technology Information, Productivity Employees, Efficiency, DAMRI, Statistical Test*

### **1. Background**

In the era of digital transformation , the use of technology information (IT) becomes vital elements in increase Power competitiveness and efficiency operational company . A company that is capable utilise technology optimally tend to own superiority in productivity and quality services (Haag & Cummings, 1996). This is also applies in the sector increasingly transportation depends on integration digital system for support its business processes .

Technology information No only used as tool help administrative , but rather has become instrument strategic in taking decisions , communication , data management , to tracking operational in real-time (Williams & Sawyer, 2003). In the context of This , IT has potential big For jack up productivity Work employee through convenience access information , process automation , and efficiency Work .

Perum DAMRI, as one of the State-Owned Enterprises (BUMN) in the transportation sector transportation land , facing demands For increase quality service in a way fast and responsive . As the number of expectation customer to service digital- based , DAMRI is required adopt system advanced information For support operational and resources Power humans (Ria & Budiman, 2021).

However , still there is challenge in ensure that all over employee own adequate competence in use technology available information . The gap digital capabilities can cause inefficiency in channel Work as well as lower productivity individual and also organization (McKeown, 2001).

Internal data shows that part big employees at Perum DAMRI Makassar have Work more from 10 years , which is demographic dominated by groups age over 39 years . Group This often face challenge in adapt with technology new ( Damri , 2025). Therefore that , IT adoption is necessary accompanied with development strategy employee digital capacity .

Temporary that, report DAMRI's performance in 2024 shows existence pressure For lower cost operational and improve speed service. One of the effort efficiency achieved is through implementation technology like system booking online tickets, digitalization attendance, and integration report finance (Perum DAMRI, 2024).

Productivity employee Alone is indicator important in evaluate success implementation technology information. Productivity reflect effectiveness and efficiency employee in finish task with optimal quality and time (Anoraga, 2009). In the context of This, IT is expected capable speed up work, minimize mistakes, and push independence Work.

A number of study previously show connection positive between IT utilization and HR performance. Agustini and Dewi (2018), for example, found that use system information impact positive to speed work, quality service, and capability taking decision employee.

Even though Thus, the influence of IT on productivity can varies depending on the intensity its utilization, reliability system, convenience its use, as well as amount device or application used (Davis, 1989). Because that, is needed study empirical research how far technology information truly give impact to HR performance in context specific, such as DAMRI Makassar Public Housing.

Until now, still limited research that is special to study influence use technology information to productivity employees in the state-owned transportation sector, especially in context operational local. In fact, the organization like DAMRI holds role strategic in provision transportation public in Indonesia.

Study This become important For answer question basic: what technology The information applied in Perum DAMRI Makassar is really contribute to improvement productivity employees? If yes, to what extent is the contribution the can explained in a way quantitative?

In answer question said, research This No only give contribution theoretical in development knowledge management source Power human and system information, but also contribution practical for management DAMRI Public Housing in designing impactful digitalization strategies directly on productivity.

With use approach quantitative and technical analysis statistics such as Pearson correlation test and t-test, research This aiming For measure power and significance connection between variable use technology information and productivity Work.

This study focus data collection on employees DAMRI Makassar Public Housing with amount Respondent as many as 30 people, representing various divisions of work. Selection location This consider data availability, urgency improvement services, as well as dynamics adoption technology that is currently taking place at the branch the.

It is expected results study This can become base taking policy in improvement employee digital competency, procurement appropriate IT infrastructure, as well as evaluation effectiveness technology that has implemented.

With Thus, the background behind study This show existence urgency, relevance, and significant contribution Good in realm academic and also practical. Focus main study This is identify and measure how much big influence use technology information to productivity employee DAMRI Public Housing in Makassar,

## 2. Research Methods

Study This use approach quantitative with design study explanatory, which aims to For test influence between variable independent, namely use technology information, regarding variable dependent, namely productivity employees. Approach This chosen Because rated capable give objective and measurable picture about connection causal between second variables studied. Explanatory design allow researcher For test hypothesis that has been formulated based on theories and findings previously.

Study This implemented at Perum DAMRI Makassar Branch, which is one of the office representative from company transportation owned by the country. This location chosen Because currently in stage intensive digitalization and transformation service based on technology information. Implementation time study in progress during One month, namely April to May 2025, which includes the distribution process questionnaires, data collection, to analysis results.

