www.bircu-journal.com/index.php/birci
Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Humanities and Social Sciences
ISSN 2615-3076 Online)
ISSN 2615-1715 (Print)
Budapest Institute

The Effect of Digitalization in the Workplace on Employee Performance Mediated By Employee Attachment (Study on Employees of the Center for Product Processing Research and Marine and Fisheries Biotechnology, Central Jakarta)

Indrihastuti Sulistianingtiyas[1], Indi Djastuti[2]
[1,2]*Faculty of Economics and Business, Universitas Diponegoro, Indonesia*
indrihastuti.s@gmail.com, indidjastuti18@gmail.com

Abstract

Digitization in the workplace based on technology activities is leading to new ways of working that organizations need. In a digital work environment, individual work styles have an effect on overall efficiency and performance. The implementation of digitization in the workplace was introduced as a performance improvement, but the complexity of learning requires extra time and willingness of employees to learn new technologies. The purpose of this study was to examine and analyze the effect of digitization in the workplace on employee performance mediated by employee engagement. The population in this study was ASN BBRP2BKP with a total of 92 people. This study uses a survey method for collecting descriptive quantitative data with questionnaires and census techniques on all members of the population. The analysis technique uses Partial Least Squares (PLS). The results of this study indicate that digitization in the workplace has a positive and significant effect on employee performance which is mediated by employee engagement. The managerial implication of this research is that digitization in the workplace increases employee performance expectations thereby increasing work productivity, fostering good employee attitudes towards the use of technology, increasing employee self-efficacy in completing work, encouraging employees to take initiative, updating skills, creative solutions, active participation, new challenges, as well as enabling employee engagement in an integrated and sustainable way of thinking with passion and determination to work with dedication in doing work seriously.

Keywords
workplace digitization;
employee engagement;
employee performance

I. Introduction

In recent years, digitalization has increased marked by the use of information and communication technology in every area of life. The introduction of digital technology implies a major change in the way it works and interacts with the environment. The vast amounts of digital data available for organization can be a source of new value generation with the ultimate goal of improving organizational performance. The digitization of businesses can drive the development of value activities, so employees can expect to improve their performance. Ideas related to improving the performance of employees and companies, should encourage a change of focus that facilitates the process of business digitization and value creation from digital (Martínez-Caro *et al*., 2020).

According to Cijan *et al.*, (2019), rapidly growing digitalization will have a major impact on processes and work environments and has increased the tempo of daily life. Work is organized more dynamically and makes stakeholders adapt to rapid changes and

stay connected and even work remotely. This dynamic environment brings demands for an agile response from support services within the organization and work environment that can accommodate change easily. Good digital infrastructure is an important supporter of corporate productivity (De Bruyne & Gerritse, 2018).

Chan *et al*., (2021), revealed that digitalization in the workplace poses new challenges in increasing employee engagement, encouraging organizational operations to change to be more complex, demanding speed of adapting to technological developments, encouraging new initiatives to reduce costs, and increasing company profitability. One of the main topics related to productivity and performance is how work and work arrangements are tailored to the individual. In a digital work environment, individual habits that are manifestations of an individual's work style have an effect on efficiency and overall performance (Vuori *et al.* , 2020) .

Some empirical studies conducted by Zhou *et al*., (2021); Ricci *et al*., (2020); Martínez-Caro *et al*., (2020); Truant & Broccardo (2021); Ratna & Kaur (2016); Kuusisto, (2015); Vuori *et al*., (2020); Okkonen *et al.*, (2019); Tan *et al*., (2010) analyzed the state of digitalization and its implementation within the company, which mentioned digitalization in the workplace has a positive effect on performance. This survey-based study explores the diffusion of digitization, the advantages and difficulties in the practical transition to digitalization and its impact on performance. During the transformation of technology, processes, culture, and enterprise skills, early adopters realized the benefits of digitalization in the future but the implementation process is still in the embryonic stage (Truant & Broccardo, 2021). This study aims to test and analyze the influence of digitalization in the workplace on employee performance mediated by employee attachment.

II. Review of Literature

2.1 The Effect of Digitalization in the Workplace on Employee Performance

Digitalization is a growing phenomenon that affects business strategies, structures, and processes, and has potential benefits for performance. Many companies recognize the benefits and effects of positive performance (Truant & Broccardo, 2021). People state that work is better served by adequate tools and better if each individual can set their own pace and adapt to their work environment. The work environment digital allows remote work, as resources are available almost anywhere from a laptop or *smartphone*. Communication is the process of delivering messages by someone to other people to tell, change attitudes, opinions or behavior either directly orally or indirectly through the media (Hasbullah, et al: 2018)**.** The digital work environment is based on implicit expectations of short waiting times as well in communication activities, it leads to a vicious cycle of excessive communication and fragmentation of tasks. People who work with high interdependence settings need explicit norms to establish work habits. Individual habits should resonate with organizational conventions. Intraorganization arrangements make it possible to establish the norms of productive work habits (Vuori *et al*., 2020).

2.2 The Effect of Digitalization in the Workplace on Employee Attachment

According to Dittes *et al*., (2019) facilitating digital work is not only achieved by choosing new information technologies but also by shifts in traditional structures, organizational cultures, and ways of thinking. At the same time, organizations need to consider how to implement digital work in a way that ensures maximum employee uptake. The relationship between digitalization in the workplace and employee attachment can be

described in the concept of Job-Demands-Resources (JD-R) or known as the demands of job-resources which according to Bakker & Demerouti, (2007) is assessing job requirements related to physical, psychological, social or organizational elements of work that require psychological effort or skills in the form of emotional and cognitive abilities and / or Continuous physical skills related to the psychological and/or physiological costs that play a role in achieving work goals. Work resources can restore performance at a broad organizational level (e.g., salary, career opportunities, job security), interpersonal and social relationships (e.g., participating in decision-making and determination), and task levels (e.g., feedback).

A resource-rich work environment encourages employees' willingness to dedicate their efforts and skills to job tasks. Employees are more attached to the workplace. In such an environment, the task will most likely be completed successfully and the work goals will be achieved. Thus, work resources tend to encourage employee attachment (i.e., a satisfactory state of enthusiasm, devotion, and absorption through a motivational process that meets the basic needs of autonomy, connectivity, and competence, and increases the likelihood of achieving their own work goals (Schaufeli *et al*., 2009).

