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2 **THE EFFECT OF ORGANIZATIONAL CHANGE AND HUMAN RESOURCE COMPETENCE ON**
3 **WORK PRODUCTIVITY.**
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5

6 ***Abstract:***

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8 This study aims to examine the effect of organizational change and human resource competence on work
9 productivity, both partially and simultaneously. The research was conducted among employees in the footwear
10 industrial cluster in Cibaduyut, Bandung City, West Java Province, Indonesia. A total of 67 employees were selected
11 as the sample using a simple random sampling technique. Data were analyzed using multiple regression analysis.
12 The results indicate that several footwear companies have implemented organizational structural changes in
13 response to environmental shifts driven by technological advancements. These changes have led to job redesign,
14 requiring enhanced human resource competencies in certain functional areas. Furthermore, the findings from the
15 explanatory analysis reveal that both organizational change and human resource competence have a significant
16 effect on work productivity, both partially and simultaneously.
17

18 ***Key words:-***

19 Organizational Change, Human Resource Competence, Work Productivity.
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23 **Introduction:-**

24 In the era of Industry 4.0, characterized by digitalization, business activities are increasingly conducted online. As a
25 consequence of technological advancement, markets for goods and services have expanded significantly. Many
26 companies are growing and striving to achieve their business objectives successfully. Firms are competing to
27 capture larger market shares, and to remain competitive, they are required to enhance their services through
28 organizational change. Technological development has also contributed to the emergence of leading firms within
29 their respective industries.
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31 The success of an organization in achieving its objectives depends on its ability to establish mechanisms that
32 enhance value creation by effectively utilizing all assets, potentials, and human resources. Organizations with low
33 productivity levels will gradually lose competitiveness in the global market. Successful companies must possess the
34 capability to manage human resources effectively in order to improve productivity. Efforts to achieve high
35 productivity require attention to several factors, one of which is human resource competence.

36 Indonesia is the largest country in Southeast Asia; however, its labor productivity remains lower than that of
37 Singapore, Malaysia, and Thailand (Bangun, 2021). To sustain economic growth, Indonesia can no longer rely
38 solely on traditional sources of comparative advantage, such as low-cost labor and natural resources. Instead, it must
39 develop dynamic comparative advantages, particularly through high-quality, productive, and professional human
40 resources. Low productivity is often associated with the level of education, as higher educational attainment is
41 generally assumed to lead to higher productivity.
42

43 Human resources constitute a critical factor of production that significantly influences organizational productivity.
44 Therefore, companies strive to recruit and develop human resources to achieve organizational outcomes. Work
45 productivity is a key objective for every company in maintaining or improving organizational performance. It serves
46 as an important measure of organizational success in achieving its goals. Understanding work productivity is closely
47 related to the efficiency and effectiveness of human resource utilization in accomplishing predetermined objectives.
48 Various strategies are implemented to influence and improve work productivity.
49

50 Previous studies have highlighted the importance of organizational change in enhancing efficiency and effectiveness
51 to achieve higher productivity. Intensifying business competition requires companies to implement organizational
52 changes across multiple aspects, including systems and work mechanisms. Technological advancements may lead to
53 changes in work systems, requiring companies to redesign jobs. Organizations are also required to revise career
54 development programs, particularly when job structures are not yet clearly defined. Well-implemented career

55 development programs can provide a strong foundation for workforce planning, enabling employees to develop
56 realistic career plans aligned with organizational needs and priorities, which ultimately impacts work productivity.
57

58 Survey findings indicate that low work motivation and job uncertainty contribute to reduced productivity, thereby
59 necessitating organizational change. Even organizations that have effectively managed their resources still face
60 challenges that require job improvement and redesign. Organizational change can mitigate threats of declining
61 productivity and support continuous improvement initiatives.

62 Another critical factor contributing to increased work productivity is human resource competence. Consequently,
63 many companies place significant emphasis on developing their human resources. Rapid technological advancement
64 has intensified competition among firms, prompting the adoption of various strategies to compete in the global
65 market. In this context, organizations must adapt by enhancing employees' knowledge and skills to improve work
66 performance. Human resource competence has become an essential requirement for achieving work productivity.
67 Individuals possessing specialized knowledge and skills in specific fields are more likely to achieve superior work
68 outcomes. Therefore, this study aims to analyze the effect of organizational change and human resource competence
69 on work productivity.

