

The Effect of Employees' Dynamic Capabilities, Information Technology, and Work Placement, on Performance through Motivation as an Intervening Variable

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ABSTRACT

The University of Jember requires education staff who continue to adapt to the demands of the times, have information technology capabilities, and place them according to their competence, so that they continue to be motivated to improve their performance so that they can continue to compete with other universities. Based on this, the application of employee dynamic capabilities, knowledge of information technology, work placements, with motivation can improve employee performance, especially education staff. therefore, the aim of this research is to see which model is suitable for increasing optimal performance. This research method uses a qualitative with a sample of 84 education staff to represent 269 civil servant education staff at the University of Jember because only grading 6-14 at UNEJ who are given a questionnaire. The analysis tool used is the SmartPLS 4.0 application. the results of this study are: the effect of EDC on motivation, IT on motivation, IT on performance, motivation on performance, placement on performance, is significant or accepted based on P values <0.05 while the effect of EDC on performance, placement on performance, EDC on performance through motivation, IT on performance through motivation, and placement on performance through motivation is rejected or not significant because the results of P values > 0.05. The suggestion from this research is that the University of Jember provides equal opportunities for employees to be able to increase knowledge in order to continue to adapt to changes and be able to make good use of information technology accompanied by work placements in accordance with the competence of the teaching staff at the University of Jember.

KEYWORDS: Employee' Dynamic Capabilities, Information Technology, Work Placement Motivation, and Performance

1. INTRODUCTION

Dynamic Capabilities (DC) is a concept for all organizations to be able to compete with other organizations/industry¹. Dynamic capabilities are important assets because they usually have to be built and cannot be bought². This is in line with the Indonesian president's program which launched a new foundation for the State Civil Apparatus as outlined in the Circular of the Minister of Administrative Reform and Bureaucratic Reform number 20 of 2021, namely the Core Values of ASN with Morals in which ASN is required to be Adaptive, PNS at Jember University is required to quickly adapt to organizational changes from work units to BLU and service improvement programs carried out at the Jember University (UNEJ)³. Employees' dynamic capabilities (EDC) is the ability to integrate, build and reconfigure employee competencies in order to deal with environmental changes that are very fast and directly affect performance. In addition, EDC is also the ability to adapt and solve current problems and make long-term improvements to performance⁴.

In facing the 4.0 industrial revolution, UNEJ has developed a lot of various information technologies both in terms of hardware, namely hardware that supports AI needs or software in the form of information systems that have been developed. The demand for knowledge of information technology for educational staff is getting higher, several efforts have been made to increase the use of information technology and provide support to employees both in self-development and innovation related to the development of information technology⁵.

Educational staff is a member of the community who devotes himself and is appointed to support the implementation of education staff at the UNEJ (Permendikbud 21 of 2020), the main tasks and functions of educational staff are in accordance with the positions in the placement work unit, where the placement of educational staff is based on a map of positions drawn up based on job analysis and workload analysis (Perka BKN Number 12 of 2011). The position map which is a guideline/basic in the placement of employees contains job titles, grading (position class), needs, bezzeting whose duties and functions are stated in Permenristekdikti number 4 of 2018 concerning Job Descriptions of Universities and Institutes. Placement of employees who are not appropriate/not in accordance with their competencies makes employees unable to work optimally/well to achieve organizational goals⁶ and the process carried out by HR managers in determining the location and position of their employees according to their competence will have a good effect on the organization, therefore the placement of employees according to their competence is very important in order to achieve (the right man in the right place) to support UNEJ's vision and mission.

Education staff to be able to continuously adapt to the demands of the times, information systems, and work placements that may not be suitable, a Tendik requires strong motivation to be able to improve his performance. Work motivation is an encouragement or can be called enthusiasm for work (Sedarmayati: 2017) Meanwhile (Achim et al. : 2013) also said that work motivation is "a set of circumstances of individual needs that need to be satisfied and, therefore, encourages, triggers, and causes individuals to carry out a series of jobs to satisfy them", so that the services available at UNEJ are more effective, efficient, fast, precise and accountable to provide competitive competitiveness at both the national and international levels. UNEJ continues to develop strategies and implement them. so that Jember University can continue to compete with other universities.