The results of abdullahi *et al*., (2021) also emphasize that attachment creates job satisfaction and staff happiness so as to encourage improved employee performance.

2.3 The Effect of Employee Attachment on Employee Performance

Employee attachment is an attitude at work that encourages all followers of the organization to give their excellence every day, committed to their organizational goals and values. Organizations always remember that employees who are hotat well in an organization will lead to productivity in the workplace, resulting in higher satisfaction and developmentof sales and profits in the company (Chanana & Sangeeta, 2021).

Employee performance can be seen in terms of employee attachment. Employees who consistently try to give their best to complete their roles are employees who are bound. Employees who are fully attached and enthusiastic about their work, will care about the future of their organization and are willing to invest their best efforts to see their organization succeed. Given the positive consequences on work-related outcomes, then organizations in the competitive business world need to ensure that their human resources are fully bound. Attachments can lead to improved performance as a result of a variety of factors, one of which is innovative behavior that can be the result when employees are fully attached to their work and with their organization. One of the main reasons people innovate in the workplace is to bring about improved performance. Increased efficiency and work performance increase the competitiveness and success of an employee, which ultimately leads to better organizational competitiveness (Gull *et al*., 2020).

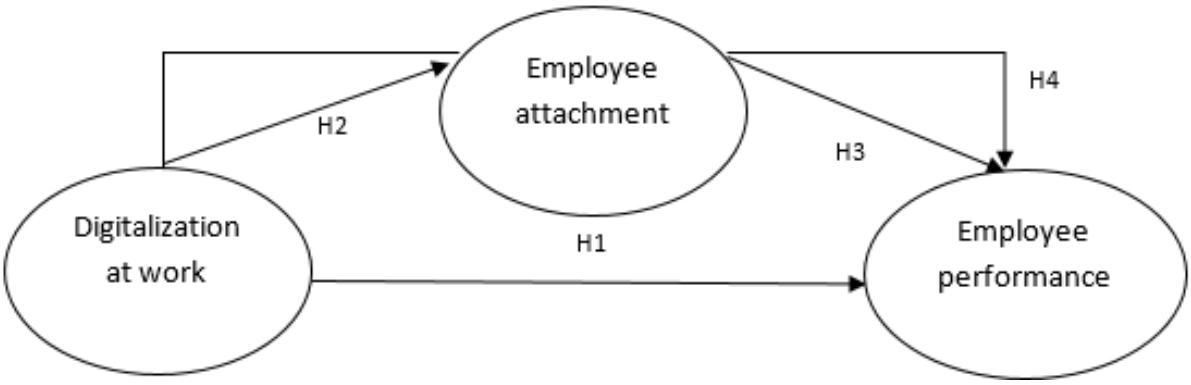

Figure 1. *Theoretical Frame of Thought*

H1: Digitalization in the workplace has a positive effect on employee performance
H2: Digitalization in the workplace has a positive effect on employee attachment
H3: Employee attachment has a positive effect on employee performance
H4: Employee attachment mediates the influence of digitalization in the workplace on employee performance

III. Research Method

This research uses quantitative *methods with Partial Least Squares* (PLS) analysis techniques. According to Ghozali & Latan (2015) PLS is one of the methods developed to test/confirm weak theories and data, for example a limited number of samples by assuming that all sizes are useful explanatory variances so that the approach to estimating latent variables is viewed as a linear combination of indicators and prevents uncertainty problems.

The population in this study is ASN BBRP2BKP which amounts to 92 people. Sampling techniques use saturated sampling techniques or censuses in all members of the population because the sample population is small and can make generalizations with a small error level. Researchers used quantitative descriptive data collection survey methods with questionnaires. Surveys through questionnaire sharing are data collection techniques characterized by using a list of questions to respondents Sugiyono (2016).

Items for all constructs are measured using the Likert scale ranging from (1) strongly disagreeing to (7) strongly agreeing (Retnawati, 2016). Digitalization in the workplace is measured from the *Unified Theory Of Acceptance And Use Of Technology* (UTAUT) model by Venkatesh *et al.* , (2003). Employeeemployment was measured using *the Adaptation of Individual Work Performance Questionnaire* (IWPQ) in Indonesian (Widyastuti & Hidayat, 2018), while the employee attachment variable was measured using a nine-item *Utrecht Work Engagement Scale* questionnaire. (UWES) shortened to UWES-9 (Schaufeli *et al*., 2006).

IV. Results and Discussion

4.1 Results

Table 1. Overview of Research Objects

Demographic Characteristics	Category	Frequency	Presented (%)
Gender	Man	47	51
	Woman	45	49
Age	<35 years old	11	12
	35 - 45 years old	55	60
	>45 years old	26	28
Education	<Diploma	13	14
	Diploma	7	8
	Bachelor	18	20
	Master	38	41
	Doctor	16	17
Working time	<3 years old	0	0
	4 - 6 years old	5	5
	7 – 9 years old	6	7

Demographic Characteristics	Category	Frequency	Presented (%)
	>10 years	81	88

a. Analysis of First Order Pilot Test

1. Measurement Model Testing

Testing can be done through confirmatory factors analysis (CFA) by testing the validity and reliability of latent constructs, followedby evaluation of structural models and significance testing to test the influence between constructs or variables (Ghozali & Latan, 2015). The Outer Weight First Order Pilot Test model can be seen in Figure 2.