Population in study This is all over employee The active DAMRI Makassar Public Works working at the moment study conducted. Based on the company's internal data, the total population as many as 30 people. Considering amount relative population small and affordable, then all over population made into as sample research, or known

with technique census . Approach This allow generalization results study done in a way direct to all over existing population .

Primary data collection techniques were carried out use instrument in the form of questionnaire closed arranged based on indicator theoretical from each variable . Questionnaire the spread out in a way direct to the respondents For filled in a way independent . The measurement scale used in questionnaire is Likert scale with five levels choice answer , start from “Strongly Disagree ” ( score 1) to “Strongly Agree ” ( score 5).

Variables independent in study This is use technology information , which is measured through four indicator main that is intensity utilization , convenience usage , quantity application or the device used , as well as reliability system technology information (Davis, 1989). While variable dependent is productivity employees , which is measured through indicator ability , quality work , spirit work , and development self ( Anoraga , 2009). Second variable operationalized to in a number of question items in questionnaire .

Validity Contents questionnaire tested through consultation to lecturer mentor and expert field management technology information , while its reliability measured using internal consistency tests . In addition , data collection is also equipped with observation direct to use device technology by employees in the environment office as well as documentation Supporter from party management .

Data obtained Then analyzed in a way quantitative with use technique analysis statistics descriptive and inferential . Statistics descriptive used For describe characteristics respondents and distribution answer . While that , for know relationship and influence between variables , the Pearson Product Moment correlation test and the partial t-test were used . The correlation test used For see strength and direction connection between variables , while the t-test is used For test significance influence in a way statistics .

The coefficient of determination ( $R^2$ ) is also calculated to determine how much big proportion variability productivity employees who can explained by the use of technology information . All calculation done with help device soft SPSS statistics version latest to ensure accuracy and efficiency in the data analysis process .

Research methods This designed in a way systematic For ensure validity results obtained as well as support compilation recommendation practical for party management DAMRI Makassar Public Housing . With approach quantitative and tools appropriate analysis , expected results study This capable explain in a way empirical relatedness between technology information and improvement productivity employee in context organization transportation public .

### 3. Results and Discussion

Study This done against 30 respondents who are employee active in Perum DAMRI Makassar Branch. Presentation results started with analysis characteristics Respondent For give description general about profile demographic participants study .

Characteristics Respondent based on age show that majority Respondent is at in range age >39 years as many as 22 people or 73%. Meanwhile that , respondents aged 25–31 years as many as 5 people (17%), aged 32–38 years as many as 3 people (10%), and no there is Respondent in range age 18–24 years . This is show that part big employee is at in group age ripe that has own experience Work long enough .

As for the characteristics based on length of service show that 21 respondents (70%) have Work more of 10 years . The rest , 4 people (13%) work for 3–6 years , 4 people (13%) worked for 7–10 years , and only 1 person (3%) was new Work between 0–3 years . With Thus , it can concluded that majority Respondent is power senior workers who have been in the environment for a long time Work DAMRI Public Company .

Study This aiming For answer question : " What is use technology information influential significant to productivity employee DAMRI Housing Complex in Makassar?" Based on results analysis statistics , the following This served findings main study .

First , analysis correlation between use technology information (X) and productivity employee (Y) is done with using the *Pearson Product Moment* test . The calculation results is as following :

**Pearson Correlation Test Results**

Variables X & Y	r value	Information
Technology & Productivity	0.588	Enough influential , positive

Based on Table 1, the value correlation of 0.588 indicates positive and sufficient relationship strong between second variable . This means that the more tall use technology information , then the more high productivity employee .

Next , a coefficient test was carried out determination (R<sup>2</sup>) for know the magnitude influence technology information to productivity . The result shown as following :

**Table 2. Coefficient of Determination**

R <sup>2</sup>	Percentage Influence
0.346	34.6%

The R<sup>2</sup> value = 0.346 indicates that use technology information capable explains 34.6% of the variation productivity employees , while the rest (65.4%) is explained by other variables outside the model, such as motivation work , leadership , training , or environment Work .

For test significance influence the in a way statistics , a t-test was conducted on mark correlation . The t-test formula is following :

$$t = 0,588 \frac{\sqrt{n - 2}}{\sqrt{1 - r^2}}$$

$$t = 0,588 \frac{\sqrt{30 - 2}}{\sqrt{1 - (0,588)^2}}$$

$$t = 0,558 \frac{\sqrt{28}}{\sqrt{1 - 0,346}}$$

$$t = 0,588 \frac{5,291}{0,808}$$

$$t = 0,588 \times 6,548$$

$$t = 3.849$$

With degrees freedom ( df ) = 28 and the level significance of 5%, obtained t table = 2.048. Because t count (3.849) > t table (2.048), then H<sub>0</sub> is rejected and H<sub>1</sub> is accepted . This means that there is significant influence between use technology information to productivity employee .

