



# The Digital Capability and Job Satisfaction Effects on the Performance Improvement of Islamic Boarding School Employees in Indonesia

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**Abstract.** Islamic boarding schools are one of the oldest educational institutions that cannot be ignored from the history and culture of Indonesia because it is proven that Islamic boarding schools have employees who are able to adapt to the times. In this digital transformation era, Islamic boarding school employees must have digital capability. Thus, they can perform and prepare the graduates excellently. In addition, in order for employee performance to increase, the boarding school must also fulfill employee job satisfaction which includes satisfaction with the payroll system, satisfaction with the leader, satisfaction with promotions, satisfaction with coworkers, and satisfaction with the job itself. If these two things can be fulfilled by the organization, the employees will try their best to improve their performance. This quantitative research took the population from the Islamic boarding school employees in Indonesia, 420 employees. The researchers applied the purposive sampling technique to take 205 boarding school employees. The researchers applied questionnaire survey to collect the data. Then, the collected data analysis applied Partial Least Square, PLS, with the Warp PLS 7.0. The researchers analyzed the effects of digital capability on performance. The results were no job satisfaction effects on performance. The researchers also found job satisfaction moderates the effect of digital capability on the performance of Islamic boarding school employees.

**Keywords:** Digital Capability, Digital Skill, Employee Performance, Work Satisfaction, Islamic Boarding School

## 1 Introduction

Digital transformation is a global challenge that must be faced by human resources (HR). This raises the issue that human labor is no longer needed by companies or organizations, but company operations will be carried out by machines or robots. But in fact, to ensure the success of digital transformation, companies need human resources who are adaptive in learning and mastering expertise in the field of developing technology. This applies in any field, including education.

Digital transformation in the world of education experienced a very significant change during the Covid-19 pandemic with government regulations to enforce social

distancing, educators and education personnel are required to have digital capabilities so that the resulting performance is in accordance with organizational goals [1].

Digital capability refers to specific IT operation skill, such as operating social media, mobile application, and analytical skill to provide accurate and useful information [2]. Because Digital capability is an important requirement to achieve business success today. In the digital economy, a company's success is determined by how well it can explore and exploit digital technology [3].

Theoretically, digital capability positively influences job satisfaction by decreasing job repetition. However, the capability could also negatively influence job satisfaction, for example increasing job stress [4]. Digital capability also influenced both financial and non-financial performances of companies [5]; and employee productivity [6].

Job satisfaction refers to how employees like or dislike their jobs [7], [8]. Therefore, job satisfaction is a very important factor for individual performance at work [9]. This means that employees who have high job satisfaction tend to have excellent performance [10], [11]

Based on initial observations, employees and teachers of Roudlotul Muftadi'in Balekambang Islamic boarding school partially had high digital capability while the remaining employees had low digital capability, especially employees and teachers aged 40 years and over. Even so, they had equally good performance, for example their discipline behaviors of making reports or making teaching materials as instructed by the leaders.

Some relevant previous studies, for example, Waskito [12] found job satisfaction and leadership moderated the digital competence effect on performance improvement. Yu & Moon [13] found the digital strategic orientation effect on organizational performance, the digital capability effect on organizational performance, and the digital strategic orientation effect on organizational performance moderated by digital capability. Heredia et al. [14] and Nousopoulou et al. [15] found digital capability improved company performance moderated by technology capability.

A study about job satisfaction, for example by Alwali & Alwali [17] found that job satisfaction influenced employee performance and so did [16], [18], [20]. However, Matagi et al. [19] and Pawirosumarto et al. [21] found no effects on employee performance. A research result about the moderating effect of job satisfaction, for example by Waskito [12] found that digital capability influenced job satisfaction and the digital capability effect on employee performance moderated by job satisfaction. The results of the previous studies were not consistent so further research with the same topic is important to conduct.

## 2 Research Methods

This research was conducted at Islamic Boarding school Rudlotul Muftadi'in Balekambang Jepara Central Java, Indonesia. The population amounted to 420 people consisting of teachers and education personnel. The sampling technique used purposive sampling technique so that the sample of this research totaled 200. Data were collected through

surveys using questionnaires. The applied data analysis was with Partial Least Square, PLS; using Warp PLS 7.0.