Description:

X1 : Performance expectations
X2 : Individual attitudes on the use of technology
X3 : Social influence
X4 : Facilitating conditions
X5 : Self-efficacy
X6 : Anxiety
Y1 : Task performance
Y2 : Contextual performance
Y3 : Counterproductive Work Behavior
Z1 : Spirit
Z2 : Dedication
Z3 : Absorption
X1.1 : Increase productivity
X1.2 : Salary increases opportunities
X2.1 : System usage
X2.2 : More interesting work
X3.1 : Influence of others
X3.2 : Help from management
X4.1 : Knowledge
X4.2 : System suitability
X5.1 : Get the job done
X5.2 : Task delegation
X5.3 : Work completion time
X6.1 : Fear of operation
X6.2 : System bullying
Y1.1 : Planning
Y1.2 : Priority
Y1.3 : Settlement
Y1.4 : Time management
Y2.1 : Initiative
Y2.2 : Skill updates
Y2.3 : Creative solutions
Y2.4 : Extra responsibility
Y2.5 : New challenges
Y2.6 : Active participation
Y3.1 : Complaining of minor problems
Y3.2 : Creating trouble
Y3.3 : Focus on the negative aspects
Z1.1 : Energetic
Z1.2 : Spirit
Z1.3 : Determination at work
Z2.1 : Enthusiasm
Z2.2 : Inspiration
Z2.3 : Pride
Z3.1 : Strength
Z3.2 : Serious
Z3.3 : Enjoy

Figure 2. *Model outer weight first order pilot test*

The validity of all constructs is checked by their reliability, convergent validity, and discriminatory validity. In the SmartPLS program, to measure the reliability of a construct can be done with Cronbach's Alpha and Composite Reliability (Ghozali & Latan, 2015). Reliability tests are carried out to prove the accuracy, consistency, accuracy of the instrument in measuring constructs. Construction reliability in Table 1 shows Cronbach's alpha score for all constructions higher than criterion 0.7 and all composite U.S. reliability values higher than 0.8. This indicates that all variables are reliable. The AVE value of all variables is valid because it has an AVE value above 0.5. As shown in Table 1, an AVE score higher than 0.50 indicates good construction consistency (convergent validity) for each variable. Furthermore, to assess convergent validity and discriminant validity, a

confirmatory factor analysis (CFA) is carried out. Table 2 shows the results of loadings and cross loadings values of the first order pilot test variable.

Table 2. Loadings value and Cross Loadings variable first order pilot test

	X1	X2	X3	X4	X5	X6	Y1	Y2	Y3	Z1	Z2	Z3
X1.1	**0.918**	0.645	0.712	0.531	0.673	0.688	0.467	0.564	0.408	0.424	0.386	0.445
X1.2	**0.911**	0.613	0.598	0.497	0.688	0.671	0.534	0.556	0.529	0.466	0.494	0.524
X2.1	0.620	**0.936**	0.477	0.565	0.589	0.623	0.244	0.278	0.223	0.260	0.311	0.270
X2.2	0.676	**0.952**	0.681	0.624	0.710	0.719	0.367	0.415	0.325	0.312	0.451	0.406
X3.1	0.602	0.663	**0.907**	0.483	0.598	0.605	0.468	0.531	0.505	0.434	0.379	0.441
X3.2	0.685	0.432	**0.879**	0.348	0.579	0.475	0.317	0.415	0.314	0.385	0.321	0.393
X4.1	0.538	0.647	0.408	**0.946**	0.642	0.689	0.279	0.323	0.168	0.334	0.338	0.300
X4.2	0.524	0.545	0.481	**0.944**	0.637	0.666	0.308	0.264	0.109	0.336	0.279	0.412
X5.1	0.646	0.635	0.551	0.719	**0.921**	0.650	0.251	0.392	0.175	0.286	0.310	0.331
X5.2	0.702	0.502	0.631	0.435	**0.878**	0.588	0.395	0.519	0.271	0.457	0.520	0.534
X5.3	0.653	0.711	0.591	0.647	**0.883**	0.632	0.192	0.276	0.062	0.202	0.306	0.279
X6.1	0.616	0.653	0.637	0.670	0.572	**0.892**	0.440	0.452	0.325	0.633	0.569	0.558
X6.2	0.709	0.621	0.448	0.609	0.673	**0.891**	0.495	0.533	0.329	0.464	0.522	0.449
Y1.1	0.496	0.305	0.453	0.319	0.329	0.557	**0.863**	0.695	0.691	0.402	0.514	0.492
Y1.2	0.433	0.270	0.438	0.235	0.328	0.424	**0.871**	0.620	0.714	0.427	0.585	0.641
Y1.3	0.450	0.286	0.322	0.351	0.271	0.428	**0.891**	0.776	0.750	0.536	0.622	0.618
Y1.4	0.537	0.287	0.349	0.175	0.153	0.429	**0.876**	0.625	0.757	0.464	0.590	0.499
Y2.1	0.593	0.441	0.391	0.305	0.415	0.609	0.707	**0.810**	0.606	0.571	0.621	0.610
Y2.2	0.455	0.312	0.435	0.409	0.418	0.512	0.679	**0.884**	0.640	0.595	0.574	0.486
Y2.3	0.565	0.368	0.578	0.375	0.429	0.540	0.646	**0.879**	0.705	0.631	0.540	0.561
Y2.4	0.580	0.183	0.408	0.169	0.258	0.376	0.703	**0.854**	0.695	0.460	0.500	0.356
Y2.5	0.459	0.208	0.442	0.077	0.278	0.311	0.612	**0.875**	0.652	0.380	0.390	0.320
Y2.6	0.519	0.412	0.504	0.266	0.471	0.511	0.681	**0.873**	0.587	0.538	0.516	0.547
Y3.1	0.419	0.190	0.342	0.095	0.220	0.341	0.792	0.701	**0.895**	0.546	0.651	0.447
Y3.2	0.446	0.262	0.417	0.114	0.048	0.306	0.711	0.649	**0.878**	0.329	0.314	0.355
Y3.3	0.516	0.345	0.497	0.188	0.228	0.343	0.742	0.678	**0.926**	0.453	0.564	0.488
Z1.1	0.487	0.308	0.452	0.342	0.351	0.559	0.447	0.549	0.409	**0.882**	0.689	0.619
Z1.2	0.431	0.230	0.425	0.293	0.300	0.572	0.574	0.685	0.591	**0.911**	0.804	0.627
Z1.3	0.356	0.263	0.326	0.296	0.260	0.480	0.341	0.358	0.280	**0.825**	0.649	0.656
Z2.1	0.308	0.277	0.235	0.205	0.243	0.455	0.611	0.472	0.438	0.760	**0.919**	0.750
Z2.2	0.632	0.485	0.527	0.381	0.593	0.676	0.692	0.665	0.625	0.680	**0.872**	0.643
Z2.3	0.379	0.357	0.320	0.309	0.317	0.541	0.495	0.521	0.496	0.784	**0.923**	0.622
Z3.1	0.449	0.355	0.428	0.431	0.403	0.386	0.497	0.416	0.342	0.663	0.662	**0.870**
Z3.2	0.611	0.323	0.468	0.284	0.474	0.622	0.629	0.573	0.489	0.598	0.637	**0.841**
Z3.3	0.321	0.265	0.324	0.259	0.221	0.466	0.550	0.460	0.419	0.622	0.634	**0.888**