70 **Literature Review:-**

71 **Organizational Change**

72 In the era of Industry 4.0, characterized by rapid digitalization, business activities are increasingly conducted online.
73 Because of technological advancement, markets for goods and services have expanded significantly. Many
74 companies are now growing and striving to achieve their business objectives more effectively. In this competitive
75 landscape, organizations continuously compete to secure larger market shares. To remain competitive, companies
76 are required to enhance service quality through organizational transformation. Technological development has also
77 played a crucial role in enabling companies to evolve into major players within their respective industries.
78

79 The success of an organization in achieving its objectives largely depends on its ability to establish mechanisms that
80 generate added value by optimizing the use of assets, potential, and human resources. Organizations with low
81 productivity levels will gradually lose their competitive advantage in the global market. Therefore, successful
82 companies must possess the capability to effectively manage human resources in order to improve productivity.
83 Efforts to achieve high productivity must consider several key factors, one of which is human resource competence.
84

85 Indonesia is the largest country in Southeast Asia. However, its labor productivity remains lower compared to
86 countries such as Singapore, Malaysia, and Thailand (Bangun, 2021). To sustain economic growth, Indonesia can no
87 longer rely solely on traditional sources of comparative advantage, such as low-cost labor and abundant natural
88 resources. Instead, the country must develop dynamic comparative advantages, particularly through high-quality,
89 productive, and professional human resources. Low productivity is often associated with education levels, as it is
90 generally assumed that higher levels of education contribute to greater productivity potential.
91

92 Human resources represent a critical production factor that significantly influences organizational productivity.
93 Consequently, companies seek to recruit and develop human capital to achieve desired organizational outcomes.
94 Work productivity is a primary target for organizations aiming to maintain or enhance their performance. It serves as
95 an important indicator of a company's success in achieving its goals. Understanding work productivity involves
96 assessing the efficiency and effectiveness of human resource utilization in fulfilling organizational objectives.
97 Various strategies have been implemented to improve work productivity.
98

99 Previous studies have highlighted the importance of organizational change in enhancing efficiency and effectiveness
100 to achieve higher productivity. Increasingly intense business competition requires companies to implement
101 organizational changes across multiple aspects, including work systems and operational mechanisms. Technological
102 advancements often lead to changes in work systems, requiring organizations to redesign job structures.
103 Additionally, organizations are expected to improve employee career development programs, particularly as current
104 job structures are often not well-defined. Well-implemented career development programs can provide a strong
105 foundation for workforce management, enabling employees to develop realistic career plans aligned with
106 organizational needs and priorities, ultimately contributing to improved productivity.
107

108 Survey findings indicate that low employee morale and job uncertainty, which contribute to decreased productivity,
109 necessitate organizational change. Even organizations that have effectively managed their resources still face areas

110 requiring improvement and job redesign. Organizational change plays a crucial role in mitigating the risk of
111 declining productivity and supporting the implementation of continuous improvement programs. Another key factor
112 contributing significantly to increased work productivity is human resource competence. For this reason, many
113 companies place strong emphasis on the quality of their human capital. Rapid technological advancements have
114 intensified competition among organizations, prompting the adoption of various strategies to succeed in the global
115 market. In this context, companies must continuously adapt by enhancing employees' knowledge and skills to
116 improve their work capabilities. Human resource competence has become a fundamental requirement in achieving
117 optimal productivity. Individuals who possess specialized knowledge and skills in specific fields are more likely to
118 achieve superior performance outcomes. This study aims to analyse the influence of organizational change and
119 human resource competence on work productivity.

121 **Human Resource Competence**

122 Human resource (HR) competence refers to the fundamental characteristics possessed by individuals that enable
123 them to perform effectively and excel in their work. It encompasses an integrated combination of knowledge, skills,
124 attitudes, and personal attributes required to achieve success in a given job. Such competence guides what tasks
125 should be performed, what knowledge must be acquired, and how work can be executed in the most effective
126 manner. Furthermore, this concept is closely associated with measurable standards that can serve as benchmarks,
127 allowing competencies to be systematically enhanced through training and development programs recognized at
128 general, national, and international levels. Therefore, human resources must possess a set of competencies aligned
129 with labor market demands to effectively support the realization of an organization's vision and mission.