Based on the theory and regulations in force, it shows that UNEJ education staff need to be employees who have dynamic capabilities (employee' dynamic capabilities), mastery of information systems, and work placements that are sometimes not in accordance with their competence can reduce Tendik's morale, thus requiring strong motivation to adapt to a new place, the ability to adapt to change (employee' dynamic capabilities), mastery of information systems and employee mutations are things that need to be done quickly to improve employee performance.

2. LITERATURE REVIEW

Employees' Dynamic Capabilities

The basic theory of Dynamic Capabilities (DC) was coined by Teece who stated that DC is a company's ability to integrate, build, and reconfigure internal and external competencies to cope with rapid environmental changes. Employees' Dynamic Capabilities (EDC) is a concept that must exist in organizational DCs where EDC can indeed be a prerequisite in sustainable organizational development through employees, where employees are an important resource related to company sustainability⁴. The Employees' Dynamic Capabilities indicator in this study is related to ASN's core value, namely Morale (in A which is the last adaptive after L) in accordance with SE Menpan Number 20 of 2021 which is built based on three dimensions, namely: a. Quickly adapt to change, b. Continue to innovate and develop creativity, and c. Act proactively.

Information Technology

Information Technology is a technology that is used to obtain, process, process, compile, store data in various ways to be able to produce quality information, namely information that is relevant, accurate and precise, can also be used for personal, business and government needs where information this is strategic information to be used for decision making⁶.

Performance will increase when using information technology, especially work related to collecting, analyzing information, storing, and optimizing interactive media functions. electronics, information technology, Internet and intranets, search engines, cloud computing, databases, and big data⁷.

Work Placement

Placement of employees is a policy of the human resources section in determining the placement of employees so that they can carry out the tasks for which they are responsible including indicators of abilities, skills, expertise, and skills in distributing tasks and promotions⁸. Employee rotation in an organization is a natural thing in both

agencies and companies⁹. According to Mangkunegara 2007⁸ the factors that need to be considered in employee job placement are: Education, Knowledge, and skills.

Motivation

Motivation can be defined as a state within a person that encourages, activates or moves and directs behavior toward goals Pujadi (2007). Meanwhile, according to Uno in Nursalam (2008) motivation can be interpreted as internal and external encouragement in a person which is indicated by the desire and interest in carrying out activities, hopes and aspirations, appreciation, and respect for oneself, a good environment, and activities that interesting.

Motivation comes from the word motive which means "push" or "driving force" that exists within a person that causes a person to carry out an action or activity (Notoatmodjo, 2007). According to Siagian (2008) Motivation is the driving force that causes a person to be willing and willing to mobilize abilities in the form of expertise or skills of energy and time to carry out various activities for which he is responsible and fulfill his obligations in order to achieve the goals of various predetermined targets. Maslow's hierarchy of needs theory (2015) states that motivation in a person has 5 levels of needs, namely: Physiological, Safety, Affiliation, Esteem, and Self Actualization.

Performance

Employee performance is the result of work that is achieved by someone in carrying out tasks that are their responsibility to achieve work targets. Therefore, employees get good work results if they can work well and have a high work ethic¹⁰. Employee performance indicators have 6 indicators that can be used to measure employee performance¹¹, including: Quality, Working Quantit, Punctuality, effectiveness, independence, and Commitment.

3. RESEARCH METHOD

Data analysis in this study uses the Partial Least Square or PLS approach. This analysis is often referred to as the second generation of multivariate analysis (Ghozali & Latan, 2012). This research method uses a qualitative with a sample of 99 education staff because only grading 6-14 at UNEJ who are given a questionnaire. data were analyzed using SmartPLS version 4.0.

4. RESULT

Outer Model Testing (Measurement Model)

The indicators that form a latent variable in research are reflective in nature, so that the evaluation of the outer model or measurement model to measure the validity and reliability of indicators uses a). Convergent Validity b). Discriminant Validity c). Composite Reliability and Cronbach Alpha.

