# ARTIFICIAL INTELLIGENCE INTEGRATION AND EMPLOYEE PRODUCTIVITY IN THE NATIONAL POLICE SERVICE COMMISSION IN NAIROBI, KENYA

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**Abstract**

The rapid advancement of Artificial Intelligence (AI) has transformed operational processes across various sectors, including law enforcement and public administration. AI has the potential to enhance efficiency, streamline workflows, and improve decision-making. However, the extent to which AI integration influences employee productivity remains a critical area of inquiry, particularly in public institutions. This study investigates the impact of AI integration on employee productivity within the National Police Service Commission (NPSC) in Nairobi, Kenya, aiming to establish whether AI-driven tools contribute to workforce efficiency, decision-making, and service delivery while addressing potential challenges related to AI adoption. The study adopts a descriptive research design, utilizing both quantitative and qualitative approaches to analyze AI's influence on employee productivity. The target population comprises 60 employees of the National Police Service Commission (NPSC), with a sample drawn using stratified random sampling. Data collection was performed using a structured questionnaire, and analysis was conducted using descriptive statistics, correlation analysis, and regression models. The study concludes that AI experience has a positive and significant effect on employee productivity in NPSC, Kenya. The study also concludes that skill acquisition has a positive and significant effect on employee productivity in NPSC, Kenya. Based on the findings, the study recommends that the management of National Police Service Commission in Kenya should implement a comprehensive onboarding and continuous training program that leverages employees' existing knowledge and experience. By aligning new job roles with the employees' prior knowledge and providing opportunities for ongoing skill enhancement, NPSC can boost productivity, improve job satisfaction, and increase employee engagement. Further, the study recommends that the management of National Police Service Commission in Kenya should create role-specific frameworks that clarify job expectations and processes. By focusing on developing clear, tailored guidelines and standard operating procedures for various roles within the commission, NPSC can reduce the ambiguity that comes with generalization difficulty

**Keywords:** *AI integration, Experience, Skill Acquisition, Employee Productivity*

## INTRODUCTION

In the world today, traditional approaches to how businesses are run are highly being challenged. There are no longer only local firms as competitors, but organizations have to compete

constantly on a global level as new technology is making the world smaller (Bauer & Erixon, 2020). The integration of AI has steadily increased over the past few years, and this trend is expected to continue in the coming years. With the increasing use of technology in almost all aspects of business, AI has become an essential tool for managing human resources in organizations (Goldfarb & Trefler, 2018)

The computer scientist Nils John Nilsson describes Artificial Intelligence as a technology that "functions appropriately and with foresight in its environment with the ability to perceive, pursue goals, initiate actions and learn from a feedback loop (Nilsson, 2014). Venkatesh et al. (2024) define artificial intelligence integration as the strategic deployment of AI tools and systems within an organization to solve specific problems, streamline processes, and drive innovation. The process typically involves selecting appropriate AI models, training them on relevant data, and integrating them with existing systems to achieve desired outcomes.

Coker (2011) defined employee productivity as the level of employee's performance in relation to attendance, work quality, the capacity of performance and personal factors. According to (Naeem & Ozue, 2021), employee productivity indicates the extent to which the adoption of technology minimizes the time and effort required to complete a specific work. It is the efficiency and effectiveness with which employees perform their work tasks, Taris & Schufeli (2021).

Employee productivity has been a matter of substantial interest to management experts since the beginning of management research during the Industrial Revolution and continues to be so in the twenty-first century, especially in a Covid-19 environment (Mukuni, 2023). The belief is that productivity can influence both employee and organizational performance, as well as an organization's ability to maintain a competitive advantage over other businesses, has sparked a surge of interest in the subject among academics throughout the world (Mukuni, 2023).

The Constitution of Kenya 2010 established the National Police Service Commission (NPSC) under Chapter 15 as one among other Independent Commissions and was conventional under Article 246 of the Constitution of Kenya. Primarily, the establishment of the NPSC was to take over the HR management aspect of the National Police Service amongst many other mandates that were at that point being handled by the Public Service Commission (Kivoi & Mbae, 2022).

The NPSC is composed of various departments and Committees that perform distinct roles and functions that collectively contribute to the overall Commission mandate; Finance Department, Administration, Procurement, Human Capital Management, Accounts, HCM Automation and ICT, and Legal Departments. The departments are each headed by directors who directly report to the Chief Executive Officer. The Human Resource Department stands out to be the core functional department as it addresses key HR concerns of police officers both internally and externally.