130
131 HR competence is also applicable in various technical and operational contexts, including the use of production
132 equipment and machinery. It involves the ability to assemble, disassemble, repair, maintain, and optimize the
133 functionality of machines and tools. Additionally, it enables individuals to accurately identify the appropriate
134 equipment required to complete specific tasks or produce particular goods and services. Beyond that, competence is
135 essential in assessing an individual's capability to design, integrate, and assemble components into high-value
136 products.

137
138 Competence is widely recognized as an underlying human characteristic that can be used to predict job performance
139 effectiveness (Siswanto, 2013). In the context of Industry 4.0, HR competence extends to the ability to manage and
140 adapt to digitally driven transformations in organizational resources. This capability is crucial for evaluating the
141 readiness of human resources in facing the challenges of the Industry 4.0 era. Measurements of organizational or
142 employee readiness typically encompass six key dimensions: technology, industry sector, software lifecycles,
143 transversal skills, proficiency, and job profiles (Fitsilis et al., 2018).

145 **Work Productivity**

146 In general, productivity is commonly defined as the relationship between inputs and outputs generated by a system
147 relative to the resources utilized. Outputs may take the form of goods or services resulting from production
148 processes, while inputs consist of human and physical resources employed within those processes. Accordingly,
149 improving productivity requires a system to produce a greater quantity or higher quality of goods using the same
150 resources, or to generate the same level of output with fewer resources. In this sense, productivity enhancement
151 refers to an increase in the ratio of outputs to inputs.

152
153 According to Bernolak (1997), productivity is concerned with both the quantity and quality of outputs produced
154 from the resources utilized. The European Association of National Productivity Centres (EANPC, 2005) defines
155 productivity as the efficient and effective use of production factors in generating goods and services. Efficiency
156 refers to performing tasks in the correct manner by optimizing resource utilization to achieve desired outputs
157 (Grünberg, 2004). In contrast, effectiveness relates to the extent to which outputs meet customer requirements
158 (Neely et al., 1995). Thus, effectiveness emphasizes the achievement of intended goals, whereas efficiency focuses
159 on the processes and means employed.

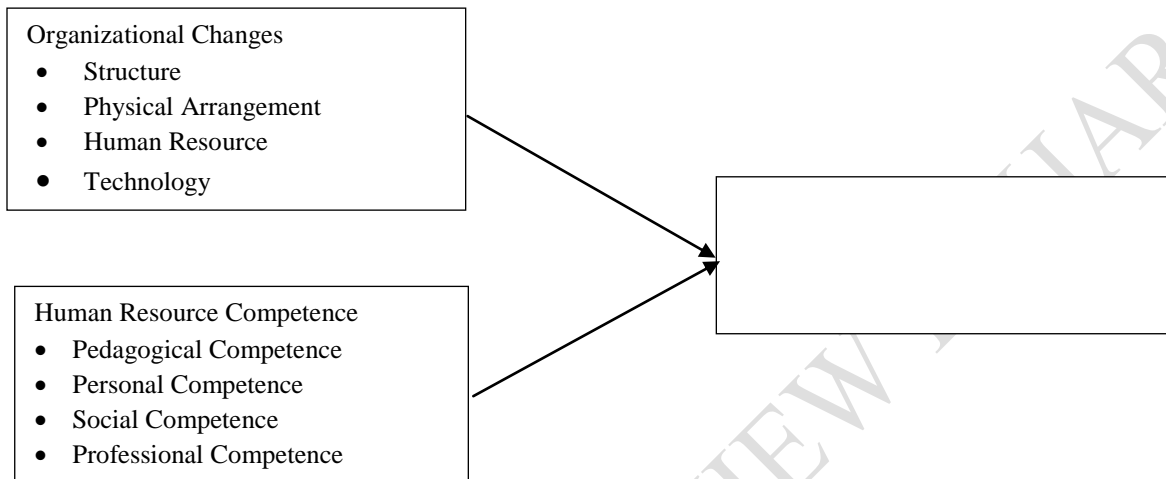
160
161 Bhatti (2007) and Qureshi (2007) conceptualize productivity as a performance measure that incorporates both
162 efficiency and effectiveness. It may also be understood as the ratio between inputs and outputs, or as the productive
163 capacity of employees within an organization. In this context, productivity reflects the relationship between the
164 quantity of inputs and outputs within a clearly defined process. The sustainability and growth of a business are
165 highly dependent on the productivity levels of its workforce. Furthermore, Yesufu (2000) asserts that the prosperity