Fig. 1 provides the hypothetical detail and conceptual model. Here are the formulated hypotheses for current research:

- H1: Digital capability affects employee performance of employees of Islamic boarding school Roudlotul Muftadi'in Jepara.
- H2: Digital Capability affects job satisfaction of employees of Islamic boarding school Roudlotul Muftadi'in Jepara.
- H3: Job satisfaction affects employee performance of employees of Islamic boarding school Roudlotul Muftadi'in Jepara.
- H4: Job satisfaction moderated the digital capability effect on employee performance.

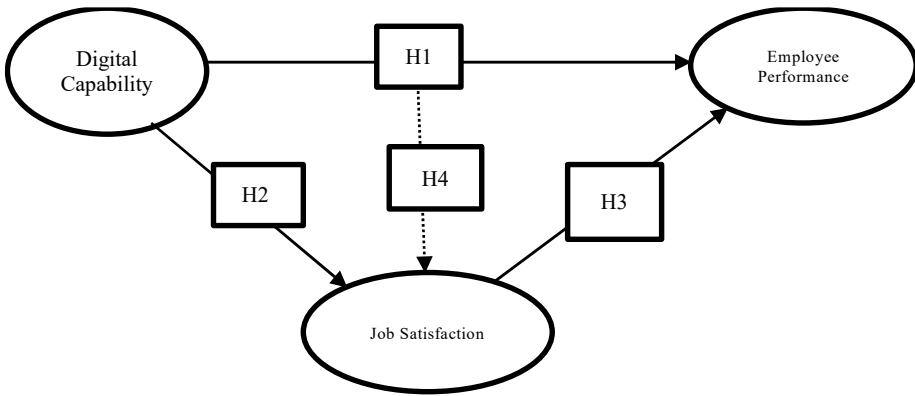


Fig. 1. Conceptual Framework

### 3 Result and Discussion

#### 3.1 Result

The results in this study were reviewed through validity tests, reliability tests, model fit indices, correlations among variables and effect size. The researchers used Warp PLS 7.0 software to validate the presence of higher outer loading value than 0.70 [22]. Table 1 provides the data process results with the software which all items, from DG-1 until KK-10 are valid because the values are higher than 0.70.

The second test was reliability test with the applied criteria: both composite reliability and Cronbach's Alpha values must be higher than 0.70 [23]. Table 2 shows the results. The applied fit model test was with Warp PLS 7.0 to determine the feasibility of APC, AVIF, and VIF values, less than 0.05 [24]. Table 3 provides the results.

**Table 1.** Measurement Validity Test

Item	Score	Loading Factor	Description
DG-1	0.678	>0.05	Valid
DG-2	0.659	>0.05	Valid
DG-3	0.758	>0.05	Valid
DG-4	0.772	>0.05	Valid
DG-5	0.757	>0.05	Valid
DG-6	0.736	>0.05	Valid
DG-7	0.727	>0.05	Valid
DG-8	0.782	>0.05	Valid
DG-9	0.677	>0.05	Valid
KP-1	0.643	>0.05	Valid
KP-2	0.7	>0.05	Valid
KP-3	0.783	>0.05	Valid
KP-4	0.731	>0.05	Valid
KP-5	0.789	>0.05	Valid
KP-6	0.851	>0.05	Valid
KP-7	0.771	>0.05	Valid
KP-8	0.719	>0.05	Valid
KP-9	0.773	>0.05	Valid
KP-10	0.73	>0.05	Valid
KP-11	0.793	>0.05	Valid
KK-1	0.829	>0.05	Valid
KK-2	0.896	>0.05	Valid
KK-3	0.709	>0.05	Valid
KK-4	0.746	>0.05	Valid
KK-5	0.577	>0.05	Valid
KK-6	0.716	>0.05	Valid
KK-7	0.896	>0.05	Valid
KK-8	0.628	>0.05	Valid
KK-9	0.536	>0.05	Valid
KK-10	0.896	>0.05	Valid