With an approximate population of 670 officers of different designations, the Commission oversees the recruitment and appointment of persons to hold or act in office in the NPS, determines promotions and transfers including having the guidelines for the same, determines confirmation in appointments, and exercises disciplinary control over both the civilian and uniformed staff of the National Police Service among other functions (Akech, 2023).

The NPSC is therefore an HR umbrella of the NPS, thus driving its choice and relevance in this study. This study therefore focuses on not only how the Commission is embracing technology and how this has impacted its Human Resource Management role but on how it can inculcate the use of Artificial Intelligence and Technology to improve efficiency and effectiveness.

**Statement of the Problem**

The National Police Service Commission (NPSC) plays a crucial role in ensuring the effectiveness, accountability, and professionalism of the police force in Kenya. As an independent body established under the Constitution of Kenya, the NPSC is responsible for overseeing the recruitment, promotion, and discipline of police officers (Ndung'u, 2023). By ensuring that the police force operates efficiently and upholds human rights, the NPSC contributes significantly to maintaining law and order, preventing crime, and safeguarding the nation's security. This, in turn, fosters public trust and confidence in the police service, which is vital for the overall stability and development of the country (Makena, 2023).

The National Police Service Commission (NPSC) in Kenya faces several challenges that impact employee productivity. These challenges impact the efficiency and effectiveness of the police force in serving the public, and addressing them is critical to enhancing law enforcement standards (Zambrano, 2020). Job satisfaction within the National Police Service in Kenya remains a significant challenge, as police officers frequently express dissatisfaction with various aspects of their work environment. According to a 2020 study by the Kenya National Commission on Human Rights (KNCHR), approximately 60% of police officers in Kenya reported dissatisfaction with their compensation and benefits (Kivoi & Mbae, 2022). This finding highlights the financial strain experienced by officers, given the high-risk nature of their work. A 2023 internal survey by the NPSC revealed that nearly 40% of officers felt undervalued and underappreciated, while an additional 35% expressed frustration over the lack of career progression opportunities (Akech, 2023). Further, the 2022 Kenya Police Service Salary Review Board report noted that while there have been attempts to increase police salaries, they still lag behind those in other sectors with similar levels of responsibility. As a result, many officers leave the force prematurely, which contributes to turnover rates of about 15% annually, according to the NPSC (Ndung'u, 2023).

The quality of work delivered by Kenya's police officers is heavily impacted by systemic challenges such as inadequate resources, lack of proper training, and insufficient support. A 2021 report from the Independent Policing Oversight Authority (IPOA) revealed that over 65% of officers reported lacking access to modern equipment, such as functional vehicles and communication tools, which significantly hampers their ability to perform their duties effectively (Makena, 2023). Moreover, an NPSC assessment in 2022 found that only 42% of officers had received formal training in key areas like human rights, community policing, and counter-terrorism, despite these being critical to contemporary law enforcement (Kivoi & Mbae, 2022). The 2022 National Crime and Security Report indicated that nearly 70% of police officers were managing caseloads far exceeding their capacity, with some officers handling up to 120 cases at once, a situation that compromises the thoroughness and quality of investigations. This overextension is further evidenced by the rising rates of officer fatigue and errors, as highlighted by a 2022 internal survey, where 55% of respondents reported frequent burnout and declining morale (Akech, 2023).

Employee engagement is another area where the National Police Service faces notable difficulties. A 2023 survey by the NPSC indicated that only 45% of police officers felt actively engaged in their roles, compared to over 70% engagement rates in other public service sectors. This lack of engagement stems from factors such as poor leadership, insufficient recognition, and limited professional development opportunities (Ndung'u, 2023). A report by the International Labour Organization (ILO) in 2022 found that 50% of police officers in Kenya felt their work was undervalued by the public and government, contributing to lower levels of emotional

investment in their work. Further, a 2023 study by the Kenya Police Welfare Association (KPWA) revealed that 55% of officers felt disconnected from the organization's leadership, citing a lack of clear communication and recognition of their contributions (Makena, 2023). This disengagement has practical implications, with disengaged officers being less motivated to take initiative, follow through on critical cases, or engage positively with communities. Moreover, as disengagement rates rise, it directly impacts the police force's ability to maintain public trust, as seen in the 2023 Public Confidence in Law Enforcement report, where 30% of respondents indicated a lack of confidence in the police due to poor service delivery (Kivoi & Mbae, 2022).