166 of a nation, along with the social and economic well-being of its citizens, is determined by the efficiency and
167 effectiveness of its various subsystems.

169 **Research Model**

170 Based on the literature review, the proposed research model can be conceptualized in Figure 1.

171 **Figure 1: Research Model.**



181 **Hypothesis:-**

182 Drawing upon this model, the study formulates the following hypotheses:

- 183 1. Organizational change has a significant effect on work productivity.
- 184 2. Human resource competence has a significant effect on work productivity.
- 185 3. Organizational change and human resource competence simultaneously have a significant effect on work
186 productivity.

188 **Research Methodology:-**

189 Cibaduyut is a well-known footwear production center located in Bandung, West Java Province, Indonesia.
190 According to data from the West Java Department of Trade, there are 67 shoe artisans operating within the
191 Cibaduyut area. To determine the number of respondents, this study employs a saturated sampling technique, in
192 which all members of the population are included as respondents. Accordingly, the total sample size consists of 67
193 participants. Data collection was conducted through the distribution of structured questionnaires to all respondents.

195 To analyze the data, this study applies multiple regression analysis. Multiple regression is a linear regression model
196 that involves more than one independent variable. This analytical approach is used to examine and predict the extent
197 to which one or more independent variables (X) influence the dependent variable (Y). The general form of the
198 multiple linear regression model can be expressed as follows:

$$199 Y = a + b_1X_1 + b_2X_2$$

201 Y = Work Productivity

202 a = Intercept

203 b₁ = Regression coefficient of Organizational Changes

204 b₂ = Regression coefficient Human Resource Competence

205 X₁ = Organizational Changes

206 X₂ = Human Resource Competence

208 **Result And Discussion:-**

209 **Validity and Reliability Testing**

210 Validity testing in this study was conducted using the Pearson Product-Moment Correlation (PMP) analysis. Each
211 variable consists of a set of questionnaire items, for which the calculated correlation coefficient (*r* calculated) was

212 compared with the critical value (r table) at a significance level of $\alpha = 0.05$ and degrees of freedom ($df = n - 1$). An
 213 instrument is considered valid when the correlation coefficient satisfies the criterion (r calculated $\geq r$ table)
 214 (Suliyanto, 2006:149). The r calculated values were obtained using Microsoft Excel and IBM SPSS Statistics 26.

215
 216 For the three variables examined in this study, the results are as follows. The Organizational Change variable,
 217 consisting of 12 indicators, produced an r table value of 0.523, with r calculated values presented in Table 1. The
 218 statistical analysis indicates that all indicators are valid. The Human Resource Competence variable comprises 15
 219 indicators, yielding an r table value of 0.457, with corresponding r calculated values shown in Table 2. The results
 220 confirm that all questionnaire items are valid. Furthermore, the Work Productivity variable includes 19 indicators,
 221 with an r table value of 0.399 and r calculated values reported in Table 3. Based on the statistical findings, all items
 222 are deemed valid.
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 224

Table 1. JobSatisfactionValidity

Item n=12	r_{table}	$r_{calculated}$	Cronbach's Alpha if Item Deleted
PO1	0,523	.769	Valid
PO2	0,523	.849	Valid
PO3	0,523	.817	Valid
PO4	0,523	.851	Valid
PO5	0,523	.862	Valid
PO6	0,523	.794	Valid
PO7	0,523	.861	Valid
PO8	0,523	.849	Valid
PO9	0,523	.825	Valid
PO10	0,523	.865	Valid
PO11	0,523	.834	Valid
PO12	0,523	.745	Valid

