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The Impact of Artificial Intelligence Adoption on Unethical Recruitment and Selection Practices in the South African Public Sector

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Abstract

The purpose of this study was to explore the relationship between the level of unethical practices in the recruitment and selection process in the public sector and the level of AI use. To attain this objective hypothesis were developed and analysed. The quantitative approach to research was adopted and the Chi square test of independence was used to test the null hypothesis that: the relationship between the level of unethical practices in the recruitment and selection process in the public sector and the level of AI use is not statistically significant at a=0.05. Seventy-three (73) participants completed a questionnaire to collect data. The analysis that was performed in this study did not find evidence to reject the null hypothesis. Consequently, it was concluded that the adoption of AI does not relate to improved ethical behaviours. The implication of this is that AI also has ethical issues. Essentially, the adoption of AI in the recruitment and selection process may not directly lead to reduction of unethical practices. The study recommends further research to explore how AI can be used or designed to promote ethical recruitment and selection. This recommendation takes note that use of AI remains vital despite any challenges that it may provide.

Keywords: *Artificial intelligence, ethics, HRM, public sector, service delivery*

Introduction

Satisfaction with public service delivery has been of concern in post-apartheid South Africa. Unethical practices in various public sector functions such as procurement, financial management as well as human resource functions have been witnessed (Poisat, Cullen & Calitz, 2024). The present study focuses on unethical practices in the recruitment and selection function. Particular focus is on the ethical implications of AI in the recruitment function.

The use of artificial intelligence (AI) has grown over the years across countries and industries. There are indications that AI can have a positive impact on various elements of productive performance (Poisat et al., 2024). However, there are fears on its use especially those related to ethics (Hagendorff, 2020). The reality of AI in practice is that some people have found it useful and support its increased use while in some cases counter arguments have emerged to the effect that organisations need to be cautions in their adoption of AI (Ormond, 2020). This study explores the ethical dimensions related to AI adoption and how these can impact on the rate of AI adoption in the public sector. Delivery key societal needs, either in private business enterprises or in the public sector can be taken as a humane activity and the use of AI need more exploration (Taslim, Rosnani & Fauzan, 2025). The purpose of this study is to enquire on the impact of AI in the South African public sector given its unique circumstances and ethical challenges. Shava and Mazenda (2021) highlighted that the failure to uphold fundamental ethics among public officials and politicians is a global challenge. In South Africa, corruption, abuse of authority and various forms of maladministration have tarnished public sector performance (Yende, 2023). Revelations as that of the Zondo and Mokgoro commissions have revealed significant challenges such as corruption and fraud in the South African public service making it crucial to consider ways of addressing it (Shava & Mazenda, 2021). This study considers the South African public service operational environment as dynamic making it necessary for continuous research to keep informed and to detect any changes from previous results (Gaffley, Adams & Shyllon, 2022). This is especially vital in the unprecedented changes with a high rate of technological change.

AI uses computers and technological systems to do tasks that are performed by people. Now, machines can act as if they are people but they can never be people, they will continue to lack the human element

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and the ethical element comes into question. Humans adhere to certain ethical features that make it necessary to explore how AI relates to the ethical expectations. Anderson and Anderson (2020) commented that there are ethical implications of having AI perform human roles. These implications require research to inform practices. The South African public sector seeks to serve the public with important basic needs of societal welfare. In this way, use of AI to serve key public necessities calls for ethical considerations to ensure responsible and correct service delivery. This study is informed from the need to explore the ethical dimensions to AI adoption in the South African public sector and its unique circumstances and how these can impact on the rate of AI adoption in the public sector. The South African contexts of enquiry is vital when considering that research on AI in the African context is still limited (Gaffley et al., 2022; Oosthuizen, 2024).

Anderson and Anderson (2020) inform that despite the ethical dimensions to AI adoption, AI remains important as it can perform some functions that may not be appropriately performed by humans or that are dangerous or people as well as those where machines can do much better.