Convergent Validity is done by looking at item reliability (validity for indicators) which is indicated by the loading factor value. Loading factor is a number that shows the correlation between the score of an item in question and the score of the construct indicators that measure the construct. The loading factor value greater than 0.7 is said to be valid. According to Hair et al., (2013), an output greater than 0.5 indicates that the loading factor provides a value above the recommended value or meets convergent validity. the results are shown in table 1 below:

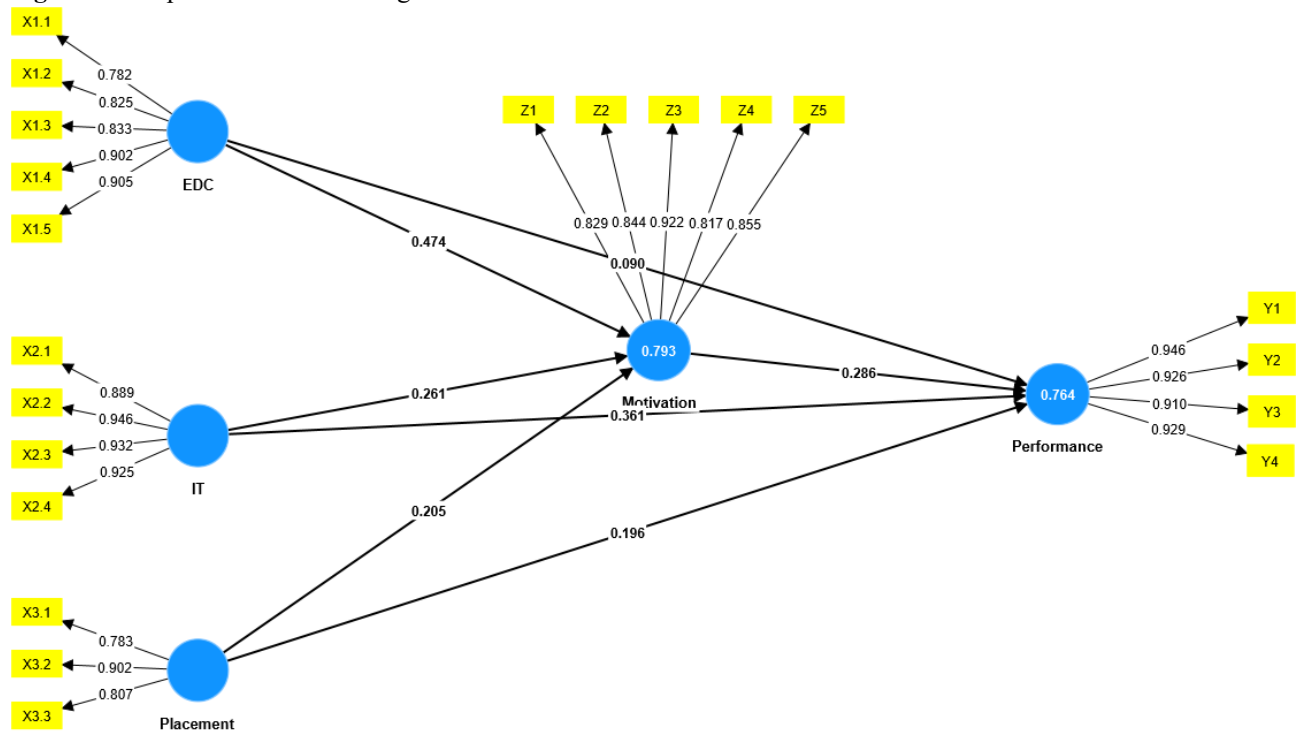
Table 1: Outer Loadings

	EDC	IT	Motivation	Performance	Placement
X1.1	0.782				
X1.2	0.825				
X1.3	0.833				
X1.4	0.902				
X1.5	0.905				
X2.1		0.889			
X2.2		0.946			
X2.3		0.932			
X2.4		0.925			
X3.1					0.783
X3.2					0.902
X3.3					0.807
Y1				0.946	
Y2				0.926	
Y3				0.91	
Y4				0.929	
Z1			0.829		
Z2			0.844		
Z3			0.922		
Z4			0.817		
Z5			0.855		

