Apollo: Journal of Tourism and Business
Vol 3, Issue 1, January 2025, Page 313-322
ISSN: 2985-5810 (Media Online)
DOI: https://doi.org/10.58905/apollo.v3i1.405

# The influence of Artificial intelligence, Digital leadership on Organizational performance mediated by Innovative work behaviour in the Hotel Industry in Jakarta

Egabetha Amirah Yudhaputri[1], Willy Arafah[2], Sarfilianty Anggiani[3]

Departement of Management, Faculty of Economics and Business, Universitas Trisakti, Jakarta, Indonesia

Author Email: egabetha@trisakti.ac.id[1*] , willy.arafah@trisakti.ac.id[2] , sarfilianty@trisakti.ac.id[3]

Orcid: https://orcid.org/0000-0003-4310-8022[1], https://orcid.org/ 0000-0003-4598-5790[2] , https://orcid.org/ 0009-0006-7085-0459[3]

**Abstract.** This study aims to analyse the impact of the role of *innovative work behaviour* between *artificial intelligence and digital leadership on* improving *organizational performance* at hotel industry in Jakarta. This research uses quantitative methods with*cross-sectional* data collection. This study consists of 8 hotels with a total sample size of 124 respondents. Data were collected using a questionnaire distributed to 124 managerial level leaders at 4-star and 5-star hotels in Jakarta. This research data analysis uses SPPS for descriptive statistics and *Structural Equation Modeling* (SEM) PLS for hypothesis analysis. The results showed that *artificial intelligence and digital leadership* does not have a direct effect on *organizational performance* but with mediation can strengthen the influence so that *artificial intelligence and digital leadership* has a significant effect on *organizational performance.* The mediating role of using *innovative work behaviour* variables in this study has produced research findings that can strengthen the influence of *artificial intelligence, digital leadership* variables on improving *organizational performance* in the hotel industry in Jakarta. The managerial implication of this research is that *artificial intelligence* can be developed into the main management strategy in improving business and increasing literacy and innovative behaviour related to technology both *artificial intelligence* and other digital skills such as emphasizing digital and innovative culture.

**Keywords:** Artificial Intelligence, Digital Leadership, Hotel Industry, Innovative Work Behavior

## 1 Introduction

Employee performance in an industry or organization is often considered as the spearhead in the company because the end result has an impact on *organizational* performance. Improving employee performance is a major goal for every organization as a result of increased competition between organizations and this presents actions and behaviors related to organizational goals. Employee performance is also considered an important activity for human resource management. It is a key factor to improve *organizational performance*. According to Plaskoff (2017) companies that prioritize employee performance, and employee satisfaction as the main point, before customers and *stakeholders*, the company's performance will increase. Organizations are required to take care of their employees and value their work because they are the foundation for its survival. An organization that has poor *organizational performance*can experience problems especially if faced over a long period of time. The problems that can be faced are financial and non-financial, both from a decrease in profits each year, a decrease in the number of employees to the end of business closure if not done properly. One of the important points of the sustainability of an organization can be seen in the increase or decrease in *organizational performance.*

Determining the right resource management strategy can be a key factor in improving *organizational performance*. Especially the application of strategies in the field of service industries such as tourism, hospitality, *food & beverage*, and others. This is based on the fact that customer satisfaction mainly comes from the performance of employees who provide services to customers, currently the term *experimental experience* has emerged which is the most popular creative economy trend in 2023-2024[1]. According to the Ministry of Tourism and Creative Economy [1]Hotel is a business of providing accommodation in the form of rooms in a building, which can be equipped with food and beverage services, entertainment activities, and / or other facilities on a daily basis with the aim of making a profit.In the current era, the hospitality industry is growing rapidly, covering

Apollo: Journal of Tourism and Business
Vol 3, Issue 1, January 2025, Page 313-322
ISSN: 2985-5810 (Media Online)
DOI: https://doi.org/10.58905/apollo.v3i1.405

various types of accommodation such as hotels, resorts, villas, hostels, and others. The advancement of the economic world and the advancement of digital technology, allows the hotel industry to continue to grow rapidly in this era. Currently, various 3-star and above hotels have provided facilities that keep up with the latest trends, such as *rooftop bars*, *infinity* pools, *fine dining* restaurants, and spa services. Hotels also provide digital facilities, such as online booking of hotel rooms, digital keys, *virtual assistants*, and robot butlers. Creative economy trends that are predicted to be popular are the use of *data analytics* and *machine learning*.

Based on survey data from the DKI Jakarta tourism statistics center, it was found that the number of 4 and 5 star hotels is less than the number of non-star hotels (3 stars and below). However, based on survey data, it is also obtained that the activity of the hotel industry is increasing with the increasing number of room occupancy rates. Based on data from 4 (four) star hotel room occupancy rate of 45.23 percent is the highest TPK compared to other star hotels (Statistical data, 2024). This increase in occupancy shows that the interest in hotels staying in the DKI Jakarta area is higher in 4-star hotels and above. The hotel industry itself has several key components that are important for the success of its business, namely from the aspect of customer service, aspects of accommodation and facilities (in terms of room quality and supporting facilities), aspects of restaurants and culinary, aspects of cleanliness and security, and aspects of technological innovation. This is a challenge in the hotel industry, including fierce competition, changing travel trends, and the influence of social media. The hotel industry must always innovate and adapt to stay relevant and attract guests.