AI and the Public Service

In the view of Haenlein and Kaplan (2019), AI is described as a system that has the ability to handle and interpret data from external sources adequately, learn from the data and to realise certain goals through adaptable flexibility. In the public sector AI has the capacity to collect and analyse data and to make models as well as for good data interpretation. These key tasks may enhance better public service delivery. South Africa, in this way has the capacity to exceed human performance . South Africa's public sector ethical conduct is informed from the Constitution of South Africa of 1996, the Public Service Act 103 of 1994 as well as the Public Service Regulations of 1999. The case of ethics in the public sector is a paradox whereby the use of AI is expected to address unethical practices by public sector leaders such as corruption, however, the more AI is deployed, the more issues of AI ethics arise again. This demonstrates the complex nature of ethical issues thereby justifying the need for increased ethical research. Despite these arguments, Motadi (2024) reveals that the need for AI to aid public administration in South Africa is significant given the impact of fraud, bad government as well as poor administration in South Africa. Previous research on AI indicates the capacity of AI adoption in the South African public sector to be relevant in improving public service delivery (Motadi, 2024). AI can reduce paperwork, it can predict future trends in important public phenomena, can enhance productivity, improve decision making, aid public participation and can optimise the allocation of resources (Motadi, 2022). This study will explore the major dimensions of ethics that are associated with the use of AI and how these dimensions affect the use of AI in the South African public service.

AI and the Recruitment and Selection Process

The recruitment and selection process is a key function of HRM activities in organization. It is a function that is involved with the effective identification of talent for key organizational functions and involves placement of talent as well as employee promotion roles (Budhwar et al., 2022). Poor conduct of the HRM function has negative effects on the competitive of an entity. Poisat (2024) provides that in the public sector, the recruitment and selection process has an impact in service delivery. A public entity may benefit from having the right talent for various roles and function since this may translate to convincing public service delivery. In recent years, AI in the recruitment and selection process has changed the traditional function. This has been associated with AI being used for talent search activities and employee selection processes. With online applications being used, AI has been vital to organize data and explore the application to analyse and identify the most suitable applicant (Budhwar et al., 2022; Poisat et al., 2024). The interview process as well especially if it include the analysis of personalities may also include the use of AI. While there can be many advantages to this including the elimination of bias, nepotic behaviours as well as improvement of the entire process, concerns have been raised of the ethical dimensions of such process (Chilunjika et al., 2022). AI may lack the human nature that may be relevant in the conduct necessary when dealing with people. As a result, it has becoming essential to explore how the ethical dimension of employee recruitment and selection process. This is especially important in the public sector given its essence as a key

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employer in many developing countries such as South Africa. In view of these arguments, the specific objectives that guided this study are provided in the next section.

The objective and hypothesis of the study

Initially, the use of technological systems emerged from the realisation that it could be a strategy for continued business activities during the Covid-19 global pandemic. This was despite that technological use has been increasing in stages in the form of revolutions. The pandemic caused private and public sector organisations to strengthen their technological use. At that time the benefits of technological systems were recognized as ways to to ensure continued operations during the pandemic. As Covid-19 infections started to drop, there was continued use of technological systems and the realisation that these systems have broad benefits increased. Systems such as artificial AI started being widely exploited after the Covid-19 pandemic. AI is part of a package of various other technological systems that include robotics, internet of things and other web computing programs. The benefits of these systems are broad and both private and public systems can benefit. This study explores the adoption of AI for HRM in the public sector given the prevalence of malpractices such as corruption, bribery and nepotism which are unethical in nature. In the end these unethical practices hinder the effective deliverance of public services.

The study was based on the research question: Is there a statistically significant relationship between the level of unethical practices in the recruitment and selection process and the level of AI use in the public sector. Associated with this objective were the following hypothesis:

H_0: The relationship between the level of unethical practices in the recruitment and selection process in the public sector and the level of AI use is not statistically significant.

H_1: The relationship between the level of unethical practices in the recruitment and selection process in the public sector and the level of AI use is not statistically significant.

The hypothesis outlined were explored following the methodology that is outlined in the next section.