Source: Processed data SmartPLS 4.0

Based on the results of data processing with SmartPLS shown in Table 4.3, the indicators for each variable in this study have a loading factor value of > 0.5, with this the convergent validity test results have been fulfilled. The image below shows the results of the significant test more clearly:

Figure 1 : Graphical of Outer Loading



Source: Processed SmartPLS 4.0

Discriminant Validity is done by comparing the values in the cross loading table (contract measurement). The cross loading value shows the correlation between each construct and its indicators and indicators from other block constructs. The indicator that has the highest loading factor value for the intended construct compared to other constructs' loading factor values is declared valid. the results are shown in table 2 below

Table 2: Result of Cross Loading

	EDC	IT	Motivation	Performance	Placement
X1.1	0.782	0.618	0.643	0.556	0.648
X1.2	0.825	0.695	0.725	0.703	0.669
X1.3	0.833	0.726	0.667	0.634	0.69
X1.4	0.902	0.793	0.819	0.783	0.727
X1.5	0.905	0.853	0.811	0.745	0.707
X2.1	0.744	0.889	0.702	0.74	0.704
X2.2	0.812	0.946	0.801	0.77	0.725
X2.3	0.835	0.932	0.775	0.834	0.788
X2.4	0.824	0.925	0.812	0.738	0.729
X3.1	0.55	0.532	0.504	0.478	0.783
X3.2	0.818	0.807	0.788	0.819	0.902
X3.3	0.603	0.606	0.647	0.596	0.807
Y1	0.762	0.799	0.795	0.946	0.744
Y2	0.743	0.76	0.768	0.926	0.703
Y3	0.709	0.718	0.686	0.91	0.705
Y4	0.792	0.818	0.798	0.929	0.758
Z1	0.702	0.653	0.829	0.656	0.631
Z2	0.697	0.635	0.844	0.547	0.579
Z3	0.823	0.827	0.922	0.761	0.756
Z4	0.675	0.632	0.817	0.628	0.676
Z5	0.786	0.794	0.855	0.866	0.734

Source: Processed data SmartPLS 4.0

Based on the results in Table 2, it shows that the correlation value of the construct with the indicators is greater than the correlation value with the other constructs. Thus that all constructs or latent variables already have good discriminant validity, where the indicators in the construct indicator block are better than indicators in other blocks.

Convergent Validity and Cronbach Alpha. Solihin et al., (2013) stated that a latent variable can be said to have good reliability if the composite reliability value is > 0.6 and Cronbach Alpha > 0.6. SmartPLS 4.0 output results for the value of the composite reliability and Cronbach Alpha. the results are shown in table 3 below

Table 3: Convergent Validity and Cronbach Alpha

	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)	Information
EDC	0.904	0.913	0.724	reliable
IT	0.942	0.944	0.852	reliable
Motivation	0.907	0.917	0.73	reliable
Performance	0.946	0.948	0.861	reliable
Placement	0.78	0.828	0.692	reliable

Source: Processed data SmartPLS 4.0

The table above shows that all latent variables have composite reliability and Cronbach Alpha values greater than 0.60. With the resulting value it can be concluded that all latent variables have good reliability according to the minimum value limit that has been required. and all constructs show an AVE value greater than 0.50. Therefore, it can be concluded that AVE meets the valid requirements. based on (Lathan and Ghazali, 2012: 78) which states

that the variable is declared valid if the AVE root is greater than the correlation value between the variables in the research model and $AVE > 0.5$.

Inner Model Testing (Structural Model)

After testing the outer model that has fulfilled, then testing the inner model (structural model) is carried out. The inner model is carried out by conducting a significance test by looking at the R-square (R^2) and estimating the path coefficient. The higher the R-square value (R^2) means the better the prediction model of the proposed research model. Variant Analysis (R^2) or Determination Test, namely to find out the influence of the independent variables on the dependent variable, the value of the coefficient of determination can be shown in table 4.

