

THE INFLUENCE OF UTILIZATION OF INFORMATION TECHNOLOGY AND HUMAN RESOURCES CAPABILITY ON THE PERFORMANCE OF ADMINISTRATIVE EMPLOYEES

Syafria ^{a*)}, Supratman ^{a)}

^{a)} Universitas Islam Negeri Sjech M. Djamil Djambek Bukittinggi, Bukittinggi, Indonesia

^{*)}e-mail korespondensi: : syafriaherman@gmail.com

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Abstract. This research was conducted at SMAN 1 Tilatang Kamang, which is located on Jalan Raya Pekan Kamis, Tilatang Kamang District, Agam Regency. This research is motivated by the initial observations that the author met in the field, there are several problems in the use of information technology used, especially the use of computers, the internet, and printer machines. There are only 10 TU employees, only 2 can operate a computer, and even then, it's just that. If fast electronic data is needed, they find it difficult to make it so they are often assisted by honorary personnel. This study aims to determine the effect of the use of information technology and human resource capabilities on the performance of Administrative Officers (TU) of SMAN 1 Tilatang Kamang. In connection with the research objectives above, a hypothesis is made that "it is suspected that the use of technology and human resource capabilities has a significant partial and simultaneous effect on employee performance". To conduct the discussion and research, the authors use primary data directly obtained from the object of research through a list of structured statements or questionnaires that have been answered by employees, and the population of this research is TU employees of SMAN 1 Tilatang Kamang, totaling 10 people using the Census method (Total Sampling).). Data processing using SPSS 15.0 assistance method. The data analysis method used in this research is the Instrument Test, namely the Validity Test and Reliability Test, as well as Variable Descriptive Analysis. The analytical tool used is Multiple Linear Regression Analysis.

Keywords: utilization of technology; human resource capabilities; employee performance

I. INTRODUCTION

Recent studies indicate that the utilization of information technology (IT) is no longer merely a tool for automation, but a strategic capability that drives performance through digital capacity, organizational agility, and process transformation. A systematic review highlights that digital capabilities are positively associated with business performance from a balanced scorecard perspective, as they strengthen process integration, information quality, and organizational responsiveness [1]. At the mechanism level, IT capabilities influence performance mainly through organizational agility—the ability to sense and respond rapidly to changes [2]. Other evidence emphasizes that IT capabilities foster resilience and ambidexterity (exploration vs. exploitation), which in turn improve small and medium-sized enterprises' (SMEs) performance, particularly under conditions of crisis and uncertainty [3]. In practice, digital transformation itself serves as a key mediator between digital leadership and employee outcomes (e.g., performance, commitment), indicating that technology investments deliver value only when framed by vision, governance, and effective change orchestration [4].

At the behavioral level, employee-focused studies show that technology readiness and acceptance correlate with work engagement, which in turn enhances performance—higher readiness and acceptance lead to greater involvement and productivity [5]. Moreover, digital leadership facilitates employees' innovative performance through job crafting, which is especially relevant for administrative staff dealing with automated workflows and digital archives [6]. Conversely, research also warns of the “dark side” of digitalization: technology intensity, hyper-connectivity, and role overload can increase burnout and diminish performance if not managed properly with work design and adequate support [7], [8]. Therefore, conceptual models linking IT utilization to administrative employee performance should integrate not only technical factors (e.g., task-technology fit, system and information quality) but also psychosocial ones (e.g., supervisor support, role clarity, and digital workload) as moderators or mediators.

Human resources capability emerges as a critical enabler for converting IT investments into performance. HRM research shows that practices in training and development, performance appraisal, and rewards build the “ability, motivation, and opportunity” (AMO) framework, which equips employees to leverage IT for productivity [9]. Furthermore, HR analytics has been shown to enhance organizational performance through strategic alignment—for example, mapping workload based on system logs, predicting administrative bottlenecks, and addressing skill gaps through targeted training [10]. On a more advanced level,

AI and big data capabilities improve creativity, green innovation, and sustainable performance, provided that knowledge-sharing culture and data literacy among employees are well established [11], [12].

Synthesizing these findings, a conceptual model for administrative employees may be outlined as follows: IT utilization (X1)—anchored in system quality, task-technology fit, and usage intensity—affects performance (Y) primarily through process agility, engagement, and digital transformation as mediators. Meanwhile, human resource capability (X2)—including digital literacy, analytical skills, and high-quality HRM practices—strengthens this influence while mitigating risks such as technostress. Contextual factors such as digital leadership, knowledge-sharing culture, and work design act as important moderators. This framework is consistent with the Resource-Based View/Dynamic Capabilities (IT and HR as unique, inimitable resources) and the AMO theory (HRM → employee behavior → performance), while integrating cross-sector empirical evidence [1]–[12].