The integration of Artificial Intelligence (AI) into organizational systems has the potential to significantly influence employee productivity. AI-driven tools can streamline administrative tasks, enhance decision-making processes, and improve data management, allowing employees to focus on more complex and strategic aspects of their work (Zambrano, 2020). Various studies have been conducted in different parts of the world on AI integration and employee productivity. However, none of these studies focused on prior knowledge, AI experience, generalization difficulty and skill acquisition on employee productivity at the National Police Service Commission in Kenya. To fill the highlighted gaps, the current study sought to examine the influence of AI integration (prior knowledge, AI experience, generalization difficulty and skill acquisition) on employee productivity at the National Police Service Commission in Kenya.

## General Objective
The general objective of this study is to examine the influence of AI integration on employee productivity at the National Police Service Commission in Kenya

## Specific Objectives
i. To establish the influence of experience on employee productivity in NPSC, Kenya
ii. To determine the influence of skill acquisition on employee productivity in NPSC, Kenya

## LITERATURE REVIEW
## Theoretical Review

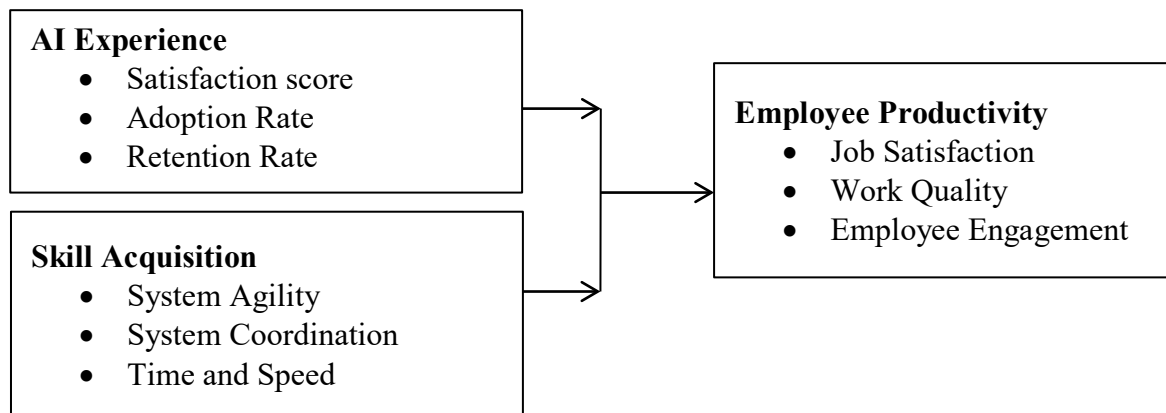### Experiential Learning Theory (ELT) by David Kolb
ELT is based on the idea that learning is a continuous process grounded in experience and that the way individuals process and integrate their experiences influences their learning and development (Passarelli & Kolb, 2023). The theory provides a valuable framework for understanding how individuals learn through experience and how educators and trainers can design effective learning experiences to promote meaningful learning and development. Kolb (1984) views learning as an integrated process of four stages, with each stage mutually supporting and feeding into the next.

### Skill Acquisition Theory by Robert DeKeyser
This theory posits that skill development typically progresses from a cognitive stage, where learners rely heavily on conscious thought and instructions, to an associative stage, where they begin to refine their technique and reduce errors through practice (DeKeyser, 2020). It states that in the autonomous stage, the skill becomes more automatic and requires less conscious effort. This theory emphasizes the importance of practice, feedback, and gradual improvement as employees move from novices to achieving expertise in AI.

**Conceptual Framework**

A conceptual framework is a written or visual presentation that explains either graphically or in a narrative form, the main things to be studied such as the key factors, concepts, or variables and the presumed relationship among them, (Gumbo, 2015).