Table 4: The R-square value (R^2)

	R-square	R-square adjusted
Motivation	0.793	0.787
Performance	0.764	0.754

Source: Processed data SmartPLS 4.0

Based on the table above (Chin, 1998) explains that the R-square (R^2) value is used to measure the influence of certain independent latent variables on the dependent latent variable, if $R^2 > 0.7$ is categorized as strong, so the R-square above is strong.

In addition to assessing whether or not there is a significant relationship between variables, a researcher should also assess the magnitude of the influence between variables with the Effect Size or f-square (Wong, 2013). The f square value of 0.02 is small, 0.15 is medium, and 0.35 is large. Values less than 0.02 can be ignored or considered as having no effect (Sarstedt et al., 2017).

Table 5: The result of f-square

	f-square
EDC -> Motivation	0.223
EDC -> Performance	0.006
IT -> Motivation	0.071
IT -> Performance	0.11
Motivation -> Performance	0.072
Placement -> Motivation	0.063
Placement -> Performance	0.047

Source: Processed data SmartPLS 4.0

Based on the table of f-square values above, there is no large effect size with F Square criteria > 0.35 . And the moderate effect is with F Square between 0.15 to 0.35 is the effect of EDC on motivation while the effect of IT on motivation, IT on performance, motivation on performance, placement on motivation, and placement on performance is small because the f-square value is in the range of 0.02 to 0.15. Meanwhile, the effect of EDC on performance is ignored because it has an f-square value < 0.02 .

Calculation of Path Coefficient Values and Hypothesis Testing carried out based on the results of the Inner Model test (structural model), this test describes each variable whether or not it has an influence on the dependent variable according to the path image that has been tested. with the results in table 6 below:

Table 6: Path Coefficient Values

	Original sample (O)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Conclusion
EDC -> Motivation	0.474	0.132	3.591	0.001	Significant
EDC -> Performance	0.09	0.134	0.672	0.503	Not Significant
IT -> Motivation	0.261	0.117	2.236	0.028	Significant
IT -> Performance	0.361	0.153	2.351	0.021	Significant
Motivation -> Performance	0.286	0.113	2.532	0.013	Significant
Placement -> Motivation	0.205	0.08	2.546	0.012	Significant
Placement -> Performance	0.196	0.101	1.936	0.056	Not Significant
IT -> Motivation -> Performance	0.075	0.045	1.679	0.096	Not Significant
EDC -> Motivation -> Performance	0.136	0.073	1.867	0.065	Not Significant
Placement -> Motivation -> Performance	0.059	0.034	1.737	0.086	Not Significant

Source: Processed data SmartPLS 4.0

Based on the results of the table above the effect of EDC on motivation, IT on motivation, IT on performance, motivation on performance, placement on performance, is significant or accepted based on P values <0.05 while the effect of EDC on performance, placement on performance, EDC on performance through motivation, IT on performance through motivation, and placement on performance through motivation is rejected or not significant because the results of P values > 0.05.

5. DISCUSSION

The effect of EDC on the motivation of education staff in research (Bieńkowska & Tworek, 2020) supports motivation as mediating the relationship between Employee' Dynamic Capabilities and employee performance and EDC has an effect on motivation. However, the next study (Bieńkowska et al., 2021), namely Employee' Dynamic Capabilities has an impact on performance without motivation as mediation, but EDC no longer has an effect on employee motivation. based on previous research and the results of data processing support research from (Bieńkowska & Tworek, 2020), namely EDC has a positive and significant effect on employee motivation, so employees who have the ability to adapt will continue to be motivated.

Information technology is related to motivation as shown in research (Hajjali et al., 2021) where information technology has a positive and significant effect on work motivation in the Makasar DPRD secretariat office, (Lestariana & Hermawan, 2021) also mentions the use of information technology has a significant effect on motivation, along with the second research, namely research from (Sun & Pan, 2021) states that learning using information technology can increase student creativity and learning motivation. This means that even though information technology is developing rapidly with the motivation to master information technology, it can be ascertained that it can improve employee performance. Based on this, the effect of information technology on motivation is accepted according to the results of data processing. Information technology has a positive and significant effect on motivation, meaning that employees who have information technology skills will continue to be motivated.