Over the past few decades, the development of technology has shown rapid growth. This development began with the era of revolution 1.0 until now it has reached the era of revolution 4.0 which is also called the era of *Internet of Things.* The rapid development of digital technology has brought the business world to a big wave of business digitalization. The implementation of digitalization in the business industry is increasing due to rapid developments in digital technologies such as the *Internet of Things*, *big data* analytics, *artificialintelligence*, and *cloud computing*. Digital transformation is an important part of the rapidly changing business world as it involves using digital technologies to create or modify existing business cultures, processes, and customer experiences to facilitate the fulfillment of market and business needs.

In the context of market globalization and internationalization, innovation, product or service quality, and customer needs have encouraged companies to integrate information technology into the company's managerial approach. Especially when discussing in the service industry such as hospitality that an important component in the hotel industry is technological innovation. Based on the analysis of the application of *artificial intelligence* in work comprehensively can use features to track employee behavior in the workplace, assess productivity and provide recommendations related to employee work. These applied features are considered to be able to assist employees in improving their job performance which provides efficiency in company operations[2]. The role of technology in improving is critical to achieving organizational goals such as operational excellence, financial targets, and customer satisfaction. The organization's continuous investment in AI and other information technology (IT) has a huge contribution to improving business processes, equipping employees with continuous knowledge and training, thus it can have a direct impact on improving *organizational performance*[3]. This is in line with previous research conducted in government companies in Arabia which shows that the application of *artificial intelligence* has a significant impact on *organizational performance* [4]. In this research, it is discussed that the application of *artificial intelligence* cannot stand alone where there must be support from other variables such as the application of *organisational* creativity in corporate strategy which ultimately improves *organizational performance.*

But in addition to the application of *artificial intelligence* in organizations, a leader is important because he or she has the role to select, equip, train and influence one or more followers. In addition, when followers value and feel connected to the leader, they will be more motivated and ready to work enthusiastically compared to forced compliance. As explained, the digital era has emerged, both the application of *artificial intelligence* in work activities to the application of leadership styles that evolve into digital leadership.

In this new era, leaders need to keep up with technology and gain knowledge of the latest changes in organizational structures. These changes bring unavoidable demands for organizations to be part of the digitalization of the business world. The mandatory transformation from conventional leadership to digital leadership provides a theoretical shift in leadership literature from a traditionally controlled perspective to an empathetic and skillful problem-solving perspective. Leaders who use digital technology as a leadership style can be attributed to the transformation of leadership style to *digital leadership.* Thurlings *et, al.*, (2015), argue that innovation tends to vary depending on the behavior of employees in the organization and is seen as an important factor for the success and survival of the organization. In the era of globalization, the increasing use of *artificial intelligence*as the basis for the search for knowledge and the manufacture of products shows that, innovative work behavior is very important for the survival of the organization. This is supported by research which states that the importance of employee psychological perceptions will increase work engagement and will ultimately increase innovation behavior and lead to improved company performance[5]. In addition, the results of the study stated

Apollo: Journal of Tourism and Business
Vol 3, Issue 1, January 2025, Page 313-322
ISSN: 2985-5810 (Media Online)
DOI: https://doi.org/10.58905/apollo.v3i1.405

that innovation is a risky activity, so strong support is needed from those who have legitimate power such as direct supervisors to save employees if the innovation process does not go well or even fails[5].

Organizational support including the application of *artificial intelligence* can be assumed that the company is innovating, where employee innovation is stated to improve the performance of employees which ultimately shows increased organizational performance. This is supported in previous research which states that the application of *artificial intelligence* has a significant effect on employee innovation[6]. When discussing forms of support, care in the diversity of individual employees in terms of psychological, skills and abilities of employees by the company plays an increasing role in employee performance. Especially in the service world where employees are the main asset serving customers.

Technological advances are changing the operational order of the tourism industry, where hospitality in particular has a significant impact on opinions in the tourism sector. When referring to previous research that has discussed the application of technology in this case, especially *artificial intelligence* in companies in the service sector such as hospitals or banking, it is stated that the application of technology offers a variety of choices, benefits, and services, to improve employee performance which leads to an increase in organizational performance. In this regard, the tourism industry, especially hospitality where services to customers are large enough to use technology.

The current phenomenon where the experience of customers is based on the trend of experiencing digital convenience with the existence of *online booking,* room service with applications and others[1]. This makes the hospitality industry, especially 4 and 5 stars with better standards, must develop applications in *artificial intelligence* in company operations. In other research conducted by [7] on employees of public organisations in Thailand, found that innovative work behaviour has a positive relationship with organizational performance. The results also show that innovative work behaviour positively mediates the relationship between innovation-related organisational climate and organisational performance. Based on this phenomenon and some literature studies suggest that it is necessary to look at individual employee factors to further deepen the results of the research such as innovative work behavior to improve organizational performance and in relation to the implementation of artificial intelligence. The speed of technological progress today must be matched by taking practical steps and strategies in stakeholders that can be implemented in real terms. Currently, what has been done is to increase the competence of human resources in the field of tourism, but another step that needs to be considered is how to implement the right strategy in the organisation so as to produce high employee performance .

