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Virtual Assistant, Ai Interview Analytics And Selection Outcome In Federal Universities, South-South, Nigeria

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ABSTRACT

This study examined the relationship between artificial intelligence and selection outcome in federal universities, South-South, Nigeria, focusing specifically on Virtual Assistant and Employee Loyalty, and AI interview analytics and Selection Quality. The study was motivated by the growing reliance of federal universities on AI-driven administrative support tools, alongside the persistence of subjective, interview-based evaluation practices, both of which have implications for how supported staff feel and how consistently high-quality selection decisions are made. Specifically, the study examined the relationship between Virtual Assistant and Employee Loyalty; and determined the relationship between AI interview analytics and Selection Quality in federal universities, South-South, Nigeria. Two research questions and two null hypotheses were formulated in line with the specific objectives. The study was anchored on the Attraction-Selection-Attrition (ASA) theory. A survey research design was adopted. The study was carried out in the South-South geopolitical zone of Nigeria, covering the University of Port-Harcourt, University of Uyo, University of Benin, and University of Calabar. The population of the study comprised 28,125 senior academic and senior non-academic staff of the four universities, from which a sample size of 394 was determined using Taro Yamane's formula, with Bowley's proportional allocation method employed to distribute the questionnaire across the institutions. Face and content validity methods were used to validate the instrument, while reliability was confirmed using Cronbach's Alpha coefficients ranging from 0.902 to 0.948 across the study constructs, computed with the aid of the Statistical Package for Social Sciences (SPSS version 27). Out of 394 copies of the questionnaire administered, 348 copies were correctly completed and valid for analysis. Data were analysed using descriptive statistics, while hypotheses were tested using the Pearson Product Moment Correlation Coefficient at a 0.05 level of significance. Findings revealed a moderate positive and significant relationship between Virtual Assistant and Employee Loyalty in federal universities, South-South, Nigeria ($r = 0.521$, $p = 0.000 < 0.05$); and a very strong positive and significant relationship between AI interview analytics and Selection Quality in federal universities, South-South, Nigeria ($r = 0.714$, $p = 0.000 < 0.05$). The study concluded that artificial intelligence, through virtual assistant support and interview analytics, significantly strengthens both staff loyalty and the overall quality of selection outcomes in federal universities in South-South Nigeria. It was recommended that university administrators should invest in virtual assistant technologies to handle routine inquiries and administrative support, thereby boosting employee loyalty; and that recruitment panels should adopt AI interview analytics as a standard support tool during interview sessions to provide objective data on candidate performance and mitigate unconscious bias.

Keywords: Artificial Intelligence, Virtual Assistant, AI Interview Analytics, Employee Loyalty, Selection Quality, Selection Outcome, Federal Universities

INTRODUCTION

Background of the Study

The use of artificial intelligence (AI) across many sectors has transformed processes and results, with higher education being no exception. In Nigeria, particularly in the South-South region, federal universities are progressively integrating AI technologies, including virtual assistants and interview analytics tools, to improve staff support, teacher recruitment, and the overall quality of selection decisions. The use of artificial intelligence in overseeing the selection process has increasingly garnered global attention, as the task of identifying the most suitable candidates, and thereafter retaining them, has historically posed significant challenges for managers (Nawaz, Arunachalam, Pathi, & Gajenderan, 2024). Artificial Intelligence-based selection technologies have transformed the execution of selection processes generally, offering institutions the opportunity to support staff through conversational, always-available assistance, and to evaluate interview performance with a level of consistency that manual approaches struggle to achieve (Guenole & Feinzig, 2022).

A virtual assistant is a digital software programme or AI-powered system designed to provide support, assist with tasks, and perform various functions for users, typically in a conversational manner through text or speech (Abdeldayem & Aldulaimi, 2020). Virtual assistants leverage natural language processing and machine learning to understand queries and execute commands, and their capabilities continue to evolve, offering increasingly personalised and intelligent interactions that anticipate user needs (Rogers, 2021). AI interview analytics, on the other hand, leverage similar technologies to analyse candidate responses, non-verbal cues, and emotional sentiments during interviews, streamlining the evaluation process while enhancing objectivity through standardised assessment criteria (Interviewer.ai, 2024).

Interest in how AI-driven support systems shape staff commitment has intensified across Nigerian organisations in recent years. Williams, Emeka-Obiajunwa and Osuagwu (2025) found that retirement benefits significantly enhanced employee commitment in Awka South Local Government Area, Anambra State, Nigeria, illustrating that when institutions provide dependable, ongoing forms of support to their staff, whether through benefits schemes or, as this study explores, AI-driven administrative assistance, employees respond with stronger loyalty and commitment. Similarly, Remigius, Gbenga and Ngige (2025) found that compensation strategies significantly influenced the performance of commercial banks in Anambra State, Nigeria, reinforcing that the structures an organisation puts in place to support and reward its workforce have measurable consequences for how committed and productive that workforce becomes.