Table 2 shows that all the items in the questionnaire in this study can be perfectly extracted and have a loading factor value of >0.7. This shows that the items used in this study have a good ability to explain constructs. Then the way to test the validity of discriminants is to look at the cross-loading value of variables. The Cross Loadings value

of the first order pilot test variable indicates that all items are valid. The loading value of a construct is greater (>0.7) than the loading value the construct is against other constructs.

2. Analysis of Second Order Pilot Test

Second order construct is a construct that is reflected or formed by its latent construction dimensions (Ghozali & Latan, 2015). The data used for second order analysis is variable latent score data resulting from first Order data.

The Outer Weight Second Order Pilot Test model can be seen in the image below.

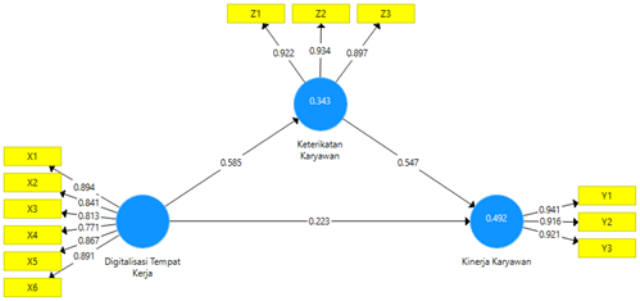

Figure 3. *Model Outer Weight Second Order*

Table 3. Second order reliability test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Digitalization at Work	0.922	0.945	0.938	0.718
Employee Attachments	0.906	0.907	0.941	0.842
Employee Performance	0.917	0.925	0.948	0.858

Table 3 shows all reliable variables because the composite reliability value is greater than 0.7 or it can also be said that Cronbach's alpha is greater than 0.6. The Average Variance Extracted (AVE) second order pilot test value indicates all valid variables because they have an AVE value above 0.5. The composite reliability value produced by all constructs is very good, namely >0.7 so that it can be concluded that all construct indicators meet reliability.

Table 4. Loadings and Cross Loadings values variable second order pilot test

	Digitalization at Work	**Employee Attachments**	**Employee Performance**
X1	**0.894**	0.543	0.604
X2	**0.841**	0.392	0.360
X3	**0.813**	0.479	0.520
X4	**0.771**	0.384	0.283
X5	**0.867**	0.432	0.344
X6	**0.891**	0.651	0.527
Y1	0.506	0.666	**0.941**
Y2	0.576	0.645	**0.916**

	Digitalization at Work	Employee Attachments	Employee Performance
Y3	0.413	0.562	**0.921**
Z1	0.527	**0.922**	0.591
Z2	0.534	**0.934**	0.664
Z3	0.550	**0.897**	0.609

The Outer Loading Factor second order pilot test value can be seen all indicators in the questionnaire in this study can be extracted perfectly and has a loading factor value of >0.5. This shows that all the indicators used in this study are valid and have a good ability to explain constructs. Cross loading second order pilot test shows that all items are valid because the loading value of a construct is greater than the loading value of the construct against other constructs.

3. Pilot Test Conclusion

Based on the results of the pilot test test, it can be concluded that all indicators are declared valid and reliable so that the indicators can be used to test the influence between variables.

b. Analisis Partial Least Squares (PLS)

1. First Order Analysis

The outer weight first order model shows each block of indicators related to its latent variables.

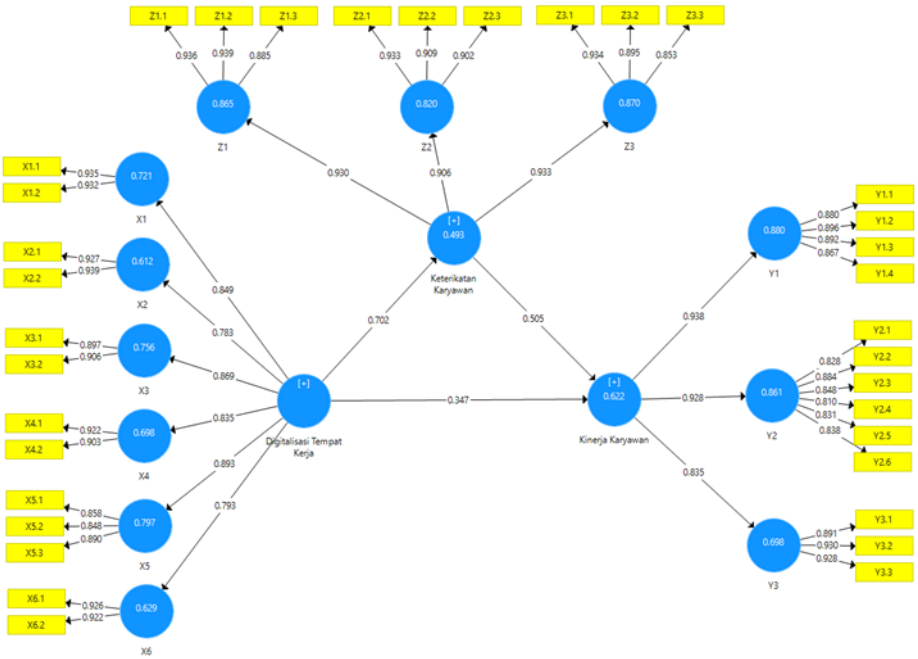

Figure 4. *Model outer weight first order*

Table 5. First order reliability test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
X1	0.853	0.853	0.931	0.872
X2	0.852	0.857	0.931	0.871
X3	0.770	0.771	0.897	0.813
X4	0.800	0.806	0.909	0.833
X5	0.832	0.834	0.899	0.749
X6	0.828	0.829	0.921	0.853
Y1	0.906	0.907	0.934	0.781
Y2	0.917	0.919	0.935	0.706
Y3	0.904	0.905	0.940	0.840
Z1	0.909	0.913	0.943	0.847
Z2	0.903	0.906	0.939	0.837
Z3	0.874	0.879	0.923	0.800

The First Order Reliability Test in Table 5 shows a composite reliability value greater than 0.7 or cronbach's alpha greater than 0.6. This indicates that all variables are reliable. The AVE first order value indicates all valid variables because it has an AVE value above 0.5.