Based on this, this study will look at how the application of technology affects *organizational performance* in the hospitality industry specific in 4star and 5 star hotel in Jakarta. But not only on the variable application of technology*(artificial intelligence)* but will see how the *digital leadership* variable can affect organizational performance. Berdasarkan dari literatur sebelumnya yang menyatakan bahwa kreatifitas dan inovasi dari karyawan dapat mempengaruhi secara tidak langsung So that the purpose of this study is to see how the influence of artificial intelligence, digital leadership on organizational performance is mediated by innovative work behavior.

## 2 Literature Review

*Artificial Intelligence* (AI) is a computer system that has the ability to perceive, learn, judge, or plan without being explicitly programmed to follow predefined rules or sequences of actions throughout the process (Demlehner and Laumer, 2020). In the past, most AI technologies were model-driven; where the nature of the application was studied and models were mathematically formed to describe it[8]. Today, *artificial intelligence* is known as a general term that involves the use of computers to model intelligent behavior with minimal human intervention[9]. Conceptually, *artificial intelligence* is the ability of a system to correctly interpret external data, learn from that data, and use that learning to achieve specific goals and tasks through flexible adaptation Makarius *et al.* (2020). Based on some of these technologies, *artificial Intelligence* can be concluded as a set of computers or machines or applications that are capable of learning and using the learning simulation to model intelligent behavior with minimal human intervention so as to achieve a specific task or goal.

*Digital leadership* is defined by the ability of leaders to take appropriate actions to manage organizational digitalization and involves leader qualities that positively influence the attitudes and behaviors of organizational members affected by digital technology, including specific competencies in strategic management and technology management[10]. *Digital leadership* is defined by describing that leaders must be aware of the latest technological developments; decide which are threats or opportunities; manage their impact on products, services, and internal organization; and simultaneously lead employees amidst uncertainty[11]. Leaders should act as role models by fostering a supportive attitude towards change and ensuring that employees are digitally savvy. In addition, the most mentioned attributes of leaders in the digital age are visionary, digitally savvy, highly collaborative, adaptable, motivating, creative and selfless[11]. *Digital leadership* is defined as a type of leadership that has

Apollo: Journal of Tourism and Business
Vol 3, Issue 1, January 2025, Page 313-322
ISSN: 2985-5810 (Media Online)
DOI: https://doi.org/10.58905/apollo.v3i1.405

innovative digital skills and can digitise business processes with the help of mobile devices, software, and IT-connected devices and personalise them according to the target to be achieved[12].

*Innovative work behavior* is the deliberate creation, introduction, and application of new ideas in a work role, group, or organization, to benefit the performance of the role, group, or organization[5]. According to Woodman *et al,* [13] *innovative behavior* cannot be formed independently, but is a process of a continuous interaction between individuals and interrelated situations. The situation can come from the influence of the organization and the social environment of the employee or individual. *Innovative work behavior* is defined as individual behavior directed at the initiation and deliberate introduction (in a work role, group or organization) of new and useful ideas, processes, products, or procedures [14,15]. *Innovative work behavior* is limited to deliberate efforts to provide new useful results, this includes the initiation and implementation of innovations[15]. During the process of innovating, the first thing that happens in organizations is that innovative thoughts and ideas must be freely shared within the organization and supported by leaders in a way that turns into actions that benefit the organization. Based on this thinking, *innovative behavior* triggers changes and transformations in processes, products, and services and improves management and innovation in the organization[12]. In conclusion, *innovative work behavior* is theprocess of creating, introducing, and implementing new ideas in the role of an individual, group, or organization, in order to benefit from the performance of the role, group, or organization for the survival of the organization.

*Organizational performance* is defined as an indicator that assesses the extent to which management is successful in utilizing financial resources, especially in managing investments to generate profits for shareholders[16]. This explains that *organizational performance* is a reflection of the successful management of company resources[17,18]. This shows that *organizational performance* is reflected in the expected results based on the behavior of employees in it. Performance is also a reflection of how industry structure and dynamics affect a company's profits. More specifically, performance can be measured through aspects such as efficiency, company growth, employment opportunities, professional work ethics, employee welfare, and company reputation. Performance itself is also a multicomponent concept and a person's fundamental level to be able to distinguish aspects of performance, namely behavioral involvement in the results to be achieved [19].

According to Sinnaiah *et al,* [20]At the individual level, organizational performance is defined as analyzing a series of improvements to achieve organizational goals. In general, various factors can be attributed to organizational performance, such as organizational structure, conflict, cross-cultural and social influences. [20]. *Organizational performance* is the ability of the organization to carry out each of the tasks assigned to the organization to achieve predetermined goals, objectives, mission and vision of the organization (source). *Organizational performance* not only focuses on achieving results or goals, but also emphasizes the implementation process and resources to achieve its goals[21].