Information technology is organized in an institution to make it easier for individuals to complete their tasks. The use of technology is one of the determinants of the success of achieving the goals of an institution. Formation technology in an institution is an important means to increase the efficiency of the institution and support competitiveness. Information technology has an important role in improving employee performance. Information is a set of interconnected components that have the function of collecting, processing, storing, and distributing information to support satisfaction and supervision in the organization. This research is based on the initial observation that the author encountered in the field, there are several problems in the use of information technology used, especially the use of computers, the internet, and printer machines. Teachers and employees totaling 79 people, only 60% use information technology in schools. If fast electronic data is needed, they find it difficult to make it so they are often assisted by honorary personnel. The effect of the use of technology and human resource development on improving the performance of employees of PT. Angkasa Guna Surabaya illustrates that the use of technology and human resource development has a positive influence on improving the performance of employees of PT. Angkasa Guna Surabaya. Based on this research, the author also wants to research the influence of the use of information technology and the ability of Human Resources (HR) on the performance of teachers and employees at SMAN 1 Tilatang Kamang.

The formulation of the problem in this study is to see how the use of information technology and human resource (HR) capabilities affect the performance of teachers and employees at SMAN 1 Tilatang Kamang. The hypothesis in this study is that it is suspected that the use of information technology and human resource capabilities has a positive and significant effect on employee performance. Meanwhile, the purpose of this study is to see how the influence of information technology and human resource capabilities on the performance of teachers and employees at SMAN 1 Tilatang Kamang

II. RESEARCH METHODS

The type of research used is descriptive which uses a quantitative approach method, which is trying to describe, determine and interpret a form of research that aims to determine the cause-and-effect relationship. The researcher used primary data directly obtained from the research object through a list of statements or structured questionnaires that had been answered by teachers and employees, and the population of this study was teachers and employees at SMAN 1 Tilatang Kamang which amounted to 79 people using the Census (Total Sampling) method. Data processing using the SPSS 15.0 assistance method. The data analysis methods used in this study are Instrument Tests, namely Validity Tests and Reliability Tests, as well as Descriptive Analysis of Variables. The analysis tool used is Multiple Linear Regression Analysis..

III. RESULTS AND DISCUSSION

The Influence of Technology and Information Utilization on Teacher and TU Performance

Based on the results of the hypothesis test, the variable Utilization of Technology and Information (X1) has a positive and significant effect on the performance of teachers and TU (Y). Proven by ($t_{cal} > t_{table}$) ($4,246 > 1,977$) and $\text{sig } 0.000 < 0.05$, it can be concluded that the test is partially H1 accepted. The results of the research support the research ([14]Dwi Sapartiningsih & Kristianto, 2018); The conclusion of the study is that the competence of human resources has a positive and significant effect on performance. This means that the competence of human resources greatly determines the success of a job. The performance of the village apartment can be in the form of quality in making reports, timeliness of reporting and also quality in managing all the work that is his responsibility. By being given authority, the village must be able to manage their respective tasks well, so the success is determined by the ability of the village apparatus itself.

The results of this study are not in line with previous research [15] concluded that the competence of human resources does not affect performance. This shows that competence that refers to the quality of human resources does not produce good performance, which is caused by several factors, including educational background, not receiving training, so that in working it is not guided by existing regulations but based on individual perceptions.

The effect of the use of information technology on the performance of village apparatus

Based on the results of the statistical test, the variable ability of HR (X2) has a positive and significant effect on the performance of teachers and TU (Y). Empirical evidence shows values ($t_{cal} > t_{table}$) ($5,479 > 1,977$) and $\text{sig } 0.000 < 0.05$, the test conclusion of partial H2 is accepted. The results of statistical testing prove that with the ability of human resources, work will be easier to implement, save time and accuracy will be more guaranteed and performance will increase, this research supports research by [16].

The results of this study are not in line with the research [16] that the use of information technology has not been fully mastered, so that the performance of village apparatus is not optimal.

The Influence of Information Technology Utilization and Human Resources Competencies on Teacher and TU Performance

The results of the statistical test showed that the influence of the use of information technology (X1) and human resource ability (X2) simultaneously had a positive and significant effect on the performance of teachers and TU (Y). The test results proved ($F_{cal} > F_{table}$) ($49,168 > 3.06$) and $sig\ 0.000 < 0.05$. H3 was accepted, the results of the research that the use of information technology and supported by the ability of human resources to work became more accurate. The results of the study support previous research conducted by [17] that human resource competence supported by the ability to take advantage of information technology advances will produce better performance. This means that the competence of village officials and being able to master information technology will result in an increase in the performance of village apartments. So that the village becomes more accomplished because everything that is done can be measured in real terms. The realization of work becomes easier, the accuracy of data can be accounted for properly and all activities can be administered in an orderly manner and last but not least that all the results of the work can be reported on time

IV. CONCLUSION

The results of the study show that the use of information technology has a positive and significant effect on the performance of teachers and TU. The ability of human resources has a positive and significant effect on the performance of teachers and TU while the simultaneous influence of the results of this study on the use of information technology has a positive and significant effect on the performance of teachers and TU. This means that the utilization of information technology and human resource capabilities affects the performance of teachers and TU

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