Table 6. Loadings value and Cross Loadings variable first order

	X1	X2	X3	X4	X5	X6	Y1	Y2	Y3	Z1	Z2	Z3
X1.1	**0.935**	0.645	0.646	0.651	0.582	0.597	0.485	0.566	0.419	0.575	0.464	0.498
X1.2	**0.932**	0.534	0.640	0.647	0.632	0.565	0.458	0.543	0.416	0.656	0.517	0.563
X2.1	0.568	**0.927**	0.532	0.483	0.563	0.456	0.481	0.538	0.483	0.402	0.507	0.398
X2.2	0.611	**0.939**	0.570	0.570	0.673	0.476	0.459	0.499	0.467	0.451	0.423	0.422
X3.1	0.632	0.449	**0.897**	0.614	0.704	0.534	0.503	0.463	0.464	0.592	0.529	0.576
X3.2	0.611	0.614	**0.906**	0.627	0.711	0.547	0.635	0.555	0.592	0.543	0.593	0.669
X4.1	0.676	0.598	0.640	**0.922**	0.626	0.600	0.457	0.510	0.498	0.465	0.500	0.453
X4.2	0.589	0.427	0.615	**0.903**	0.557	0.566	0.372	0.369	0.329	0.459	0.400	0.477
X5.1	0.534	0.623	0.691	0.574	**0.858**	0.557	0.540	0.532	0.523	0.490	0.538	0.553
X5.2	0.557	0.464	0.638	0.573	**0.848**	0.571	0.375	0.397	0.367	0.504	0.428	0.497
X5.3	0.596	0.632	0.706	0.541	**0.890**	0.576	0.484	0.435	0.497	0.460	0.470	0.510
X6.1	0.554	0.443	0.568	0.625	0.634	**0.926**	0.468	0.503	0.499	0.487	0.445	0.424
X6.2	0.598	0.480	0.539	0.556	0.578	**0.922**	0.532	0.587	0.521	0.450	0.419	0.402
Y1.1	0.413	0.407	0.513	0.380	0.441	0.435	**0.880**	0.683	0.669	0.524	0.473	0.522
Y1.2	0.504	0.468	0.590	0.408	0.503	0.519	**0.896**	0.722	0.661	0.682	0.683	0.694
Y1.3	0.484	0.515	0.608	0.458	0.591	0.467	**0.892**	0.728	0.678	0.614	0.645	0.680
Y1.4	0.382	0.383	0.523	0.366	0.371	0.489	**0.867**	0.682	0.651	0.503	0.482	0.566
Y2.1	0.421	0.357	0.453	0.357	0.373	0.472	0.666	**0.828**	0.510	0.514	0.450	0.544
Y2.2	0.526	0.554	0.508	0.420	0.477	0.535	0.774	**0.884**	0.645	0.566	0.570	0.604
Y2.3	0.453	0.469	0.444	0.426	0.422	0.459	0.698	**0.848**	0.606	0.527	0.544	0.531
Y2.4	0.515	0.433	0.467	0.373	0.502	0.483	0.618	**0.810**	0.447	0.493	0.471	0.491

	X1	X2	X3	X4	X5	X6	Y1	Y2	Y3	Z1	Z2	Z3
Y2.5	0.562	0.497	0.474	0.497	0.461	0.528	0.605	**0.831**	0.435	0.581	0.590	0.513
Y2.6	0.526	0.476	0.503	0.377	0.420	0.492	0.641	**0.838**	0.502	0.609	0.553	0.545
Y3.1	0.428	0.420	0.605	0.480	0.523	0.561	0.682	0.605	**0.891**	0.552	0.510	0.569
Y3.2	0.414	0.490	0.522	0.391	0.495	0.494	0.712	0.569	**0.930**	0.418	0.454	0.461
Y3.3	0.386	0.488	0.485	0.388	0.453	0.461	0.674	0.554	**0.928**	0.503	0.545	0.488
Z1.1	0.563	0.355	0.557	0.440	0.496	0.410	0.586	0.537	0.444	**0.936**	0.671	0.766
Z1.2	0.611	0.473	0.604	0.473	0.563	0.481	0.658	0.602	0.556	**0.939**	0.746	0.790
Z1.3	0.649	0.437	0.574	0.486	0.484	0.512	0.571	0.667	0.477	**0.885**	0.640	0.711
Z2.1	0.536	0.516	0.613	0.484	0.584	0.461	0.627	0.610	0.539	0.724	**0.933**	0.750
Z2.2	0.463	0.404	0.562	0.398	0.458	0.427	0.608	0.604	0.492	0.731	**0.909**	0.675
Z2.3	0.437	0.438	0.530	0.479	0.473	0.393	0.538	0.511	0.473	0.587	**0.902**	0.668
Z3.1	0.521	0.363	0.573	0.466	0.483	0.410	0.640	0.599	0.533	0.786	0.721	**0.934**
Z3.2	0.574	0.495	0.651	0.514	0.571	0.490	0.666	0.645	0.534	0.736	0.692	**0.895**
Z3.3	0.424	0.321	0.638	0.381	0.566	0.293	0.564	0.473	0.409	0.680	0.634	**0.853**

Table 6 shows that the Outer Loading First Order Value of all items in the questionnaire in this study can be perfectly extracted and has a loading factor value of > 0.5. This shows that the items used in this study have a good ability to explain constructs. The cross-loading value of the first order is known to all valid items because the loading value of a construct is greater than the loading value of the construct against other constructs.