**Table 2.** Measurement Reliability Test

Variable	Composite Reliability	Cronbach's Alpha	Description
Digital Capability	0.910	0.889	Reliable
Employee Performance	0.935	0.924	Reliable
Job Satisfaction	0.928	0.911	Reliable

**Table 3.** Measurement Model Fit Indices

	Model Fit Indices
APC (Average Path Coefficient)	0.494
AVIF (Average Block VIF)	2.988
VIF (Average Full Collinearity)	3.352

### 3.2 Hypothesis Testing

The examined variables had significant correlation if the path coefficient and the p-values were lower than 0.05 (<0.05). In this research, the obtained p-value < 0.001 with path coefficient of 0.464, indicating direct and significant digital capability effect on employee performances. The same result was observable on job satisfaction effect on employee performance, p-value < 0.001 with path coefficient of 0.555. However, the research did not find significant digital capability effect job satisfaction, p-value <0.001, path coefficient 0.816. The interaction between the moderator variables of job satisfaction and digital capability influenced the employee performance, p-value of 0.020 and a path coefficient value of 0.142. Figure 2 shows the detailed results.

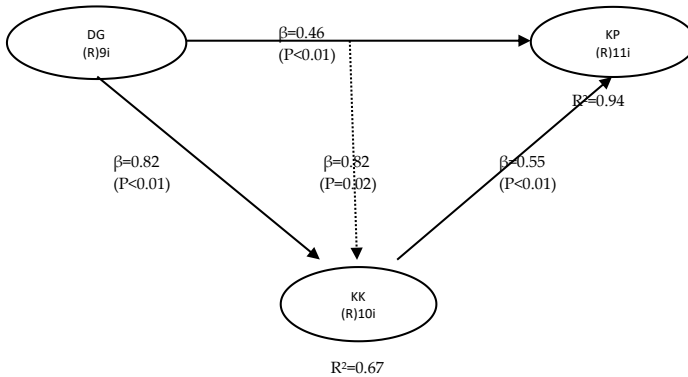


Fig. 2. Relationship among variables

The third test was effect size test. The applied criteria were: 1) path coefficient value of 0.02, indicating small effect size; 2) the value of 0.15, indicating medium effect size; and 3) the value of 0.35, indicating high effect size as shown in Table 4.

Table 4. Effect Size for Path Coefficient

Interaction	Score	Description
Digital Capability-employee Performance	0.389	high
Digital capability-job satisfaction	0.665	high
Job satisfaction-employee performance	0.475	High
Digital capability-employee performance-job satisfaction	0.070	low

## 4 Discussion

### 4.1 The Digital Capability Effect on Employee Performance

The digital capability influenced employee performance (p<0.05). Kusdanu Waskito (2021) also found the same results. The researchers found digital capability influenced

the performance of university lecturers. Yu & Moon (2021) also found digital capabilities influenced company performance. Yasa et al. (2019) also found that high digital capability mastery could improve the performance of a company and employees [14], [15], [26].

#### 4.2 The Digital Capability Effect on Job Satisfaction

Digital capability did not influence job satisfaction ( $p > 0.5$ ). This statistic result was relevant with the current fact but contradicted with [12]. The current fact showed most employees were not satisfied due to the non-optimally applied payment system and promotion even they had high digital capability.

**The Job Satisfaction Effect on Employee Performance.** Job satisfaction influenced employee performance ( $p < 0.50$ ). The same result was observable on the study of Alwali & Alwali (2022) but contradicted with [19], [21]. Alwali & Alwali (2022) found job satisfaction influenced the doctors in general hospitals in Iraq. They also found high the job satisfaction of employees led to high employee performance [16], [18], [20].

**The Digital Capability Effect on Employee Performance Moderated by Job Satisfaction.** Job satisfaction moderated slight digital capability effect on employee performance ( $p < 0.05$ ), the path coefficient of  $0.070 < 0.15$ . The result was different from the study by [12].

## 5 Conclusion

The researchers concluded high digital capability application influenced the employee performance but it did not influence job satisfaction. On the other hand, job satisfaction influenced employee performance and so did the digital capability but it was moderated by job satisfaction.

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