The quality of selection decisions is similarly shaped by the systems institutions deploy at the point of hiring. In the outsourcing sub-sector, Okafor, Okeke and Williams (2026) found that talent acquisition practices significantly enhanced the innovative business success of outsourcing firms in Delta State, Nigeria, suggesting that the rigour and sophistication of an organisation's talent evaluation practices, akin to AI interview analytics in this study, are strongly associated with the quality of resulting outcomes. Ajieh, Okeke and Williams (2026) found that employee expertise capital significantly influenced the innovativeness of private hospitals in Delta State, Nigeria, while Williams and Anyim (2021), in an earlier theoretical exploration, examined intellectual capital and performance in organisations, both reinforcing that the depth and quality of the human capital an institution selects has lasting implications for its performance, making the objectivity of tools such as AI interview analytics all the more important.

The experience and satisfaction of employees within the organisations that select them has also received growing attention. Abayol, Gbenga and Mbah (2025) found that organisational support for work-life harmony significantly predicted employee career advancement in quick service restaurants in South-East Nigeria, while Maduagwuna and Gbenga (2025) found that workplace diversity significantly influenced employee satisfaction in hospitality businesses in Anambra State, Nigeria. Both findings reinforce that supportive, well-managed organisational systems, whether in the form of inclusive practices or, as examined in this study, AI-driven virtual assistance, are consistently associated with more favourable employee outcomes, including loyalty.

The broader human resource management literature in Nigeria continues to affirm that the design of organisational systems carries consequences for sustainability and performance. Williams and Okeke (2025) found that economic factors of corporate sustainability significantly related to the performance of foam manufacturing firms, reinforcing that institutions, including public universities, that invest deliberately in the systems underpinning their core processes, such as virtual assistants and interview analytics tools, stand to gain in both staff commitment and decision quality over the long term. It is against this backdrop that the present study interrogates the relationship between artificial intelligence, specifically Virtual Assistant and AI interview analytics, and selection outcome, specifically Employee Loyalty and Selection Quality, in federal universities in South-South Nigeria.

Statement of the Problem

The integration of artificial intelligence into the selection and staff support processes of federal universities in South-South Nigeria presents both opportunities and challenges that warrant thorough investigation. Despite the growing deployment of virtual assistants to handle routine inquiries and administrative support, there remains limited understanding of whether, and how strongly, such tools translate into stronger employee loyalty, particularly in a public sector environment where staff turnover and disengagement remain persistent concerns.

A second problem concerns the quality of decisions made at the interview stage of selection. Traditional interview evaluation in many federal universities remains largely manual and subjective, relying heavily on the individual judgment of panel members, which can introduce inconsistency and bias into an otherwise consequential stage of the selection process. Although AI interview analytics promise more standardised, data-driven evaluation, their actual relationship with the quality of selection outcomes in this specific context has not been sufficiently interrogated.

The gap this study seeks to address is the lack of empirical evidence, within the specific context of federal universities in South-South Nigeria, of how Virtual Assistant relates to Employee Loyalty, and how AI interview analytics relates to Selection Quality. While the application of artificial intelligence to recruitment, selection, and workplace support has been examined extensively in other climes and sectors, comparatively little attention has been paid to its role in shaping staff loyalty and interview-stage selection quality within Nigeria's federal university system, particularly in the South-South geopolitical zone. This study therefore provides sector-specific insights and practical recommendations for enhancing staff retention and the integrity of interview-based selection decisions in federal universities.

Objectives of the Study

The broad objective of the study was to examine the relationship between artificial intelligence and selection outcome in federal universities, South-South, Nigeria. Specifically, the study sought to:

(iv) examine the relationship between Virtual Assistant and Employee Loyalty in federal universities, South-South, Nigeria.

(v) determine the relationship between AI interview analytics and Selection Quality in federal universities, South-South, Nigeria.

Research Questions

The following questions guided the study:

(i) How does Virtual Assistant relate with Employee Loyalty in federal universities, South-South, Nigeria?

(ii) What is the relationship that exists between AI interview analytics and Selection Quality in federal universities, South-South, Nigeria?

Hypotheses

The following null hypotheses were formulated to give direction to the study:

Ho_1: There is no significant relationship between Virtual Assistant and Employee Loyalty in federal universities, South-South, Nigeria.

Ho_2: There is no significant relationship between AI interview analytics and Selection Quality in federal universities, South-South, Nigeria.