Methodology

The study sort to explore AI use as an independent variable and level of unethical practices in the recruitment and selection process as a dependent variable. The study conceptualized the real impact of AI in the recruitment and selection process in the South African public sector as a phenomenon that is objective and can be explored from the philosophy of positivism. This philosophy adheres to the argument that reality exist independently and can be explored using quantitative or numerical techniques. The Chi square test of independence was performed to analyse the relationship between AI use and level of unethical practice in the recruitment and selection process in the public sector. The population of the study were employees employed in the public service across departments in the past three (3) years. The actual population size could not be established in the past. The study expected to follow n=N sampling procedure whereby all of them could participate in the study. However, 73 participants completed the online questionnaire which was put on google the link of which was send out to various government departments for completion. The job categories of the respondents were as follows.

Table 1: Job categories of respondents

Category of study participant	Number of participants	Percentage frequency
Office employee	8	11%
Public relations officer	20	27%
Administration personnel	20	27%
Managers	3	4%
Finance persons	12	16%
Service delivery personnel	10	14%
Total	73	100%

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As provided in Table 1, the respondents were from various job categories. In this study the job categories were not an essential variable of analysis, what was essential was simply to have a diverse group and consider with they were recruited using AI reliant techniques or there was more use of manual paper-based and traditional human-based systems. The years of recruitment of the respondents were as in Table 2

Table 2: Years when participants were recruited

Year of recruitment	Number of participants	Percentage frquency
2025	8	11%
2024	32	44%
2023	33	45%
Total	73	100%

The participants were required to be those who were recruited in these most recent three years given that AI use has significantly in recent years and there was expectation that these most recent years could have witnessed more increased use of AI. The age distribution of the participants was as provided in Table 3

Table 3: Age distribution of participants

Age range	Number of participants	Percentage frequency
Less than 20	4	5%
20-30 years	26	36%
30-40	33	45%
Above 40	10	14%
		100%

A majority (45%) of the respondents were within the 30 to 40 years age group. While the least (5%) were less than 20 years and 36% of the participants were in the 20-30 years age category. 14% of the participants were above 40. These indications show that the participants could have switched professions or most of them were already employed and were selected for promotions. The racial categories of the study participants were as provided in Table 4

Table 4: Racial categories of respondents

Racial category	Number of participants	Percentage frequency
Back Africans	42	58%
Indians	22	30%
Coloureds	8	11%
Whites	1	1%
		100%

The racial categories indicated that most (58%) of the respondents were Black Africans and this support that the South African population is mainly composed of black Africans. Indians were 30% of the recruited while 11% were coloureds and just 1% were whites. All the racial categories were present in the study participants.

Results and Discussion

The study tested the hypothesis:

H_0: The relationship between the level of unethical practices in the recruitment and selection process in the public sector and the level of AI use is not statistically significant at $\alpha=0.05$

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H_1: The relationship between the level of unethical practices in the recruitment and selection process in the public sector and the level of AI use is statistically significant at α=0.05

The Chi square test of independence was adopted to establish whether there is a relationship between the level of AI use and the level of unethical practices in the recruitment and selection process. The results of the questionnaire that was completed by the participants was loaded on the Statistics package for the Social Sciences (SPSS) and the results were analyside. Table 5 shows the cross tabulation output from SPSS. It is is clear that the observed values were different from the expected and it was necessary to consider the significance of this difference between the observed and expected values.