Table 2. Human Resource Validity

Item n=15	r_{table}	$r_{calculated}$	Decision
KSDM1	0,457	.584	Valid
KSDM2	0,457	.793	Valid
KSDM3	0,457	.547	Valid
KSDM4	0,457	.733	Valid
KSDM5	0,457	.745	Valid
KSDM6	0,457	.671	Valid
KSDM7	0,457	.475	Valid
KSDM8	0,457	.497	Valid
KSDM9	0,457	.542	Valid
KSDM10	0,457	.558	Valid
KSDM11	0,457	.657	Valid
KSDM12	0,457	.468	Valid
KSDM13	0,457	.476	Valid
KSDM14	0,457	.479	Valid
KSDM15	0,457	.458	Valid

Table 3. Work Productivity

Item n=19	r_{table}	$r_{calculated}$	Decision
Kin1	0,399	.798	Valid
Kin2	0,399	.784	Valid
Kin3	0,399	.851	Valid
Kin4	0,399	.827	Valid
Kin5	0,399	.834	Valid
Kin6	0,399	.773	Valid

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Kin7	0,399	.818	Valid
Kin8	0,399	.841	Valid
Kin9	0,399	.788	Valid
Kin10	0,399	.810	Valid
Kin11	0,399	.806	Valid
Kin12	0,399	.830	Valid
Kin13	0,399	.833	Valid
Kin14	0,399	.800	Valid
Kin15	0,399	.837	Valid
Kin16	0,399	.777	Valid
Kin17	0,399	.804	Valid
Kin18	0,399	.834	Valid
Kin19	0,399	.590	Valid

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Reliabilitas

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To assess the reliability of each variable, the results can be observed in Table 7, particularly through the **Cronbach's Alpha if Item Deleted** values. An instrument is considered reliable if it achieves a coefficient greater than 0.80 (Sekaran, 2006). Based on the statistical analysis, the Organizational Change variable demonstrates a Split-Half Coefficient of 0.958, indicating that all questionnaire indicators are highly reliable.

Similarly, the Human Resource Competence variable yields a Split-Half Coefficient of 0.834, suggesting that all indicators within this variable are reliable. Furthermore, the Work Productivity variable shows a Split-Half Coefficient of 0.701, which also confirms that all questionnaire items are reliable. Overall, the findings indicate that all variables, comprising a total of 78 items, meet the reliability criteria, as presented in Table 4.

Table 4. Reliability

Variabel	Item Count	Split-Half Coefecient	Remarks
Perubahan Organisasi	12	0,958	Reliabel
KompetensiSumber Daya manusia	15	0,834	Reliabel
ProduktivitasKerja	19	0,701	Reliabel

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243

Correlation Among Variables

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The statistical results indicate that organizational change and human resource competence are significantly associated with work productivity.

Table 5. ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	99.340	2	49.670	3.443	.038 ^b
	Residual	923.406	64	14.428		
	Total	1022.746	66			

a. Dependent Variable: Work Productivity

b. Predictors: (Constant), Human Resource Competence, Orgnizational Changes

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The ANOVA results reveal a significance level of 0.038 ($p < 0.05$), leading to the rejection of the null hypothesis (H_0). This indicates that the relationships among the variables in this study are statistically significant.

Tabel 6. Coefficients^a

Model		Unstandardized Coefficients			t	Sig.
		B	Std. Error	Beta		
1	(Constant)	26.514	4.141		6.403	.000
	Organizational Changes	.011	.049	.027	.228	.821
	Human Resource Competence	.163	.064	.307	2.563	.013

a. Dependent Variable: Work Productivity

251
252 As presented in Table 6, the results of the multiple linear regression analysis yield the following equation:

$$Y = 26,514 + 0,011X_1 + 0,163X_2$$

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254
255 The multiple linear regression equation indicates that when both Organizational Change and Human Resource
256 Competence are equal to zero, the level of Work Productivity is 26.514. The regression coefficient for
257 Organizational Change is 0.011, which implies that, holding Human Resource Competence constant, a one-unit
258 increase in Organizational Change leads to an increase of 0.011 units in Work Productivity. Similarly, the regression
259 coefficient for Human Resource Competence is 0.163, indicating that, with Organizational Change held constant, a
260 one-unit increase in Human Resource Competence results in an increase of 0.163 units in Work Productivity.