The role of work placement is expected to influence employee motivation so that it is easy for them to adapt to new places, new demands, and new jobs to improve their performance in order to support the organization. research from (Apriansyah & Widigdo, 2020) states that employee placement has a positive and significant effect on employee motivation. Research (Efendi & Dwijayanda, 2021) also states that employee placement directly has a positive effect on employee motivation, in contrast to the two previous studies (Dewi, 2022) in whose research results stated that job placement has no significant effect on employee motivation. Based on the results of data processing in this study, this does not agree with the results of the study (Dewi, 2022) because the results of employee placement have a positive and significant effect on employee motivation.

Research related to employee dynamic abilities has a very significant effect on employee performance by continuous learning shown by research (Akram & Hilman, 2018). work innovation habits. However, research has shown the opposite where EDC has no significant effect on the performance of teaching staff at the University of Jember, this can happen because EDC demands are not emphasized too much in government agencies even though there are ASN core values, but this has just been encouraged and many education staff are in their comfort zone.

The results of the study (Silaen et al., 2021) are that information technology has a significant effect on employee performance. In line with these results research from (Sulistiyawati & Bahruni, 2021) and (Harsanto et al, 2022), the result is that information technology has a significant effect on employee performance, research from (Karinda & Sari, 2022) results that the implementation of information technology has a positive and significant effect on Driver performance. Based on this discussion, the development of information technology (IT) has made it easier for humans to carry out their activities. The research above is in line with the results of this study, namely information technology has a positive and significant effect on the performance of educational staff.

Employee job placement aims to improve employee performance in accordance with research from (Sudiardhita et al., 2019) where the results of this study concluded that more appropriate placement tends to improve employee performance and research from (Paais, 2020) there is also a positive influence between Work Placement and Employee Performance, in line with previous research, namely research from (Nurhasanah & Rikayana, 2021) and (Syafitri, 2020) stated that there is a positive and significant effect of work placement on employee performance. Different from previous research (Afriana, 2021), it is precisely the opposite where the results of his research have no effect on job placement on employee performance. The results of this study support research (Afriana, 2021) which states that work placement has no significant effect on employee performance.

The effect of EDC on performance through the motivation of education staff is still not much research related to this, the results of research from (Bieńkowska & Tworek, 2020). supports motivation as mediating the relationship between Employee' Dynamic Capabilities and employee performance. On the other hand, research (Bieńkowska et al., 2021) in the following year yielded that Employee' Dynamic Capabilities had an impact on performance without motivation as mediation, and the results in this study supported subsequent research (Bieńkowska et al., 2021) where EDC had no significant effect on performance through motivation. The same thing is also motivation as an intervening variable of information technology and work placement has no effect on performance.

6. CONCLUSION AND ACKNOWLEDGMENTS

The conclusion in this study, based on the results of the analysis conducted, it is explained that EDC have a significant effect on Education Personnel Motivation, Information Technology has a positive and significant effect on Education Staff Motivation, Work Placement has a positive and significant effect on Education Personnel Motivation, EDC is not significant to the performance of educational staff, Information Technology is positive and significant to Performance of educational staff, Work Placement is positive and significant to Performance of educational personnel, EDC is positive not significant to Performance through motivation of educational staff, Information Technology is positive not significant to Performance through Employee Motivation education, and positive not significant Placement on Performance through Motivation of teaching staff where if the education staff has EDC or is adaptive in ASN core values, Information Technology knowledge, and job placement according to their competence, the work motivation and performance of the education staff will increase except EDC has no effect on performance. Thus several hypotheses in this study were accepted and rejected, the results of this study can be used to support/strengthen previous research.

Suggestions for further research can be added indicators to the EDC variable in this study using ASN core values where the results could be different if used by non-governmental organizations. You can also use samples from all educational staff at the University of Jember, not only limited to civil servants with grades 6-14.

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