2. Second Order Analysis

The data used for second order analysis is latent variable score data resulting from First Order data.

3. Model Outer Weight Second Order

The outer weight model is shown in Figure 5 below:

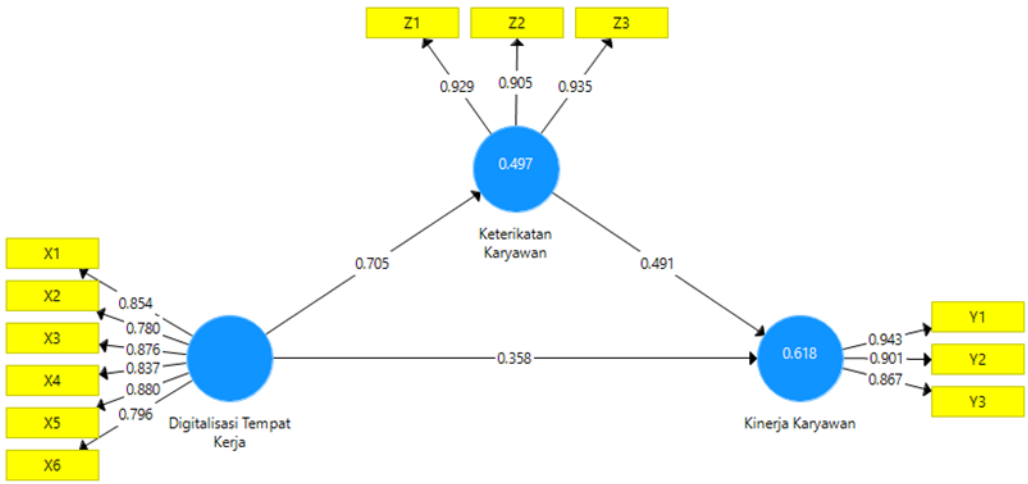

Figure 5. *Model Outer Weight Second Order*

Table 7. Second *order* reliability test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Digitalization at Work	0.915	0.920	0.934	0.703
Employee Attachments	0.913	0.913	0.945	0.852
Employee Performance	0.888	0.894	0.931	0.818

Table 8. Loadings and Cross Values Loadings variabel *second order*

	Digitalization at Work	**Employee Attachments**	**Employee Performance**
X1	**0.854**	0.633	0.573
X2	**0.780**	0.503	0.577
X3	**0.876**	0.702	0.658
X4	**0.837**	0.546	0.516
X5	**0.880**	0.619	0.590
X6	**0.796**	0.514	0.619
Y1	0.636	0.724	**0.943**
Y2	0.659	0.695	**0.901**
Y3	0.616	0.591	**0.867**
Z1	0.664	**0.929**	0.684
Z2	0.632	**0.905**	0.675
Z3	0.655	**0.935**	0.700

Table 7 shows hasil second order rability test shows, all reliable variables because the composite reliability value is greater than 0.7 or it can also be said to be reliable because cronbach's alpha value is greater than 0.6. The Average Variance Extracted (AVE) second order value indicates all valid variables because it has an AVE value above 0.5.

In Table 8, the outer loading second order value shows that all items in the questionnaire in this study can be perfectly extracted and have a loading factor value of > 0.5. This shows that the items used in this study have a good ability to explain constructs. Cross Loading value second order All items are valid because the value of loading a construct is greater than the loading value of the construct against other constructs.

c. Structural Model Testing (Inner Model) using R-Square values

Testing of structural models using PLS begins by looking at the R-Square values:

Table 9. R-Square

	R-Square	**R-Square Adjusted**
Employee Attachments	0.497	0.491
Employee Performance	0.618	0.609

Based on the R-Square value in Table 9, the following conclusions are obtained:

1. The R-Square value of the Employee Attachment variable is 0.47. Then it can be concluded that the influence of digitalization variables in the workplace on employee performance is 49.7%.

2. The R-Square value of the Employee Performance variable is 0.618. Then it can be concluded that the influence of digitalization variables in the workplace and employee attachment to employee performance is 61.8%.

d. Hypothesis Testing

Table 10. Hypothesis Testing

	Original Sample (O)		Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Information
Digitalization in the Workplace Employee Attachment→	0.705	0.694	0.081	8.700	0.000	Accepted
Digitalization at Work Employee Performance→	0.358	0.355	0.114	3.141	0.002	Accepted
Employee Attachments Employee Performance→	0.491	0.478	0.116	4.232	0.000	Accepted

Conclusion of hypothesis testing:

1. Digitalization in the Workplace has a positive and significant effect on Employee Attachment because the value of t statistics is 8,700 which is greater than t table = 1.96 and also p values of 0.000 which is smaller than 0.05.
2. Digitalization in the Workplace has a positive and significant effect on Employee Performance because the value of t statistics is 3,141 which is greater than t table = 1.96 and also p values of 0.002 which is smaller than 0.05.
3. Employee Attachment has a positive and significant effect on Employee Performance because the value of t statistics is 4,232 which is greater than t table = 1.96 and also p values of 0.000 which is smaller than 0.05.

e. Mediation Hypothesis

Employee attachment mediates the influence of Digitalization in the Workplace on Employee Performance because the value of t statistics is 3,925 which is greater than t table = 1.96 and also p values of 0.000 which is smaller than 0.05.

Table 11. Specific Indirect Effects

	Original Sample (O)	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**T Statistics (|O/STDEV|)**	**P Values**
Digitalization in the Workplace -> Employee Attachment -> Employee Performance	0.346	0.331	0.088	3.925	**0.000**

4.2 Discussion

a. The Effect of Digitalization in the Workplace on Employee Performance

Hypothesis testing results show a positive and significant relationship between digitalization in the workplace and employee performance. This can be interpreted that the implementation of digitalization in BBRP2BKP which is characterized by the interaction of digitalization of HR management and the maturity of the HR management system can significantly improve employee performance. BBRP2BKP understands how changing the way conventional systems work towards the increasingly vociferous use of digital technology is important to map the way forward for the needs of vulnerable categories of

employees. Digitalization in the workplace affects the individual habits of BBRP2BKP employees who are in line with organizational conventions so as to produce good performance achievements. In particular, there have been rapid advances in applications and technologies for human resources. BBRP2BKP employees who accept and adopt the use of digital technology and new innovations in its application, can complete the work with more efficiency so that it significantly affects the improvement of employee performance.