Review of Related Literature

Artificial Intelligence

Artificial Intelligence (AI) is a domain within computer science and technology dedicated to creating machines and systems that can execute tasks necessitating human intelligence, spanning subfields such as machine learning, natural language processing, and expert systems (Johansson & Herranen, 2020). The primary objective of AI is to develop systems capable of emulating or exceeding human cognitive functions, such as perception, reasoning, comprehension, and decision-making (Guenole & Feinzig, 2022). Artificial intelligence possesses the capacity to transform numerous sectors, including higher education, by providing avenues for automation, optimisation, and enhancement of human capability, resulting in heightened efficiency, consistency, and objectivity (Rogers, 2021).

Virtual Assistant

A virtual assistant is a digital software programme or AI-powered system designed to provide support, assist with tasks, offer information, and perform various functions for users, typically in a conversational manner through text or speech interactions. Virtual assistants use natural language processing, machine learning, and other advanced algorithms to understand user queries, generate responses, and execute commands based on predefined capabilities and contextual understanding (Abdeldayem & Aldulaimi, 2020). They are integrated into various platforms, devices, and applications to streamline user interactions and enhance productivity, performing tasks such as setting reminders, managing schedules, answering questions, and facilitating transactions (Hr-on, 2021). As virtual assistants become more sophisticated and adaptive, they offer increasingly personalised and intelligent interactions, anticipating user needs and adapting responses to provide more accurate, timely and efficient support, thereby contributing to increased efficiency, productivity and engagement in professional settings (Esch, Black, & Ferolie, 2021).

Employee Loyalty

Employee loyalty is a multifaceted concept that encompasses the emotional, psychological, and behavioural commitment that employees demonstrate towards their employer, reflecting a strong sense of allegiance, dedication, and unwavering support in their relationship with the organisation (Barney & Wright, 2021). At the heart of employee loyalty lies a deep-rooted sense of belonging, trust, and alignment between the employee's personal values and the organisation's vision, mission and culture; loyal employees feel a strong emotional attachment to their employer, viewing the organisation as an integral part of their personal and professional identity (Albert, 2022). The development of employee loyalty is shaped by factors such as the quality of leadership, opportunities for growth, compensation and benefits, work-life balance, and the level of support and recognition received from colleagues and supervisors (Guenole & Feinzig, 2022). Loyalty manifests through commitment, advocacy for the organisation, resilience in the face of challenges, organisational citizenship behaviours, and reduced turnover, all of which contribute to an organisation's overall performance and competitive advantage (Krapivin, 2024).

AI Interview Analytics

AI interview analytics are transforming the selection process in higher education by providing a systematic and data-driven approach to evaluating candidates. Traditionally, interviews have been a critical component of selection, allowing institutions to assess applicants' interpersonal skills, motivation, and fit for the organisational environment; however, manual evaluation of interviews can be time-consuming and subjective, often leading to inconsistencies and biases in decision-making (Interviewer.ai, 2024). AI-powered interview analytics leverage natural language processing and machine learning to analyse candidate responses, non-verbal cues, and emotional sentiments during interviews, streamlining the evaluation process while enhancing objectivity through standardised, predetermined assessment criteria (The PIE News, 2024). By minimising the human biases associated with traditional interviewing, AI interview analytics promote a fairer selection process that focuses on candidates' qualifications and demonstrated abilities, while also providing valuable insights that highlight critical moments in interviews and key themes in candidate responses (Fluidogroup, 2024).

Selection Quality

Selection quality refers to the effectiveness and fairness of the processes used to evaluate and choose candidates for admission or employment. Traditional selection methods often rely on subjective assessments, which can lead to inconsistencies and biases that undermine the integrity of the selection process (Kumar & Singh, 2023). AI-powered tools, in contrast, enhance selection quality by providing data-driven insights and objective evaluations; AI algorithms can analyse vast amounts of applicant data, including academic records and interview performance, to identify candidates who best meet an institution's criteria, thereby reducing human error and bias and promoting a more equitable selection environment (Al-Zahrani, 2024). AI's role in improving selection quality also extends to predictive analytics and real-time feedback, as machine learning models can analyse historical data to identify patterns associated with successful candidates, allowing institutions to refine their selection criteria continually (Hassan, Alabi, & Olatunji, 2022). Additionally, AI interview analytics provide valuable insights into candidate responses by analysing verbal and non-verbal cues, enhancing decision-making by allowing selection panels to make informed choices based on objective data rather than subjective impressions (Ogunyemi, Alabi, & Olatunji, 2024).