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┌─────────────────────────────┐
│ AI Experience               │
│   • Satisfaction score      │────────┐
│   • Adoption Rate           │        │
│   • Retention Rate          │        │        ┌─────────────────────────────┐
└─────────────────────────────┘        └───────▶│ Employee Productivity       │
                                                │   • Job Satisfaction        │
┌─────────────────────────────┐        ┌───────▶│   • Work Quality            │
│ Skill Acquisition           │        │        │   • Employee Engagement     │
│   • System Agility          │────────┘        └─────────────────────────────┘
│   • System Coordination     │
│   • Time and Speed          │
└─────────────────────────────┘
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Independent Variables                                  **Dependent Variable**
**Figure 1: Conceptual Framework**

**AI Experience**

Satisfaction score is a metric used to gauge user contentment with an AI-driven service or system, often calculated based on factors like ease of use, and the quality of interaction with the AI while adoption rate is the speed and extent to which individuals or organizations integrate AI technologies into their operations, often influenced by their experience and familiarity with AI tools and applications (Njagi & Ndavula, 2020). Retention rate on the other hand refers to the percentage of employees who remain in their roles within an organization over a given period, which can be influenced by their engagement and satisfaction with AI-driven tools and workflows.

**Skills Acquisition**

System agility in AI typically refers to the ability of artificial intelligence systems to adapt quickly and effectively to new data, changes in the environment, or evolving requirements (Tanui & Ombui, 2021). Component coordination on the other hand refers to the process by which different components or agents work together effectively to achieve a common goal, often involving the alignment of learning strategies, resource management, and interaction protocols. In the context of AI and as far as skills acquisition is concerned, time and speed refer to the rate at which an AI system can learn from data and improve its performance, which is crucial for adapting to new tasks and optimizing its capabilities efficiently (Kireru, Karanja & Namusonge, 2023).

**Empirical Review**

**AI Experience and Employee Productivity**

Experience refers to the knowledge, skills, and understanding gained through direct involvement or participation in activities, events, or work over time and encompasses both the practical application of learned concepts and the personal growth that arises from encountering and overcoming challenges (Kolb, 2014). This accumulation of knowledge through experience enables individuals to make informed decisions, adapt to new situations, and approach tasks with a nuanced perspective.

In a study conducted by Wei Shi and Matthew Weber on the impact of entrepreneurs' prior experience on perceived knowledge access, findings demonstrated that entrepreneurs' prior experience and their perceived ability to access knowledge plays a positive role in influencing media use and knowledge network engagement. While media use is a positive predictor of perceived knowledge access, engagement within knowledge networks shows no direct influence on perceived knowledge access (King, 2020).

A similar study was conducted in Australia by Dawn Bennetta, Elizabeth Knight, and Ian Li on the impact of experience on university students' perceived employability (Bennett, 2023). The findings, illustrated by students' text-based descriptions of their employability development activities, suggest a hierarchical relationship between pre-entry work experience and more confident self-perceptions of employability.

There is no doubt that concurrent work and study can help higher education students to develop their generic skills, domain skills and knowledge, and academic comprehension (Paisey, 2019). Students' engagement with work appeared to enhance their confidence in their job-crafting skills; this confidence was evidenced across the range of employability constructs that positively impact the likelihood of graduates being able to secure graduate-level work (Bennett, 2023).

Shahzeb, Ghulam and Muhammad (2021) assessed the effect of AI experience on work performance among medical librarians in Pakistan. The research adopted a quantitative survey method, utilizing a census method to approach the medical head librarians in Pakistan. Data collection was conducted through an online questionnaire administered to 124 medical head librarians employed in institutions recognized by the Pakistan Medical and Dental Council (PMDC) and the Higher Education Commission (HEC). The findings indicated that the medical head librarians displayed high levels of perceived AI literacy and work performance. Furthermore, the analysis revealed that AI literacy had a statistically significant and positive impact on work performance. The study concluded that AI experience has a positive influence on employee performance.

Nwineewii and Adekemi (2022) researched on artificial intelligence (AI) experience on employee productivity in public hospitals in Rivers State Cross sectional research design was adopted in studying two public hospitals in Port Harcourt (i.e University of Port Harcourt Teaching Hospital and Braithwaith Memorial Hospital). From the field survey, we retrieved and analyzed two hundred and fifty-nine sets of questionnaire using regression analytical tool in determining the causal relationships existing among the variables. The findings revealed that the dimensions artificial intelligence namely; chatbot, AI diagnostics and automation exhibited significant effect on employee productivity within the hospitals. The study then concluded that the artificial intelligence experience affected employee productivity within the organization.