The results of this study support previous research conducted by *Vuori et al*. (2020) , Kuusisto (2015) and Ratna & Kaur (2016) stated that digitalization and the use of technology in the workplace have a positive effect on the performance of organizations and employees. Furthermore, the results of this study also support Truant & Broccardo 's (2021) research which reveals that the impact of digitalization is real and the main perceived benefits of digitalization on performance—including increased competitive advantage, better quality of products and services—can be considered one of the pioneers of value creation.

b. The Effect of Digitalization in the Workplace on Employee Attachment

The results of the hypothesis test showed that digitalization in the workplace, especially in BBRP2BKP, is positive and significant to employee attachment. BBRP2BKP employees who have attachments, exert their efforts towards the organization's goals to encourage organizational sustainability in the digital era. In the implementation of digitalization in the workplace, BBRP2BKP employees can remain attached while accepting the digitization of the workplace, be more open to digitalization and remain tied as long as they acquire enough skills to use new digital technologies. Innovative cultures put resources in place for employees to strengthen their attachments in the workplace. BBRP2BKP employees' bond and invest themselves in the workplace when they do meaningful work in a well-designed job in a psychologically safe environment. The results of this study support the research of Chan *et al*., (2021) which states that digitalization in the workplace as a new business model in minimizing physical contact results in organizations operating in a more volatile, uncertain, and more complex environment. Furthermore, the results of this study also support Zhou *et al.* , (2021) that the use of digital technology in the workplace helps management in laying a solid foundation to effectively stimulate employee motivation and enthusiasm.

c. The Effect of Employee Attachment on Employee Performance

Hypothesis testing results show employee attachment has a positive and significant effect on employee performance. A real aspect of employee attachment is employee performance. When BBRP2BKP employees receive a high level of attention and good training, they feel obliged to respond with a greater level of attachment, which is reflected in the quality of their work. BBRP2BKP employees who have attachments can convey their enthusiasm for work, develop and provide better product and services and have the same goals as the organization so as to show the best performance. The results of this study are in line with the research of Kumar & Pansari (2015) and Anitha; A, (2014), that fostering employee attachment is an important way to enrich performance and organizations can benefit from improving performance by strengthening bonds with their employees by making employees a priority in day-to-day operations. On the other hand, the results of this study support Burnett & Lisk's (2019) research that sophisticated employee attachment models will continue to require not only proper feedback and analysis, but also organizational awareness, understanding, and willingness to accept

change. The results showed that bound employees will try to show their best contribution to realize organizational goals, as the results of Gull *et al*., (2020) research reveals that employees' intention to realize individual goals with the organization can play an important role in overall employee performance.

d. Employee Entanglement Mediates the Influence of Digitalization in the Workplace on Employee Performance

The results showed that employee entanglement mediated the influence of digitalization in the workplace on employee performance. Based on the results of the study, it can be interpreted that BBRP2BKP employees who have an attachment to their work can support digitalization in the workplace well and have a positive impact on employee performance achievements. BBRP2BKP ensures that employees are ready to face new challenges and have made investments in order to increase employee attachment to support the implementation of digitalization in the workplace, namely in the form of providing facilities and infrastructure related to information technology and telecommunications and facilitating training and development for employees to face changes in the work system. The effect of these investments, both in the short and long term, contributes positively to employee performance. BBRP2BKP employees are consistent with personal change and the adoption of advanced technologies to improve the lives of individuals, one of the efforts supporting organizations has also shifted from more manual and paper-based methods of managing their workforce to the use of automated, sophisticated, and network-based systems.

The results of this study are in line with research conducted by Oldham & Da Silva, (2015) that digital technology shapes the creativity of ideas generated by employees and the implementation of these ideas by affecting each of these conditions. This research is also in line with the research of Jesuthasan (2017) and Ahmed (2020) which states that HR management also serves as an enabler of digital attachment in an environment where the work experience that the organization provides to all its workers, including those in non-traditional work settings, provides a competitive advantage.

V. Conclusion

Based on the results and analysis of research data that has been conducted, researchshows that digitalization in the workplace has a positive and significant effect on employee performance. This means that the digitization implemented in BBRP2BKP which is supported by the ability of employees to run the work system digitally can improve employee performance, and vice versa. The results also showed that digitalization in the workplace has a positive and significant effect on employee attachment. This means that the implementation of good digitization in BBRP2BKP can increase the attachment of BBRP2BKP employees, and vice versa. In terms of the influence of employee attachment on employee performance, the results of this research show that employee attachment has a positive and significant effect on employee performance. This means that bound employees will provide the best contribution to BBRP2BKP so as to improve employee performance, and vice versa.

The results of this study also show that employee attachment mediates the influence of digitalization in the workplace on employee performance. This means that the increasing attachment of BBRP2BKP employees can increase the adoption of digitalization in the workplace by employees so as to improve the performance of BBRP2BKP employees, and vice versa.