Theoretical Framework

Attraction-Selection-Attrition (ASA) Theory

This study is anchored on the Attraction-Selection-Attrition (ASA) framework propounded by Schneider (1987) and updated by Schneider, Goldstein and Smith (1995). The ASA model proposes that an organisation is, in effect, shaped by the kinds of people it attracts, selects, and retains: individuals are drawn to institutions whose values and characteristics resemble their own (Attraction); institutions, in turn, select individuals whose attributes fit organisational requirements and culture (Selection); and, over time, individuals who do not fit the organisation's culture are more likely to leave, whether voluntarily or otherwise (Attrition).

The ASA framework is directly relevant to this study. The Attrition stage of the theory is most clearly implicated by the relationship between Virtual Assistant and Employee Loyalty: the theory posits that people are more likely to remain in environments that fit and support them, and virtual assistants, by alleviating the burden of routine administrative tasks and providing instant access to information, enhance the person-organisation fit that keeps employees loyal and reduces the likelihood of attrition. The Selection stage, on the other hand, is reflected in the relationship between AI interview analytics and Selection Quality; by providing standardised, data-driven insight into candidate performance during interviews, AI interview analytics strengthen an institution's capacity to select individuals who genuinely fit its culture and requirements, thereby improving the overall quality of the selection outcome. Taken together, the ASA theory offers a coherent lens for understanding how AI-driven support and evaluation tools shape both who is selected and how committed those who are selected, and those who work alongside them, ultimately become to the institution.

Empirical Review

Hui, Khan and Akhtar (2024) investigated AI-based virtual assistants and transformational leadership from a social cognitive theory perspective, in a study of team innovation in the construction industry in China. Using a simple random sample of 407 respondents, the study found that AI-based virtual assistants significantly moderated the direct and indirect association between transformational leadership and knowledge sharing, and subsequently team innovation, indicating that virtual assistants can strengthen the quality of workplace relationships and engagement.

Mirbabaie, Stieglitz, Brünker, Hofeditz, Ross and Frick (2021) examined collaboration with virtual assistants, focusing on the role of social identity and the extended self. It was found that employees who identify virtual assistants as part of their extended self are more likely to identify with their team, a finding that speaks directly to the potential of virtual assistants to enhance a sense of belonging and, by extension, loyalty.

Stieglitz, Mirbabaie, Möllmann and Rzyski (2022) analysed collaboration with virtual assistants in organisations, focusing on social loafing tendencies and responsibility attribution. The study found that collaborative technologies such as virtual assistants support employees in work-related tasks, which can reduce social loafing and increase engagement, reinforcing the value of virtual assistants as a tool for sustaining positive employee behaviour.

Cachón-Rodríguez, Blanco-González, Prado-Román and Del-Castillo-Feito (2022) examined how sustainable human resource management helps in the evaluation and planning of employee loyalty and retention, finding that social sustainability actions and organisational support mechanisms significantly influence employee loyalty and retention, supporting the view that technological support systems, including virtual assistants, play a vital role in staff retention.

Avery, Leibbrandt and Vecci (2024) examined whether artificial intelligence helps or hurts gender diversity in recruitment in the technology sector, using two field experiments. It was found that providing evaluators with AI scores closes the gender gap in assessments that would otherwise disadvantage certain applicants, improving the overall quality of assessment decisions.

Ore and Sposato (2022) examined the opportunities and risks of artificial intelligence in recruitment and selection, concluding that AI facilitates the effective performance of routine evaluative tasks and improves recruitment strategies, leading to better selection outcomes, while also cautioning that such tools must be implemented with appropriate human oversight.

Acikgoz, Davison, Compagnone and Laske (2020) discussed justice perceptions of artificial intelligence in selection, finding that AI in selection can influence candidates' justice perceptions, and that when implemented correctly, it enhances the perceived quality and fairness of the selection process.

Hemalatha, Kumari, Nawaz and Gajenderan (2021) researched the impact of artificial intelligence on recruitment and selection of information technology companies in India, finding that AI capabilities such as machine vision and automation significantly increase accuracy and remove bias, a finding directly relevant to how AI interview analytics contribute to higher selection quality.

In the Nigerian context, Okafor, Okeke and Williams (2026) found that talent acquisition practices significantly enhanced the innovative business success of outsourcing firms in Delta State, Nigeria, while Ajieh, Okeke and Williams (2026) found that employee expertise capital significantly influenced the innovativeness of private hospitals in Delta State, Nigeria. Both studies reinforce that the rigour and objectivity of the systems institutions use to evaluate talent, whether at the point of acquisition or in ongoing performance, are strongly associated with the quality of organisational outcomes. Williams and Anyim (2021) similarly examined intellectual capital and performance in organisations, noting that verified, high-quality human capital constitutes a critical organisational asset, a position consistent with the expectation that AI interview analytics, by improving the objectivity of candidate evaluation, enhance the quality of the human capital ultimately selected.