**Table 3. t-Test Results**

- value	Table t value	Decision
3,849	2,048	Significant (H <sub>0</sub> is rejected )

Findings This in a way statistics prove that utilization technology information impact real to improvement productivity employee DAMRI Public Housing in Makassar.

Distribution response Respondent to variable use technology information (X) also shows trend positive . The majority Respondent express strong agreement or agree to question related convenience technology , capability communicate through IT, as well as his contribution in increase Power competitiveness and efficiency Work .

**Table 4. Summary Respondents to Variables Technology (X)**

No	Indicator	Agree / SS( %)
1	Technology connected with customers and stakeholders	96.7%
2	Make it easy internal coordination	96.7%
3	Process and store data automatically efficient	96.7%
4	Support Power competition and adaptation service	100%
5	Make it easier communication to various location	100%

Something similar is also seen in the distribution answer to variable productivity employee (Y). Respondent generally evaluate that technology has help increase skills , passion work , and quality settlement task .

**Table 5. Summary Respondents to Variables Productivity (Y)**

No	Indicator	Agree / SS( %)
1	Control skills technology in work	86.6%
2	Technology support improvement quality Work	100%
3	Feel light in Work blessing convenience technology	86.6%
4	Active in training development skills	100%
5	Finish work in accordance standard Company Operations	100%

From both table the can concluded that perception Respondent to benefit technology Enough high , and in empirical in line with statistical test results show influence significant to productivity .

Discussion This strengthen results study previously conducted by Agustini and Dewi (2018), which stated that utilization technology information contribute significant to performance employees in the sector services . This is show that the influence of IT on productivity No nature sectoral , but tends to be universal.

Next , the results study this is also in line with theory put forward by Davis (1989), which states that intensity , ease , and reliability the use of IT is factor important thing that determines success implementation system information in support performance organization .

However Thus , it is necessary noted that contribution technology information to productivity only by 34.6%. This indicates that although significant , IT is not the only one factor determinant productivity . Required approach comprehensive which also takes into account aspect motivation , style leadership , incentives , and conditions Work .

Implications from results This is importance management DAMRI Public Company for in a way sustainable develop infrastructure appropriate technology , provides regular IT training , as well as create culture adaptive work to digitalization .

Finally , research This give contribution empirical to development management source Power human and system information in the sector transportation public . Research this also opens opportunity For studies advanced about other factors that influence productivity in the digital age.

#### 4. Conclusion

Study This aiming For test and analyze influence use technology information to productivity employees at Perum DAMRI in Makassar. Based on results analysis quantitatively conducted through the Pearson correlation test and t-test, it was obtained proof empirical that use technology information own positive and significant relationship to improvement productivity employee. Findings study show that the more tall level utilization technology information by employees , then productivity Work they also tend to increased . Usage technology proven simplify the work process , speed up settlement tasks, and support coordination and communication inter-section in a way

more efficient. This is answer objective study as well as confirm that the hypothesis proposed in study accepted. Coefficient results determination show that technology information contribute by 34.6% against variability productivity employees. Although its influence significant, still there is more from half other factors that influence productivity, such as motivation work, training, leadership and environment work, which is not investigated in studies This. Implications from study This show that organizations, especially in the sector service public like DAMRI, it is necessary optimize utilization technology information as part from the improvement strategy performance. Not enough only provide infrastructure technology, but also needed training sustainable For increase employee digital literacy and ensure technology used in a way effective. Limitations in study This lies in the size relative sample small, namely only 30 respondents from One DAMRI branch. In addition, research This only focus on one variable independent so that Not yet covers other non- technological factors that may more complex in influence productivity employee. For study Next, it is recommended that you do with more coverage wide Good in a way geographical and also amount respondents, as well as consider other variables such as motivation work, style leadership, reward systems, and culture organization. Research qualitative or method mixture can also be give a better picture deep related perception employee to implementation technology. In general overall, research This give contribution important for development management source Power human and system information in the organization sector public. Findings This confirm that technology information No only tool help administrative, but also a instrument strategic in push efficiency, effectiveness and productivity employee.

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