References

Abdullahi, M. S., Raman, K., & Solarin, S. A. (2021). Mediating role of employee engagement on the relationship between succession planning practice and employee performance in academic institutions: PLS-SEM approach. *Journal of Applied Research in Higher Education*. https://doi.org/10.1108/JARHE-02-2021-0056

Ahmed, T. (2020). Impact of employees engagement and knowledge sharing on organizational performance: Study of HR challenges in COVID-19 pandemic. *Human Systems Management*. https://doi.org/10.3233/HSM-201052

Anitha; J. (2014). Determinants of Employee Engagement And Their Impact on Employee Performance. *International Journal of Productivity and Performance Management*, *63*(3), 308–323. https://doi.org/10.1108/IJPPM-01-2013-0008

Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources Model: State of The Art. *Journal of Managerial Psychology*, *22*(3), 309–328. https://doi.org/10.1108/02683940710733115

Burnett, J. R., & Lisk, T. C. (2019). The Future of Employee Engagement: Real-Time Monitoring and Digital Tools for Engaging a Workforce. *International Studies of Management and Organization*, *49*(1), 108–119. https://doi.org/10.1080/00208825.2019.1565097

Chanana, N., & Sangeeta. (2021). Employee engagement practices during COVID-19 lockdown. *Journal of Public Affairs*, *21*(4). https://doi.org/10.1002/pa.2508

Cijan, A., Jenič, L., Lamovšek, A., & Stemberger, J. (2019). How digitalization changes the workplace. *Dynamic Relationships Management Journal*, *8*(1), 3–12. https://doi.org/10.17708/DRMJ.2019.v08n01a01

De Bruyne, E. &, & Gerritse, D. (2018). Exploring The Future Workplace: Results of The Futures Forum Study. *Journal of Corporate Real Estate*, *20*(3), 196–213. https://doi.org/https://doi.org/10.1108/JCRE-09-2017-0030

Dittes, S., Richter, S., Richter, A., & Smolnik, S. (2019). Toward The Workplace of The Future: How Organizations Can Facilitate Digital Work. *Business Horizons*, *62*(5), 649–661. https://doi.org/10.1016/j.bushor.2019.05.004

Ghozali, I., & Latan, H. (2015). *Partial Least Squares Concepts, Techniques and Applications Using SmartPLS 3.0 Program.* Publishing Agency - Undip.

Gull, I. A., Khan, A., & Sheikh, A. M. (2020). Employee Engagement-Performance Relationship Through Innovative Work Behaviour and Intention To Stay. *International Journal of ...* , *12*(4), 79–88. http://search.proquest.com/openview/403288e6e7af35fc88d14b4ae85849c5/1?pq-origsite=gscholar&cbl=2032142

Hasbullah, Hatta, M., and Arifin, Z. (2018). Communication Pattern of Wilayatul Hisbah, Lhokseumawe City in Implementing Amar Makruf Nahi Mungkar. *Budapest International Research and Critics Institure Journal*, Vol. 1, No. 4, 194-205.

Kumar, V., & Pansari, A. (2015). Measuring The Benefits of Employee Engagement. *MIT Sloan Management Review*, *56*(4), 67–72.

Kuusisto, M. (2015). Effects of Digitalization on Organizations. *International Journal of Management (IJM)*, *12*(1), 1665–1689.

Martínez-Caro, E., Cegarra-Navarro, J. G., & Alfonso-Ruiz, F. J. (2020). Digital technologies and firm performance: The role of digital organisational culture. *Technological Forecasting and Social Change*, *154*(June 2019), 119962. https://doi.org/10.1016/j.techfore.2020.119962

Okkonen, J., Vuori, V., & Palvalin, M. (2019). Digitalization Changing Work: Employees' View on the Benefits and Hindrances. In *Advances in Intelligent Systems and Computing* (Vol. 918). Springer International Publishing. https://doi.org/10.1007/978-3-030-11890-7_17

Oldham, G. R., & Da Silva, N. (2015). The impact of digital technology on the generation and implementation of creative ideas in the workplace. *Computers in Human Behavior*, *42*, 5–11. https://doi.org/10.1016/j.chb.2013.10.041

Ratna, R., & Kaur, T. (2016). The impact of Information Technology on Job Related Factors lik e Health and Safety, Job Satisfaction, Performance, Productivity and Work Life Balance. *Journal of Business & Financial Affairs*, *05*(01). https://doi.org/10.4172/2167-0234.1000171

Retnawati, H. (2016). *Quantitative Analysis of Research Instruments*. Parama Publishing.

Ricci, F., Scafarto, V., Ferri, S., & Tron, A. (2020). Value relevance of digitalization: The moderating role of corporate sustainability. An empirical study of Italian listed companies. *Journal of Cleaner Production*, *276*, 123282. https://doi.org/10.1016/j.jclepro.2020.123282

Schaufeli, B, W., Bakker, A. B., & Van Rhenen, W. (2009). How Changes in Job Demands and Resources Predict Burnout, Work engagement, and Sickness Absenteeism. *Journal of Organizational Behavior*, *30*, 893–917.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The Measurement of Work Engagement with a Short Questionnaire: A Cross-National Study. *Educational and Psychological Measurement*, *66*(4), 701–716. https://doi.org/10.1177/0013164405282471

Sugiyono. (2016). *Educational Research Methods: Quantitative, Qualitative and R&D Approaches*. Alfabeta.

Tan, B. C. C., Pan, S. L., & Hackney, R. (2010). The strategic implications of web technologies: A process model of how web technologies enhance organizational performance. *IEEE Transactions on Engineering Management*, *57*(2), 181–197. https://doi.org/10.1109/TEM.2009.2023130

Truant, E., & Broccardo, L. (2021). *Technological Forecasting & Social Change Digitalisation boosts company performance : an overview of Italian listed companies*. *173*(August). https://doi.org/10.1016/j.techfore.2021.121173

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward A Unified View. *Management Information Systems Research Center, University of Minnesota Is Collaborating with JSTOR to Digitize, Preserve and Extend Access to MIS Quarterly*, *27*(3), 425–478.

Vuori, V., Helander, N., & Okkonen, J. (2020). Correction to: Digitalization in knowledge work: the dream of enhanced performance (Cognition, Technology & Work, (2019), 21, 2, (237-252), 10.1007/s10111-018-0501-3). *Cognition, Technology and Work*, *22*(2), 427–433. https://doi.org/10.1007/s10111-019-00543-w

Widyastuti, T., & Hidayat, R. (2018). Adaptation of Individual Work Performance Questionnaire (IWPQ) into Bahasa Indonesia. *International Journal of Research Studies in Psychology*, *7*(2). https://doi.org/10.5861/ijrsp.2018.3020

Zhou, Y., Liu, G., Chang, X., & Wang, L. (2021). The impact of HRM digitalization on firm performance: investigating three-way interactions. *Asia Pacific Journal of Human Resources*, *59*(1), 20–43. https://doi.org/10.1111/1744-7941.12258