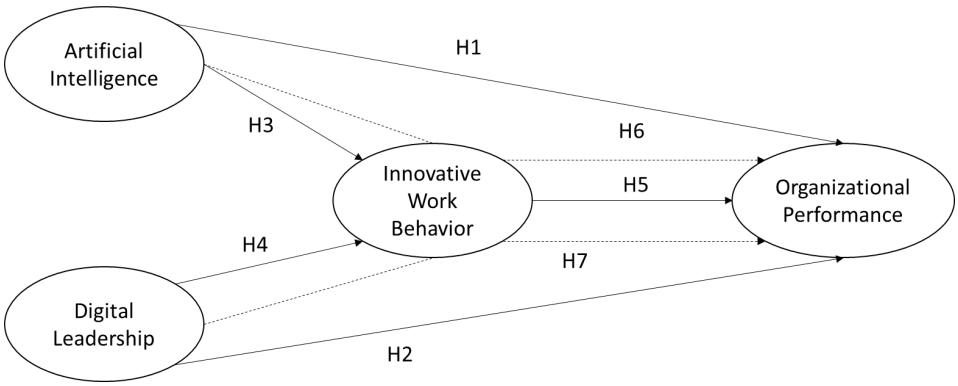


**Figure 1.** Conceptual Framework

Based on the theoretical study and framework explained above, the hypothesis in this research is:

H1: *Artificial intelligence* has a positive influence on *organizational performance*.
H2: *Digital leadership* has a positive influence on *organizational performance*.
H3: *Artificial intelligence* has a positive influence on *Innovative work behavior*.
H4: *Digital leadership* has a positive influence on *Innovative work behavior*.
H5: *Innovative work behavior* has a positive influence on *organizational performance*.
H6: *Artificial intelligence* has a positive influence on *organizational performance* mediated by *Innovative work behavior.*
H7: *Digital leadership* has a positive influence on *organizational performance* mediated by *Innovative work behavior*.

Apollo: Journal of Tourism and Business
Vol 3, Issue 1, January 2025, Page 313-322
ISSN: 2985-5810 (Media Online)
DOI: https://doi.org/10.58905/apollo.v3i1.405

# 3 Methodology

## 3.1 Instrument

This research was conducted using a quantitative correlational approach with hypothesis testing using clausality. A quantitative approach is a research method that focuses on collecting and analyzing data in the form of numbers[22,23]. This method relies on objective measurement and statistical analysis of data obtained through questionnaires, surveys, tests, or other research instruments[23,24]. The data sources used in this research are primary data sources. Primary data sources are direct data sources that are obtained directly[24]. The method of obtaining respondents from this questionnaire is by conducting a survey distributing questionnaires to respondents or samples. This research questionnaire was carried out using a questionnaire instrument with *google form / g-form*.

The questionnaire in this study basedn on several modifications from several previous studies. Research by Nuseir & Refae [25] between *artificial intelligence* and *organizational performance* with results in research conducted in the tourism industry in Arabia 2 years later which states that *artificial intelligence* and marketing strategies have a positive relationship with *organizational performance.* Then research that measures *digital leadership* has a role in company performance in the Indonesian tourism industry [26] Other research by Erhan, *et al.,* [15] who tested *digital leadership* on *innovative work behaviour*. The results of this study state that *digital leadership*significantly affects *innovative work behaviour.* The last research by Chen *et al.,* [6] which tested *artificial intelligence*variables on *innovative work behaviour*. The results of this study state that the application of *artificial intelligence*has a significant effect on *innovative work behaviour.*

The data analysis method in this study consists of two analysis methods, namely analyzing each variable using descriptive statistics and analysis methods. Descriptive statistics in this study test the average value (mean), standard deviation, maximum value, minimum value, and characteristics of respondents with the SPSS version 25 tool. Hypothesis testing and analysis of the influence between variables both direct and indirect effects using *Structural Equation Modeling* (SEM). The analytical method used in this research is *Structural Equation Modeling* (SEM) because it can explain the relationship between many variables[23]. SEM is a multivariate statistical technique that allows direct analysis of variables, parameters, and measurement error. SEM can analyze the relationship between variables and their adjusted values, the relationship between variables and other variables, and also determine the magnitude of measurement error. In addition to unidirectional relationships, SEM also allows the analysis of bidirectional relationships that are common insocial and behavioralscience[27,28].

## 3.2 Population and Sampel

The population in this study is in the form of individual analysis units, namely the managerial level at 4 Star Hotels and 5 Star Hotels in Jakarta. Based on the data, the population of this study consists of approximately 8 companies with individual units of analysis which are managerial level employees at 4 Star Hotels and 5 Star Hotels in Jakarta based on the results of interviews with the hotel association. The population hotel data consists of Intercontinental Hotel, Santika Premier, Santika, Accor Hotel Group, Grand Aston, The Westin Jakarta, Le Meridien, Mercure, Mulia, Sheraton Grand Jakarta, The Rirz-Carlton Jakarta, Grand Hyatt Jakarta, Best Western Hotel, Fairmont, Double Tree by Hilton Jakarta, Four Season Hotel Jakarta, JW Marriot Hotel Jakarta, and Novotel Jakarta. The sample in this study used a *non-probability* sampling method where the technique used was *purposive sampling*, namely deliberate *sampling* according to the required sample requirements taken using certain criteria. The criteria in this sample are 1) middle leaders at 4-star and 5-star hotels; 2) top leaders at 4-star and 5-star hotels in Jakarta.