Mboya (2021) assessed the impact of artificial intelligence experience on technical and vocational education and training: A case study of the Kisumu national polytechnic, Kenya. The sample size was determined using the Taro Yamani model, which selected 377 students from a population of 6,431 with a 5% margin of error. Additionally, 110 academic staff, 10 administrators, 45 technical staff and 32 former students participated in the research. This study used descriptive and explanatory design; in addition, desktop library research was also used to collect secondary data. Research findings showed that AI experience supports personalized learning by tailoring learning content to students' individual needs and learning styles. There was also a positive relationship between AI experience and learning-teaching in TVET. The study concluded that AI experience has a positive significance on organization performance.

Abdiaziz (2024), determined the impact of artificial intelligence experience on the productivity of human resource professionals in Kenya. The research employs a systematic literature review methodology, synthesizing data from peer-reviewed journals, industry reports, and government publications. This approach ensures a comprehensive understanding of AI's applications in HRM, particularly in talent acquisition, employee engagement, performance management, and administrative operations. The study also examines the challenges and ethical considerations associated with AI adoption, including concerns about data privacy, algorithmic bias, and workforce adaptation. Key findings highlight that AI-driven HR solutions improve recruitment efficiency, enhance employee engagement, and provide data-driven insights for better decision-making. However, barriers such as resistance to technological change and the need for upskilling HR professionals remain significant. Addressing these challenges through policy interventions, capacity building programs, and AI literacy initiatives will be crucial in ensuring effective AI integration in Kenya's HR sector. Findings indicate that AI significantly enhances HR productivity by automating repetitive tasks, streamlining recruitment, and providing data-driven insights for decision-making. However, challenges such as resistance to change, ethical concerns, and the need for up-skilling HR professionals remain significant. The study concluded that integrating AI into HR requires a strategic approach balancing technological advancements with human-centric considerations.

Njagi and Ndavula (2020) researched on the influence of AI experience on digital transformation of Kenya Airways. The study employed the convergent parallel mixed methods design. The study targeted all the 410Management staff holding positions designated Grade H11 to H15 all the departments as of March 2020. The sampling was guided by Taro Yamane formula which yielded a sample size of 157 respondents. A questionnaire tool and an interview guide were used to collect data. Data was analyzed using both descriptive and inferential statistics. The study found out that digital transformation process varied across the various departments and was therefore not harmonized across the entire organization; cloud computing, website modernization, journey maps and employee performance tracking initiatives were responsible for majority of the variations in the digital transformation of the organization; and the use of customer journey maps and employee performance tracking impacted the most on digital transformation at Kenya Airways. The use of data and digital technologies to understand the customer needs behavior and to develop responsive products had led to digital transformation at Kenya Airways. The study concluded that AI experience has a significant positive influence on organization performance.

**Skill Acquisition and Employee Productivity**

Skill is the ability to acquire practical knowledge in new conditions and based on the abilities and experiences a person had previously. It is an activity that is developed by a person with time and becomes automatic in terms of performing the required skill (Nneoma, 2017). According to Oke (2019), certain skills can be considered acquired when a person can perform it without thinking about the technique of performing this action or dividing a process into conventional parts.

A study conducted by Barinua & Olatokunbo (2022) on the impact of skill acquisition on entrepreneur development recommended that prospective entrepreneurs should ensure that necessary skills armed to enhance their businesses are acquired before venturing into their choice businesses; there should be a thorough knowledge of the pros and cons of business by prospective entrepreneurs before committing their financial resources and time on the business.

Acquiring diverse skills allows entrepreneurs to adapt to changing market dynamics, make informed decisions, and efficiently manage resources, for instance, understanding financial management, marketing, and technology can help entrepreneurs reduce costs, reach broader audiences, and optimize operations (Barinua 2022). Therefore, skill acquisition is crucial for entrepreneurs as it directly influences their ability to innovate, manage, and scale their businesses.

In the study by Ding (2021) titled "The Role of Skill Acquisition in Enhancing Cognitive Flexibility," the researcher found that skill acquisition plays a significant role in improving an individual's cognitive flexibility, which is the ability to adapt to new information, switch between tasks, and think creatively. The study demonstrated that as individuals acquire new skills, they develop more efficient neural pathways, which enhances their ability to process information and respond to changing environments.