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Tabel 10. Model Summary

R Square	Adjusted R Square
.097	.069

Predictors: (Constant), Human Resource Competence, Organizational Changes. .a
.b

262
263 Based on the statistical results, the p-value for the Organizational Change variable is 0.821, which exceeds the
264 significance threshold of 0.05, indicating that the null hypothesis (H_0) is accepted. This finding suggests that
265 Organizational Change does not have a statistically significant effect on Work Productivity. In contrast, the p-value
266 for the Human Resource Competence variable is 0.013 ($p < 0.05$), leading to the rejection of H_0 . This indicates that
267 Human Resource Competence has a significant effect on Work Productivity. Furthermore, Human Resource
268 Competence contributes approximately 9.7% to Work Productivity, while the remaining 90.3% is explained by other
269 variables not included in this model.

270
271 Interestingly, the findings also highlight that Organizational Change can play an important role in influencing Work
272 Productivity in a broader organizational context. Organizational structure represents a critical system that must be
273 carefully managed. Changes in the organizational environment—such as technological advancements, economic
274 conditions, and socio-cultural dynamics—necessitate adjustments in organizational structure. As a result,
275 organizational structure is inherently dynamic and flexible, adapting to evolving circumstances.

276
277 Technological development, in particular, has significantly transformed work systems, requiring companies to
278 redesign jobs and transition from manual processes to digital systems. In the case of several footwear industries in
279 Cibaduyut, Bandung, organizational restructuring is frequently undertaken in response to technological changes.

280
281 At present, organizations across industries face increasing challenges in building their capacity to manage change
282 effectively. All functional areas within an organization are subject to transformation. The organizational
283 environment can be broadly categorized into three key components: internal environment, external environment, and
284 the interface between them. External factors include social change, societal structure, culture, technology,
285 demographics, politics, and economic conditions. Meanwhile, internal factors encompass human resource
286 conditions, organizational culture, communication systems, and work systems.

287
288 Improving productivity requires a comprehensive analysis of factors related to employee performance outcomes.
289 Accordingly, organizations have implemented competency-based programs to ensure alignment between
290 organizational goals and individual objectives. Human Resource Competence can be classified into core
291 competencies, role competencies, and functional (technical) competencies. Functional competencies enable
292 employees to perform technical tasks independently, while core and role competencies emphasize the ability to
293 collaborate effectively within teams.

294
295 **Conclusion:-**

296 Based on the results of the descriptive and explanatory analyses, several conclusions can be drawn. The
297 descriptive findings indicate that changes in organizational structure frequently occur as a consequence of
298 technological advancements that transform work systems. As a result, companies are required to redesign their
299 work systems, compelling employees to adapt to new ways of working.

300
301 The results of hypothesis testing reveal that Organizational Change and Human Resource Competence jointly
302 influence Work Productivity, both partially and simultaneously. However, when examined individually,
303 Organizational Change shows a positive but not statistically significant effect on Work Productivity. This
304 suggests that organizational change alone does not substantially contribute to improving productivity levels.

305
306 In contrast, Human Resource Competence demonstrates a significant positive effect on Work Productivity. This
307 finding indicates that improvements in employee competence are a key driver in enhancing productivity. In
308 response to environmental changes—particularly technological developments—employees are required to
309 continuously adapt to new work systems, further emphasizing the importance of developing relevant
310 competencies.

311 **Recommendation:-**

312 Based on the conclusions of this study, several recommendations can be proposed for each variable examined.
313 Regarding Organizational Change, companies are advised to implement physical restructuring, particularly by
314 redesigning office layouts to align with new ways of working. In addition, to support the transition toward digital
315 work systems, employees should continuously update their knowledge and skills in accordance with evolving
316 technological demands. Regarding Human Resource Competence, organizations should prioritize training and
317 development programs to enhance employees' ability to adapt to digital work systems in the Industry 4.0 era.
318 Providing professional certification programs is also recommended to strengthen employees' expertise and
319 competencies in their respective fields. Furthermore, employees are encouraged to continuously improve their work
320 performance in line with their individual competencies, thereby contributing to overall organizational productivity.

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