# 4 Result and Discussion

## 4.1 Validity and Reability

*Convergent Validity* test, which aims to assess the extent to which indicators on a construct have a significant and relevant relationship in measuring the same latent variable. Convergent validity relates to the principle that the measures of a construct should be highly correlated [21]. *Convergent Validity* is used to measure the level of validity of each latent variable as measured by the AVE value. The expected AVE value is more than 0.5.

Apollo: Journal of Tourism and Business
Vol 3, Issue 1, January 2025, Page 313-322
ISSN: 2985-5810 (Media Online)
DOI: https://doi.org/10.58905/apollo.v3i1.405

**Tabel 1.** *Convergent Validity*

| Variable | *Average Variance Extracted* (AVE) |
|---|---|
| Artificial intelligence | 0.633 |
| Digital leadership | 0.663 |
| Innovative work behavior | 0.669 |
| Organization Performance | 0.642 |

Source: SmartPLS (2025)

Then for measuring reliability on research variables where a variable is declared reliable if the value obtained is greater than 0.70 [24].

**Table 2.** Reliability Test

| Variabel | *Cronbach's Alpha* | Decision |
|---|---|---|
| Artificial intelligence | 0.856 | Reliabel |
| Innovative work behavior | 0.937 | Reliabel |
| Digital Leadership | 0.872 | Reliabel |
| Organization Performance | 0.904 | Reliabel |

Source: SmartPLS, (2025)

Analysis of the relationship between latent variables or evaluation of the inner model conducted in the study includes the test of the coefficient of determination (R2). The calculation results show a *predictive-relevance* value of 0.9129 or 91.29%, so the model deserves to be said to have a relevant predictive value. The *predictive-relevance* value of 91.29% indicates that the data diversity that can be explained by the model is 91.29% or in other words, the information contained in the data 91.29% can be explained by the model. While the remaining 8.71% is explained by other variables (which have not been contained in the model) and *errors*. So it can be explained that the PLS model formed is good, because it can explain 91.29% of the overall information.

In addition, the coefficient of determination*(R-square*) is a statistical indicator used to assess the extent to which the dependent variable can be explained or influenced by the independent variables in a structural model. The results of data analysis that have been carried out in this study produce the following *R-square* values:

**Table 3.** Coefficient of Determination Results

| Variabel | *R Square* | *Adjusted R Square* | Description |
|---|---|---|---|
| Innovative work behavior | 0.671 | 0.663 | Strong |
| Organizational Performance | 0.735 | 0.721 | Strong |

Source: SmartPLS, (2025)

## 4.2 Statistic Descriptive

This study involved 124 respondents who had filled out the research questionnaire that had been distributed. The characteristics of respondents in this study are defined in the demographics ofrespondents related to generation, position, length of work, and gender. The explanation for each category of respondent demographics is described in the following discussion:

**Table 4.** Descriptive Statistic

| Title | Quantity | % |
|---|---|---|
| **Generation** | | |
| Generation X | 60 | 48.40% |
| Generation Y | 64 | 51.60% |
| **Position** | | |
| Lower Management/ Supervisor | 33 | 26.60% |
| Middle Management/ Manager/ Vice Manager | 44 | 35.50% |
| Top Management/ GM | 47 | 37.90% |

Apollo: Journal of Tourism and Business
Vol 3, Issue 1, January 2025, Page 313-322
ISSN: 2985-5810 (Media Online)
DOI: https://doi.org/10.58905/apollo.v3i1.405

| | | |
|---|---|---|
| **Tenure** | | |
| 3 - 5 years | 46 | 37.10% |
| > 5 years | 53 | 42.70% |
| < 3 years | 25 | 20.20% |
| **Gender** | | |
| Male | 95 | 76.60% |
| Female | 29 | 23.40% |
| **Jumlah** | **124** | **100%** |

Source: SPSS (2025)

Table 3. above shows that 64 respondents or 51.60% of respondents in this study were generation Y. The remaining 60 respondents were generation Z or 48.40%. So based on the percentage comparison of generations in this study, it can be concluded that more respondents in generation Y filled out the questionnaire and worked as a management level in the hotel industry in Jakarta.

In general, millennials or generation Y are referred to as a generation that embraces a configurati culture, in the sense that they encapsulate innovative aspects with some bridging features to the previous generation (Generation X). When the balance is lost, one of the main options open to employees of the millennial generation or generation Y has the characteristic of leaving the company when they feel that the company does not contribute to them. Therefore, for generation Y, if they feel comfortable enough with the company, they will stay and will contribute, so it is very natural that at the current age of 30 years - 40 years old, they are already at the managerial level [25][29].

When discussing the age or generation working in hospitality, this is in line with the length of work data, namely in the results of statistical descriptions it is found that respondents are dominant with employees who work for more than 5 years at 42.70% where after are employees with 3-5 years of work. Referring to the previous explanation that the managerial level can be occupied by employees who have worked for at least 3 years because they have adapted to the company culture so that they can be given the trust to occupy the leadership or managerial level. This is in line with the theory of organizational behavior and management that in career planning, length of work is one of the things that indicates an employee has a position apart from other factors[30,31].