On the employee loyalty side of the Nigerian literature, Williams, Emeka-Obiajunwa and Osuagwu (2025) found that retirement benefits significantly enhanced employee commitment in Awka South Local Government Area, Anambra State, Nigeria, while Remigius, Gbenga and Ngige (2025) found that compensation strategies significantly influenced the performance of commercial banks in Anambra State, Nigeria. Abayol, Gbenga and Mbah (2025) found that organisational support for work-life harmony significantly predicted employee career advancement in quick service restaurants in South-East Nigeria, and Maduagwuna and Gbenga (2025) found that workplace diversity significantly influenced employee satisfaction in hospitality businesses in Anambra State, Nigeria. Collectively, these studies reinforce that organisational support systems, whether financial, structural, or technological, such as virtual assistants, are consistently associated with stronger employee loyalty and commitment across Nigerian organisations.

METHODOLOGY

This study adopted a survey research design, which enabled the systematic collection of first-hand data directly from respondents and was appropriate for establishing the relationship between artificial

intelligence and selection outcome. Survey research design is a methodological approach used to collect data by asking individuals a series of questions, typically through structured questionnaires, and it facilitates quantitative analysis and comparison of responses across a relatively large population within a short period (Albert, 2022).

The study was conducted in the South-South geopolitical zone of Nigeria, covering the University of Port-Harcourt, Rivers State; the University of Uyo, Akwa Ibom State; the University of Benin, Edo State; and the University of Calabar, Cross River State. The population of the study comprised 28,125 senior academic and senior non-academic staff drawn from the four universities. Taro Yamane's (1996) formula was used to determine the sample size at a 5% margin of error, yielding a sample size of 394 respondents, while Bowley's proportional allocation method was applied to distribute the questionnaire proportionately across the four institutions based on their staff strength.

A structured, five-point Likert-scale questionnaire, ranging from Strongly Agree (5) to Strongly Disagree (1), was used as the instrument for data collection, divided into a section on respondents' personal data and a section addressing the study's research questions. The validity of the instrument was established through face and content validity, with the draft questionnaire reviewed by experts in the Department of Business Administration, Chukwuemeka Odumegwu Ojukwu University, to ensure its clarity and appropriateness for the study's objectives. The reliability of the instrument was established using Cronbach's Alpha Coefficient with the aid of the Statistical Package for Social Sciences (SPSS version 27), yielding coefficients above the 0.70 benchmark for all constructs relevant to this study, as presented in Table 1.

Table 1: Reliability Analysis for Study Constructs

Construct	Cronbach Alpha	No. of Items	Composite Reliability
Virtual Assistant	0.902	30	0.949
AI Interview Analytics	0.948	30	0.926
Employee Loyalty	0.944	30	0.702
Selection Quality	0.924	30	0.776

Source: SPSS Version 27 (2026).

Primary data were collected using the structured questionnaire, administered directly to respondents, while secondary data were sourced from journals, textbooks and internet materials relevant to the subject matter. Data collected were coded and analysed using SPSS version 27. Descriptive statistics, including frequencies, percentages, mean scores and standard deviations, were used to summarise demographic information and responses to the research questions, while the Pearson Product Moment Correlation Coefficient (PPMC) was used to test the study hypotheses at a 0.05 level of significance. Out of 394 copies of the questionnaire administered, 348 copies, representing 88.3%, were correctly completed and valid for analysis, while the remainder were discarded owing to incomplete or inconsistent responses. The decision rule adopted was to reject the null hypothesis where the calculated p-value is less than 0.05, and to accept the null hypothesis otherwise.

RESULTS AND DISCUSSION

Demographic Characteristics of Respondents

The demographic analysis of the 348 valid respondents revealed that 52.6% are male while 47.4% are female, indicating a relatively balanced gender representation among senior staff in the sampled federal universities. In terms of age, the majority of respondents (48.0%) fell within the 47-57 years bracket, followed by those aged 36-46 years (27.0%), those aged 58 years and above (19.0%), and those aged 25-35 years (6.0%), reflecting a mature and experienced workforce. Regarding marital status, 79.0% of respondents were married while 21.0% were single. On educational qualification, PhD holders constituted

the majority at 56.0%, followed by M.Sc./MBA holders at 41.7% and B.Sc./HND holders at 2.3%. Finally, on work experience, 62.7% of respondents had 10 years and above of service, 25.3% had 7-9 years, 8.3% had 4-6 years, and 3.7% had 1-3 years, confirming the seniority and experience of the sampled population.

Hypothesis one: Virtual Assistant and Employee Loyalty

Ho_1: There is no significant relationship between Virtual Assistant and Employee Loyalty in federal universities, South-South, Nigeria.