Ekpe and Razak (2023) assessed the effect of skill acquisition on enterprise creation among Malaysian youths. A survey, and proportionate stratified random sampling method, was adopted to collect data from a sample of 240 youths in Malaysia peninsula. Data were analyzed using descriptive statistics and hierarchical regression methods. The results revealed that self-motivation moderated between skill acquisition and enterprise creation among the youths. Result also indicated that skill acquisition had significant positive effect on enterprise creation among Malaysian university graduates. The study concluded that skill acquisition had significant positive effect on organization performance.

Ofobruku and Nwakoby (2020) determined the effects of skills acquisition on employees' Productivity in Nigeria Insurance Industry. The survey research methodology was employed in this study, this enable the researchers to successfully gain greater insight on the subject and resolve unexpected issues. The findings of the study shows that in order for organization to achieve optimum returns from her investment, there is the need to develop training programs and effectively managed training of employees', which is the most vital asset of organizations and the dynamic of their productivity. The study concluded that the insurance industry in Nigeria as a matter of urgency should formulate policies that enshrine employees skill acquisition so as to improve employees' productivity in the industry, in order to arrest the present poor productive situation.

Kireru, Karanja and Namusonge (2023) examined the role of skill acquisition processes on competitive advantage of telecommunication firms in Nairobi City County, Kenya. The study employed a descriptive cross sectional survey design using both quantitative and qualitative approaches. The purpose of the study was to explore and examine specific testable phenomenon. The sample frame consisted of Safaricom Kenya limited, Airtel Network and Telecom Kenya Orange located in Nairobi City County Kenya with around 6687 employees. The list was drawn for the firm's reports, website and oral interviews. The study found that majority of the respondents agreed that skill acquisition plan contributes to competitive advantage of telecommunication firms. The study also established that majority of the respondents agreed that skill acquisition had a significant relationship with determinant of competitive advantage namely superior innovation speed, and knowledge management. The study concluded that skill acquisition has a significant relationship with determinant of competitive advantage.

Tanui and Ombui (2021) determined the effect of skill acquisition on the performance of Kenya agricultural and livestock research organization. This study adopted a descriptive research design. The unit of analysis which is the study population consisted of the employees of Kenya Agricultural and Livestock Research Organization. The unit of observation which is the target

population consisted of the 145 employees of Kenya Agricultural and Livestock Research Organization from CRI, TRI, SRI and VRI and the sample size was 145 respondents. The study adopted the census method to select respondents from the human resources/administrative department, research scientists and technical staff in the selected agricultural research institutes. Structured questionnaire containing close-ended questions were used to collect primary data for this study. The findings of this research hold that there is a strong positive and significant correlation between the skill acquisition plan and performance of Kenya Agricultural and Livestock Research Organization. The study further established that all the new successful employees are properly inducted on the organization's culture, structure and expectations. The study concluded that skill acquisition has a significant influence on employee performance.

Asava (2022) examined the influence of training on employee productivity in the processing sector: a case of Unga Limited Eldoret, Kenya. The research was intended to determine the influence of training on employees with emphasis on the lower, middle level staff and administrators of Unga Limited, who were randomly selected. The study also sought to assess the training process of Unga Limited and whether training had improved employee performance. A questionnaire was designed using structured questions to collect primary data from employees of Unga Limited, and a total of 81 questionnaires were distributed among the staff of the organization. The study found that skills at UL were ranked third as variables that influence employee performance. The respondents indicated that skills moderately affected employee productivity in Unga Limited. This is because various reasons, including, regular training of employees and the level of engagement of employees in activities that sharpen employees skills. The study concluded that skill acquisition has a great influence on employee productivity in Unga Limited. The study also concluded that knowledge on work related activities had a great influence on employee productivity and general work performance.

## RESEARCH METHODOLOGY

### Research Design

A research design is the arrangement of conditions for data collection and analysis of data in a manner that aim to combine relevance to research purpose with economy in research procedure and constitutes decision regarding what, why, where, when, and how concerning a research study (Kothari, 2022). This study used a descriptive research design which involves collecting data that provides a clear picture of the subject being (Saunders, 2019). Descriptive research entails observational methods, surveys, and case studies, focusing on "what" questions to provide insights into the current state or characteristics of the subject. It involves both qualitative and quantitative.