In the demography of positions, it was found that those who filled the dominant at the *top management* level were 47 people or 37.90%, which differed slightly from the middle management level, which was 44 people or 35.50%. This shows that the level of decision making when it comes to company strategy is occupied at the middle management and top management levels, where this is in accordance with research which states that most decision making occurs at the *middle*level to the highest level or *middle management*and *top management*[30,32]. In addition, in the organizational structure in the hospitality sector, decision making is mostly carried out by the *top management* and *middle management levels*, where the *lower management level* is more directed to the operational team or field implementers.

Based on demographic description data found in this study that the dominant gender is male at 76.69% or as many as 95 respondents. This shows that in the hotel industry today it is still predominantly male gender who plays a role at the managerial level as a decision maker. Although it is not denied that as many as 23.40% of the female gender are at the managerial level in the Jakarta hotel industry. However, this data cannot be taken as a conclusion that female gender employees cannot occupy leading positions because this is only based on respondents who filled in this research questionnaire and the demographic area of Jakarta only..

## 4.3 Hypothesis Analysis

**Table 5.** Hypothesis Testing Result

| Hyphotesis | Estimate (β) | *P-Values* | Result |
|---|---|---|---|
| H1: *Artificial intelligence* has a positive influence on organizational performance. | 0.0720 | 0.0900 | Rejected |
| H2: *Digital leadership* has a positive influence on organizational*performance.* | 0.0120 | 0.4470 | Rejected |
| H3: *Artificial intelligence* has a positive influence on *Innovative work behavior*. | 0.1400 | 0.0260 | Supported |
| H4: *Digital leadership* has a positive influence on *Innovative work behavior.* | 0.2730 | 0.0000 | Supported |
| H5: *Innovative work behavior* has a positive influence on organizational*performance*. | 0.8280 | 0.0000 | Supported |

Apollo: Journal of Tourism and Business
Vol 3, Issue 1, January 2025, Page 313-322
ISSN: 2985-5810 (Media Online)
DOI: https://doi.org/10.58905/apollo.v3i1.405

| | | | |
|---|---|---|---|
| H6: *Artificial intelligence* has a positive influence on organizational *performance* mediated by *Innovative work behavior*. | 0.1157 | 0.0255 | Supported |
| H7: *Digital leadership* has a positive influence on organizational *performance* which is mediated by *Innovative work behavior*. | 0.2262 | 0.0003 | Supported |

From the table, it is known that the coefficient value of *Artificial intelligence* is 0.0720, which means that if the perception of *Artificial intelligence* increases, the perception of *organizational performance* will increase. The P-value is 0.0900> 0.05 (alpha 5%), so $H_1$ is not supported. It is concluded that statistically at the 95% confidence level there is no effect of perceived *artificial intelligence* on perceived *organizational performance*. From the table, it is known that the coefficient value of *Digital leadership* is 0.0120, which means that if the perception of *Digital leadership* increases, the perception of *organizational performance* will increase. P-value of 0.4470> 0.05 (alpha 5%) then $H_2$ is not supported. It is concluded that statistically at the 95% confidence level there is no effect of perceived *Digital leadership* on perceived *organization performance*. From the table, it is known that the coefficient value of *Artificial intelligence* is 0.1400, which means that if the perception of *Artificial intelligence* increases, the perception of *Innovative work behavior* will increase. P-value of 0.0260 <0.05 (alpha 5%) then $_{H3}$ is supported. It is concluded that statistically at the 95% confidence level there is a positive influence on the perception of *Artificial intelligence* on the perception of *Innovative work behavior*.

Based on in the coefficient value of *Digital leadership* is 0.2730, which means that if the perception of *Digital leadership* increases, the perception of *Innovative work behavior* will increase. P-value of 0.000 <0.05 (alpha 5%) then $H_3$ is supported. It is concluded that statistically at the 95% confidence level there is a positive influence on the perception of *Digital leadership* on the perception of *Innovative work behavior*. The coefficient value of *Innovative work behavior* of 0.8280 means that if the perception of *Innovative work behavior* increases, the perception of *organizational performance* will increase. The P-value of 0.0000 <0.05 (alpha 5%) then $_{H5}$ is supported. It is concluded that statistically at the 95% confidence level there is no positive effect of perceived *Innovative work behavior* on perceived *organization performance*.

Based on the test results, it is known that the coefficient of the indirect effect of *Artificial intelligence* on organizational performance through *Innovative work behavior* is 0.1157, which means that if the perception of *Artificial intelligence* rises, the perception of *Innovative work behavior* will rise, causing the perception of organizational performance to rise. The significance test results show a P-value of 0. 0255 <0.05 (5% alpha), so $H_6$ is supported. It is concluded that statistically at the 95% confidence level there is a positive influence on the perception of *Artificial intelligence* on the perception of organizational performance through the perception of *Innovative work behavior*. Based on the test results, it is known that the coefficient of the indirect effect of *Digital leadership* on organizational performance through *Innovative work behavior* is 0.2262, which means that if the perception of *Digital leadership* increases, the perception of *Innovative work behavior*will increase, causing the perception of organizational performance to increase. The significance test results show a P-value of 0. 0003 <0.05 (5% alpha), so $H_7$ is supported. It is concluded that statistically at the 95% confidence level there is a positive influence on the perception of *Digital leadership* on the perception of organizational performance through the perception of *Innovative work behavior*.