Descriptive analysis showed that respondents generally found virtual assistants helpful, with a grand mean of 3.51 recorded across items measuring Virtual Assistant and Employee Loyalty, although specific items relating to job security satisfaction and organisational advocacy recorded the strongest agreement, while an item on extra-role behaviour was rejected.

Table 2: Pearson Correlation between Virtual Assistant and Employee Loyalty

	Virtual Assistant	**Employee Loyalty**
Virtual Assistant	1	0.521**
Sig. (2-tailed)		.000
N	348	348
Employee Loyalty	0.521**	1
Sig. (2-tailed)	.000	
N	348	348

*Source: SPSS Output, 2026. **Correlation is significant at the 0.01 level (2-tailed).*

Table 2 shows a Pearson correlation coefficient (r) of 0.521, indicating a moderate positive and statistically significant relationship between Virtual Assistant and Employee Loyalty ($p = 0.000 < 0.05$). This implies that the presence of AI-driven support systems contributes to a sense of organisational support that fosters loyalty among staff, even though the relationship is comparatively more moderate than those found among the other AI constructs examined in the broader study. Accordingly, the null hypothesis (Ho4) is rejected. A plausible explanation is that virtual assistants alleviate the burden of routine administrative tasks and provide instant access to information, thereby improving the work experience and allowing staff to focus on more meaningful responsibilities. This finding is consistent with Hui, Khan and Akhtar (2024), who found that AI-based virtual assistants significantly moderated the relationship between leadership and team innovation, fostering a more conducive work environment. It also aligns with Mirbabaie, Stieglitz, Brünker, Hofeditz, Ross and Frick (2021), who found that employees who identify virtual assistants as part of their extended self are more likely to identify with their team, and with Stieglitz, Mirbabaie, Möllmann and Rzyski (2022), who found that collaborative technologies such as virtual assistants reduce social loafing and increase engagement. The finding is further reinforced by Cachón-Rodríguez, Blanco-González, Prado-Román and Del-Castillo-Feito (2022), who found that social sustainability actions and organisational support mechanisms significantly influence employee loyalty and retention, and by the Nigerian evidence of Williams, Emeka-Obiajunwa and Osuagwu (2025), who found that retirement benefits significantly enhanced employee commitment in Awka South Local Government Area, Anambra State, Nigeria, and Remigius, Gbenga and Ngige (2025), who found that compensation strategies significantly influenced the performance of commercial banks in Anambra State, Nigeria, both of which affirm that dependable institutional support systems, whether financial or technological, sustain employee loyalty over time.

Hypothesis Two: AI Interview Analytics and Selection Quality

Ho5: There is no significant relationship between AI interview analytics and Selection Quality in federal universities, South-South, Nigeria.

Descriptive analysis showed that respondents strongly agreed on the positive impact of AI interview analytics on selection quality, with a grand mean of 3.85 recorded across the relevant items, the highest grand mean among the constructs examined in this article, reflecting strong overall consensus.

Table 3: Pearson Correlation between AI Interview Analytics and Selection Quality

	AI Interview Analytics	Selection Quality
AI Interview Analytics	1	0.714**
Sig. (2-tailed)		.000
N	348	348
Selection Quality	0.714**	1
Sig. (2-tailed)	.000	
N	348	348

*Source: SPSS Output, 2026. **Correlation is significant at the 0.01 level (2-tailed).*

Table 3 demonstrates a very strong positive correlation (r = 0.714) between AI interview analytics and Selection Quality. Since the p-value (0.000) is less than the alpha level of 0.05, the null hypothesis (Ho5) is rejected, confirming that the application of AI analytics in interviews has a substantial and statistically significant relationship with the quality of selection outcomes. A likely reason for this strong relationship is that AI analytics provide a layer of depth that human interviewers might miss, such as consistent scoring based on behavioural indicators and the removal of the halo effect or affinity bias that often distort panel-based judgment. This finding agrees with Avery, Leibbrandt and Vecci (2024), who found that providing evaluators with AI scores closes gaps in assessment that would otherwise disadvantage certain applicants, improving the overall quality of decisions. It is further supported by Ore and Sposato (2022), who concluded that AI facilitates the effective performance of routine evaluative tasks and improves recruitment strategies, and by Acikgoz, Davison, Compagnone and Laske (2020), who found that AI in selection can positively influence justice perceptions when implemented correctly, thereby enhancing the perceived quality and fairness of the process. It is also consistent with Hemalatha, Kumari, Nawaz and Gajenderan (2021), who found that AI capabilities such as machine vision and automation significantly increase accuracy and remove bias. In the Nigerian context, this finding is reinforced by Okafor, Okeke and Williams (2026), who found that talent acquisition practices significantly enhanced the innovative business success of outsourcing firms in Delta State, Nigeria; by Ajieh, Okeke and Williams (2026), who found that employee expertise capital significantly influenced the innovativeness of private hospitals in Delta State, Nigeria; and by Williams and Anyim (2021), who identified verified human and intellectual capital as a critical organisational asset. Collectively, these studies affirm that the objectivity AI interview analytics bring to candidate evaluation translates into a demonstrably higher quality of selection outcome.