Table 5: Chi square cross tabulation for level of unethical practices and level of AI use

			Level of AI use				
			Very low	Low	High	Very high	Total
Level of unethical practices	Minimum	Count	1	8	11	2	22
		Expected Count	2.1	6.3	7.5	6.0	22.0
		% within Level of unethical practices	4.5%	36.4%	50.0%	9.1%	100.0%
		% within Level of AI use	14.3%	38.1%	44.0%	10.0%	30.1%
		% of Total	1.4%	11.0%	15.1%	2.7%	30.1%
	Average	Count	3	10	6	11	30
		Expected Count	2.9	8.6	10.3	8.2	30.0
		% within Level of unethical practices	10.0%	33.3%	20.0%	36.7%	100.0%
		% within Level of AI use	42.9%	47.6%	24.0%	55.0%	41.1%
		% of Total	4.1%	13.7%	8.2%	15.1%	41.1%
	Somewhat high	Count	3	2	8	6	19
		Expected Count	1.8	5.5	6.5	5.2	19.0
		% within Level of unethical practices	15.8%	10.5%	42.1%	31.6%	100.0%
		% within Level of AI use	42.9%	9.5%	32.0%	30.0%	26.0%
		% of Total	4.1%	2.7%	11.0%	8.2%	26.0%
	Widespread	Count	0	1	0	1	2
		Expected Count	.2	.6	.7	.5	2.0
		% within Level of unethical practices	0.0%	50.0%	0.0%	50.0%	100.0%
		% within Level of AI use	0.0%	4.8%	0.0%	5.0%	2.7%
		% of Total	0.0%	1.4%	0.0%	1.4%	2.7%
Total		Count	7	21	25	20	73
		Expected Count	7.0	21.0	25.0	20.0	73.0
		% within Level of unethical practices	9.6%	28.8%	34.2%	27.4%	100.0%
		% within Level of AI use	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	9.6%	28.8%	34.2%	27.4%	100.0%

The Pearson Chi square test statistics as provided in Table 6 was 13. 238 (p=0.152). The p value (0.152) was greater that (α=0.05) suggesting that the statistic was significant. This was evidence retain the null hypothesis and conclude that the relationship between the level of unethical practices in the recruitment and selection process in the public sector and the level of AI use is not statistically significant at α=0.05

Table 6: Chi-Square test statistic for the study

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.238[a]	9	.152
Likelihood Ratio	15.614	9	.075
Linear-by-Linear Association	.859	1	.354
N of Valid Cases	73		
a. 7 cells (43.8%) have expected count less than 5. The minimum expected count is .19.			

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The symmetric measures (Phi and Cramer's V) which are provided in Table 7 was then considered to determine the strength of the relationship between level of AI use and level of unethical practices as established in this study.

Symmetric Measures			
		Value	Approximate Significance
Nominal by Nominal	Phi	.426	.152
	Cramer's V	.246	.152
N of Valid Cases		73	

The Cramer's V value of 0.246 and a Phi value of 0.46 suggested a weak to moderate relationship between use of AI and level of unethical practices in the recruitment and selection in the public sector. This led to failure to reject the null hypothesis and it was concluded that the relationship between the level of unethical practices in the recruitment and selection process in the public sector and the level of AI use is not statistically significant at $\alpha=0.05$.

The results of this study do not provide evidence that AI use can lead to improved ethics in the public sector. These results can be taken to support Ormond (2020) who reported that AI has several risks and some of them are unethical given that AI are not humans. AI has been found to have concerns in matters of accountability, bias and transparency (Ormond, 2020). The findings in this study also relate to Pan and Froese's (2022) work where it was provided that AI can have both benefits and challenges for organisations. While AI may help to address such unethical challenges as corruption and inefficiencies or malpractices associated with human behaviour, it also have its own unethical side that has to be taken into consideration hence its adoption may not mean improved ethics in organisations.

Conclusion

The study was developed to explore whether there is a relationship between AI adoption and the level of unethical practices in the selected public sector organisations. This was against the increased adoption of AI with the expectation that it will enhance service delivery and lead to better organisational performance and improved service delivery. The study found evidence to uphold the hypothesis that the relationship between the level of unethical practices in the recruitment and selection process in the public sector and the level of AI use is not statistically significant at $\alpha=0.05$. Consequently adoption of AI was found to result in new forms of ethical considerations which may differ from those associated with humans. The issue of ethics remains a matter that requires consideration in future studies especially with a focus on how best to improve ethical behaviours with AI. This also involves a study of how AI can be designed to meet the ethical needs of the public sector.

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