## 5 Conclusion

This study broadly consists of demographic characteristics that are quite diverse with the dominance of gender is male almost exceeding 50% of the total respondents. In addition, from other demographic characteristics, this research divides into length of work, position and generation of employees. The results of this study can be concluded that employees in the current 4-star and 5-star hotel industry who are at the managerial level have worked for more than 5 years, with the dominant position at the *General Manager* level. This conclusion implies that employees who are in decision-making positions in the 4-star and 5-star hotel industry in Jakarta are dominated by *general managers* with higher levels of generation Y or millennials.

Based on the results of the study it was found that in the hospitality industry the application of *artificial intelligence* is one of the important innovation tools, but it will be effective when supported by the readiness of individual employees. For a dynamic hospitality industry, using *artificial intelligence* alone is not enough to improve organizational performance, but it must be balanced with the readiness of innovative human resources who have an attachment to the company. This will maximize the company's innovative, dynamic, and flexible strategy for customer satisfaction. In addition, as a service business that prioritizes customers, individual behavior is something that must be considered so that strategic management related to human resource management becomes one of the main aspects and is supported by the application of technological tools such as *artificial intelligence.* For service businesses based on the results of this study, *artificial intelligence* is a supporting function

Apollo: Journal of Tourism and Business
Vol 3, Issue 1, January 2025, Page 313-322
ISSN: 2985-5810 (Media Online)
DOI: https://doi.org/10.58905/apollo.v3i1.405

in improving company performance, and one of the strategic steps that must be implemented with in-depth training in leaders who are ready for digitalization and the current digital era.

The managerial implications of this study stated that the application of *artificial intelligence* can be developed into a major management strategy in business improvement as well as increasing understanding and literacy related to technology both *artificial intelligence* and other digital skills.. Things that companies can do in increasing innovation and also the application of *artificial intelligence* can be in the form of creating a culture of innovation that can encourage creativity and experimentation with digital technology. This can also be applied to increase *innovative work behavior.* Programs that can be implemented by developing innovation programs that collaborate between departments, and providing *rewards* for employees or departments that provide innovative ideas in improving departmental performance. In addition, the company also needs to provide sufficient support and resources to be able to implement innovative ideas on a wider scale.

The second managerial implication is to pay attention to the competence of leaders at the lower, middle and upper levels. This is related to the research results which state that *digital leadership* does not have a direct effect on improving organisational performance. So that companies must think about strategic steps to improve and implement a digital and innovative culture. digital and innovative culture in the company due to technological advances and increasingly fierce competition in the digital era. The hospitality industry as one of the dynamic service industries must implement a flexible and dynamic human resource management strategy with the development of the technological era. The provision of training both *soft skills* and *hard skills* to the managerial level must be one of the main steps taken so that leaders can become role models and examples for other employees.

This research still experiences several limitations, namely, on the object of research where this research is only focused on the hotel industry in Jakarta and specifically on 4 stars and 5 stars so that the distribution and generalisation of data cannot be used as a whole for policies throughout Indonesia. On the other hand, it is known that 4-star and 5-star hotels that have the characteristics of having developed technology are found in tourism destinations such as Bali, Lombok, Sumatra, Bandung and other tourist destinations that are being developed by the government. In addition, other studies can develop other variables that can influence such as organisational culture, psychological safety, and understanding of digital literacy in employees, and develop long-term research methods so that they can get more in-depth and generalisable research results.

## References

[1] Kemenparekraf. Outlook Pariwisata dan Ekonomi Kreatif. Deputi Bid Kebijak Strateg Kementeri Pariwisata dan Ekon Kreat Badan Pariwisata dan Ekon Kreat Republik Indones Jakarta – Indones [Internet]. 2023;1–110. Available from: https://bankdata.kemenparekraf.go.id/upload/document_satker/a6d2d69c8056a29657be2b5ac3107797.pdf

[2] Tong S, Jia N, Luo X, Fang Z. The Janus face of artificial intelligence feedback: Deployment versus disclosure effects on employee performance. Strateg Manag J. 2021;42(9):1600–31.

[3] Olan F, Ogiemwonyi Arakpogun E, Suklan J, Nakpodia F, Damij N, Jayawickrama U. Artificial intelligence and knowledge sharing: Contributing factors to organizational performance. J Bus Res [Internet]. 2022;145(February):605–15. Available from: https://doi.org/10.1016/j.jbusres.2022.03.008

[4] Almheiri HM, Ahmad SZ, Abu Bakar AR, Khalid K. Artificial intelligence capabilities, dynamic capabilities and organizational creativity: contributing factors to the United Arab Emirates Government's organizational performance. J Model Manag. 2024;19(3):953–79.

[5] Sulistiawan J, Andyani D. Psychological Contracts, Innovative Work Behavior, and Knowledge Sharing Intention: the Role of Work Engagement and Job Resources. J Apl Manaj. 2020;18(4):741–53.

[6] Chen S, Zhang X, Pan L, Hu M. Innovative Work Behavior and Job Performance of Corporate Employees in the Age of Artificial Intelligence. Appl Math Nonlinear Sci. 2024;9(1):1–17.