CONCLUSION

The integration of artificial intelligence into the staff support and interview evaluation systems of federal universities in South-South Nigeria represents a meaningful step toward stronger employee loyalty and higher-quality selection outcomes. The empirical evidence generated from this study demonstrates that Virtual Assistant bears a moderate but statistically significant relationship with Employee Loyalty, while AI interview analytics bears a very strong and statistically significant relationship with Selection Quality. These findings confirm that when institutions deploy AI-driven administrative support, staff experience a stronger sense of being supported, which translates into loyalty, while the deployment of AI-powered

interview evaluation tools substantially strengthens the objectivity and, consequently, the quality of selection decisions. As Williams and Okeke (2025) found in relation to the economic factors of corporate sustainability, institutions that invest deliberately in the systems underpinning their core processes are better positioned for long-term performance; the same logic applies to federal universities, for whom continued investment in virtual assistant technologies and AI interview analytics is essential to sustaining a loyal workforce and a consistently high-quality selection process.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proposed:

1. University administrators should invest in virtual assistant technologies to handle routine inquiries and administrative support, which will alleviate staff workload and, in turn, boost employee loyalty.
2. Recruitment panels should utilise AI interview analytics as a standard support tool during interview sessions to provide objective data on candidate performance and mitigate unconscious affinity bias, thereby strengthening Selection Quality.
3. University management should periodically review staff feedback on virtual assistant platforms to address technical challenges and gaps in functionality, particularly around providing clear information on job roles and responsibilities, an area this study found to require improvement.
4. Federal universities should institute regular training for interview panel members on interpreting and applying AI interview analytics insights, to ensure that human judgment and AI-generated data complement rather than conflict with one another during selection decisions.

REFERENCES

Abayol, P. I., Gbenga, W., & Mbah, S. I. (2025). Work-life harmony and employee career advancement in quick service restaurants, South East, Nigeria. Journal of Emerging Trends in Management Sciences and Entrepreneurship, 7(2).

Abdeldayem, M. M., & Aldulaimi, S. H. (2020). Trends and opportunities of artificial intelligence in human resource management: Aspirations for public sector in Bahrain. International Journal of Scientific and Technology Research, 9(1), 3867-3871.

Acikgoz, Y., Davison, K. H., Compagnone, M., & Laske, M. (2020). Justice perceptions of artificial intelligence in selection. International Journal of Selection and Assessment, 28(4), 399-416.

Ajieh, I. K., Okeke, C. O., & Williams, G. (2026). Employee expertise capital and innovativeness of private hospitals in Delta State, Nigeria. Journal of Emerging Trends in Management Sciences and Entrepreneurship, 8(2).

Al-Zahrani, A. (2024). Exploring the impact of artificial intelligence on higher education. Sustainability, 16(14), 6118. https://doi.org/10.3390/su16146118

Albert, E. T. (2022). AI in talent acquisition: A review of AI-applications used in recruitment and selection. Strategic Human Resource Review, 18, 215-221.

Avery, M., Leibbrandt, A., & Vecci, J. (2024). Does artificial intelligence help or hurt gender diversity? Evidence from two field experiments on recruitment in tech.

Barney, J. B., & Wright, P. M. (2021). On becoming a strategic partner: The role of human resources in gaining competitive knowledge. Human Resource Management, 37(1), 31-46.

Cachón-Rodríguez, G., Blanco-González, A., Prado-Román, C., & Del-Castillo-Feito, C. (2022). How sustainable human resources management helps in the evaluation and planning of employee loyalty and retention: Can social capital make a difference? Evaluation and Program Planning, 95, 102171.

DreamApply. (2024). How can universities combat AI challenges? Use DreamApply's video interview feature. https://www.dreamapply.com/edtech/how-can-universities-combat-ai-challenges-use-dreamapplys-video-interview-feature

Esch, P. V., Black, J. S., & Ferolie, J. (2021). Marketing AI recruitment: The next phase in job application and selection. Computers in Human Behavior, 90, 215-222.

Fluidogroup. (2024). AI in higher education: Offer personalised admissions guidance through Agentforce. https://www.fluidogroup.com/blog/ai-in-higher-education-offer-personalised-admissions-guidance-through-agentforce/

Guenole, N., & Feinzig, S. (2022). The business case for AI in HR: With insights and tips on getting started. IBM Smarter Workforce Institute, IBM Corporation.

Hassan, S., Alabi, O., & Olatunji, S. (2022). The impact of artificial intelligence on interview processes: A systematic review. Journal of Management Studies, 29(4), 99-115.

Hemalatha, A., Kumari, P. B., Nawaz, N., & Gajenderan, V. (2021, March). Impact of artificial intelligence on recruitment and selection of information technology companies. In 2021 International Conference on Artificial Intelligence and Smart Systems (ICAIS) (pp. 60-66). IEEE.

Hr-on. (2021). The future of recruitment and job searches lies with artificial intelligence and machine learning. https://hr-on.com/google-plans-to-use-ai-to-conquer-the-job-market

Hui, Z., Khan, N. A., & Akhtar, M. (2024). AI-based virtual assistant and transformational leadership in social cognitive theory perspective: A study of team innovation in construction industry. International Journal of Managing Projects in Business.

Interviewer.ai. (2024). AI interviews: A game-changer for universities in the admissions process. https://interviewer.ai/ai-interviews-a-game-changer-for-universities/

Johansson, J., & Herranen, S. (2020). The application of artificial intelligence (AI) in human resource management: Current state of AI and its impact on the traditional recruitment process. Jonkoping University.

Krapivin, P. (2024). How Google is using AI to power internal talent deployment. Forbes. https://www.forbes.com/sites/pavelkrapivin/2024/05/05/how-google-is-using-ai-to-power-internal-talent-deployment

Kumar, R., & Singh, P. (2023). Assessing fairness in AI-powered recruitment: Challenges and opportunities for educational institutions. Journal of Artificial Intelligence Research, 18(1), 23-39.

Maduagwuna, I. A., & Gbenga, W. (2025). Work-place diversity and employee satisfaction in hospitality businesses in Anambra State, Nigeria. International Journal of Finance, Accounting and Management Studies, 1(8).

Mirbabaie, M., Stieglitz, S., Brünker, F., Hofeditz, L., Ross, B., & Frick, N. R. (2021). Understanding collaboration with virtual assistants - the role of social identity and the extended self. Business and Information Systems Engineering, 63, 21-37.

Nawaz, N., Arunachalam, H., Pathi, B. K., & Gajenderan, V. (2024). The adoption of artificial intelligence in human resources management practices. International Journal of Information Management Data Insights, 4(1), 100208.

Ogunyemi, M., Alabi, O., & Olatunji, S. (2024). The impact of artificial intelligence on interview processes: A systematic review. Journal of Management Studies, 29(4), 99-115.

Okafor, A. E., Okeke, C. O., & Williams, G. (2026). Talent acquisition practices and innovative business success of outsourcing firms in Delta State, Nigeria. Journal of Emerging Trends in Management Sciences and Entrepreneurship, 8(2).

Ore, O., & Sposato, M. (2022). Opportunities and risks of artificial intelligence in recruitment and selection. International Journal of Organizational Analysis, 30(6), 1771-1782.

Remigius, C. U., Gbenga, W., & Ngige, C. D. (2025). Compensation strategies and performance of commercial banks in Anambra State, Nigeria. Journal of Emerging Trends in Management Sciences and Entrepreneurship, 7(1).

Rogers, E. M. (2021). Diffusion of innovations (1st ed.). Free Press of Glencoe.

Schneider, B. (1987). The people make the place. Personnel Psychology, 40(3), 437-453.

Schneider, B., Goldstein, H. W., & Smith, D. B. (1995). The ASA framework: An update. Personnel Psychology, 48(4), 747-773.

Stieglitz, S., Mirbabaie, M., Möllmann, N. R., & Rzyski, J. (2022). Collaborating with virtual assistants in organizations: Analyzing social loafing tendencies and responsibility attribution. Information Systems Frontiers, 24(3), 745-770.

The PIE News. (2024). Harnessing AI in admissions: The future of standardised interviews. https://thepienews.com/harnessing-ai-in-admissions-the-future-of-standardised-interviews/

Williams, G., & Anyim, K. J. (2021). Intellectual capital and performance in organizations: An exploration of issues. International Journal of Management and Entrepreneurship, 3(1), 126-145.

Williams, G., & Okeke, C. O. (2025). Economic factors of corporate sustainability and performance of foam manufacturing firms. British Journal of Marketing Studies, 13(3).

Williams, G., Emeka-Obiajunwa, P.-A., & Osuagwu, B. O. (2025). Retirement benefits and employee commitment in Awka South Local Government Area, Anambra State, Nigeria. International Journal of Research and Innovation in Social Science (IJRISS). https://doi.org/10.47772/IJRISS.2025.909000629