[7] Waiyawuththanapoom P, Tiratittam P, Aunyawong W, Keerativutisest V. The Impact of Innovation Related Organizational Climate and Organizational Performance: Mediating Role of Innovative Work Behavior in Thailand. Int J Innov Creat Chang www.ijicc.net [Internet]. 2020;14(10):2020. Available from: www.ijicc.net

[8] Anantrasirichai N, Bull D. Artificial intelligence in the creative industries: a review [Internet]. Vol. 55, Artificial Intelligence Review. Springer Netherlands; 2022. 589–656 p. Available from: https://doi.org/10.1007/s10462-021-10039-7

[9] Wamba-Taguimdje SL, Fosso Wamba S, Kala Kamdjoug JR, Tchatchouang Wanko CE. Influence of artificial intelligence (AI) on firm performance: the business value of AI-based transformation projects. Bus Process Manag J. 2020;26(7):1893–924.

[10] El Sawy OA, Kræmmergaard P, Amsinck H, Lerbech Vinther A. How LEGO Built the Foundations and

Enterprise Capabilities for Digital Leadership. MIS Q Exec [Internet]. 2016;15(2):141–66. Available from: https://aisel.aisnet.org/misqe/vol15/iss2/5
[11] Gilli K, Lettner N, Guettel W. The future of leadership: new digital skills or old analog virtues? J Bus Strategy. 2024;45(1):10–6.
[12] Karafakioglu E, Afacan Findikli M. The Mediating Role of Work Engagement in the Relationship Between Digital Leadership and Innovative Behavior and Organizational Agility. Int J Organ Leadersh. 2024;13(1):1–21.
[13] Woodman RW, Sawyer JE, Griffin RW. Toward a Theory of Organizational Creativity. Acad Manag Rev. 1993;18(2):293–321.
[14] De Jong J, Den Hartog DN. Measuring innovative work behaviour. Creat Innov Manag. 2010;19(1):23–35.
[15] Erhan T, Uzunbacak HH, Aydin E. From conventional to digital leadership: exploring digitalization of leadership and innovative work behavior. Manag Res Rev. 2022;45(11):1524–43.
[16] Ruggiero P, Cupertino S. CSR strategic approach, financial resources and corporate social performance: The mediating effect of innovation. Sustain. 2018;10(10).
[17] Gibson, C. B, Zellmer-Bruhn, M. E. Metaphors and Meaning: An Intercultural Analysis of the Concept of Teamwork. Adm Sci Quarterly,. 2001;46(2):274–303.
[18] Xin OK, Wider W, Ling LK. Human Resource Artificial Intelligence Implementation and Organizational Performance in Malaysia. Asia-Pacific Soc Sci Rev. 2022;22(3):18–37.
[19] Hidayat F, Sumantri S, Rumengan AE, Wibisono C, Khaddafi M. The Effect of Digital Leadership, Information Technology and Digital Competency on Employee Performance in the Digital Era: Mediating Role of Job Satisfaction. Int J Adv Soc Sci Humanit. 2023;2(2):61–8.
[20] Sinnaiah T, Adam S, Mahadi B. A strategic management process: the role of decision-making style and organisational performance. J Work Manag. 2023;15(1):37–50.
[21] Rafiq, M. Z. Impact of a balanced scorecard as a strategic management system tool to improve sustainable development: measuring the mediation of organizational performance through PLS-smart. Sustainability. 2020;
[22] Shukla T. Introduction to Multivariate Data Analysis. 2018.
[23] Hair J, Joseph F, William., C. B, Barry. J B, Rolph.E A. Multivariate Data Analysis. Seventh Ed. State U, editor. Harlow: Person; 2014.
[24] Sekaran U, Bougie R. Metode Penelitian untuk Bisnis: Pendekatan Pengembangan-Keahlian. Edisi 6. Jakarta Selatan: Salemba Empta; 2017.
[25] Nuseir MT, Refae G El. The role of artificial intelligence, marketing strategies, and organizational capabilities in organizational performance: The moderating role of organizational behavior. Uncertain Supply Chain Manag. 2022;10(4):1457–66.
[26] Lathabhavan R, Kuppusamy T. Examining the role of digital leadership and organisational resilience on the performance of SMEs during the COVID-19 pandemic. Int J Product Perform Manag. 2024;73(8):2365–84.
[27] Sarstedt M, Ringle CM, Hair JF. Partial Least Squares Structural Equation Modeling. In C. Homburg, M. Klarmann, & A. E. Vomberg (Eds.), Handbook of Market Research. Cham: Springer.; 2022. 587–632 p.
[28] Hair JF, Sarstedt M, Ringle CM, Gudergan SP. Advanced issues in partial least squares structural equation modeling (PLS-SEM). Thousand Oaks: Sage; 2018.
[29] Torsello D. Generation Y workers An empirical framework for cultural and organizational aspects. 2019;41(6):1330–47.
[30] Azizi MR, Atlasi R, Ziapour A, Abbas J, Naemi R. Innovative human resource management strategies during the COVID-19 pandemic: A systematic narrative review approach. Heliyon [Internet]. 2021;7(6):e07233. Available from: https://doi.org/10.1016/j.heliyon.2021.e07233
[31] Robbins SP, Judge TA. ORGANIZATIONAL BEHAVIOR, 18TH EDITION GLOBAL EDITION. 2019.
[32] Wagen, M V der. ., White L. Human Resources Management for the Event Industry. second edi. London & Newyork: Routledge; 2015.