### Population

Bell and Waters (2014), define target population as the unit of focus by the researcher and represents the entire population. Population is the entire group of individuals, events, or objects having a common observable characteristic (Bhasin, 2020). The National Police Service Commission in Nairobi has a total population of 60 employees. This consists of 5 Commissioners, 20 HR officers, 15 ICT officers, 12 legal officers, and 8 administration officers.

Because of this population, census method was used. A census is a data collection method that involves gathering information from every member of a population, rather than selecting a sample. This approach aims to provide comprehensive data that accurately reflects the characteristics and attributes of the entire group under study (Johnson, 2020).

**Data Collection Tool**

These are the tools and techniques for collecting data from the respondents, (Saunders, 2019). In this study, questionnaires were used. A questionnaire is a structured set of questions or items used by researchers to collect standardized information related to the research objectives from respondents, (Presser, 2021). Questionnaires comprising of structured and unstructured questions were cast off to the respondents.

**Data Collection**

This research used both primary and secondary data. Saunders (2019) defines primary data as original data collected directly through firsthand methods by a researcher for a specific research purpose or study. Secondary data refers to data already collected, processed, and possibly analyzed, which researchers use to support their own research (Johnston 2017).

**Pilot Test Study**

A pilot study is a small-scale preliminary study conducted to evaluate the feasibility, time, cost, risk, and adverse events involved in a research project before the full-scale study (Thabane et al., 2019). The researcher conducted a pilot study in anticipation of the main research study and shall hereby utilize 10% of his colleagues in the pilot study to help unearth any errors and minimize potential errors that are often unexpected. A pilot study enhances the questionnaire's validity hence for this study pilot study was conducted on who did not participate in the final data collection. The result of the pilot test was used to identify areas for review in the questionnaire.

**Data Analysis and Presentation**

Data was analyzed with SPSS V26 and was presented in form of tables. This research model that underpins the study was as follows:

$$Y = \beta o + \beta_1 x_1 + \beta_2 x_2 + \varepsilon$$

Where,        Y = Employee Productivity

                      $\beta o$ = Constant

                      $x_1$ = Employee Experience

                      $x_2$ = Skill acquisition

                      $\varepsilon$ = Error Term

**FINDINGS AND DISCUSSIONS**

**Descriptive Statistics Analysis**

**AI Experience and Employee Productivity**

The first specific objective of the study was to establish the influence of AI experience on employee productivity in NPSC, Kenya. The respondents were requested to indicate their level of agreement on the statements relating to AI experience and employee productivity in NPSC, Kenya. The results were as shown in Table 1.

From the results, the respondents agreed that users are satisfied with the performance of the AI tools they interact with (M=3.832, SD= 0.657). In addition, the respondents agreed that the AI system is effective in meeting needs and expectations (M=3.824, SD= 0.609). Further, the respondents agreed that the organization successfully integrated AI into key business processes, leading to broad adoption (M=3.809, SD=0.650).

From the results, the respondents agreed that employees are open to incorporating AI technologies into their workflows (M=3.751, SD= 0.828). In addition, the respondents agreed that employees continue to use AI tools consistently over time due to their perceived value (M=3.733, SD= 0.710). Further, the respondents agreed that AI tools are regularly used by employees in their day-to-day tasks (M=3.717, SD=0.741).

**Table 1: AI Experience and Employee Productivity**

|  | Mean | Std. Deviation |
|---|---|---|
| Users are satisfied with the performance of the AI tools they interact with. | 3.832 | 0.657 |
| The AI system is effective in meeting needs and expectations. | 3.824 | 0.609 |
| The organization successfully integrated AI into key business processes, leading to broad adoption. | 3.809 | 0.650 |
| Employees are open to incorporating AI technologies into their workflows. | 3.751 | 0.828 |
| Employees continue to use AI tools consistently over time due to their perceived value. | 3.733 | 0.710 |
| AI tools are regularly used by employees in their day-to-day tasks. | 3.717 | 0.741 |
| **Aggregate** | **3.778** | **0.699** |

**Skill Acquisition and Employee Productivity**

The second specific objective of the study was to determine the influence of skill acquisition on employee productivity in NPSC, Kenya. The respondents were requested to indicate their level of agreement on various statements relating to skill acquisition and employee productivity in NPSC, Kenya. The results were as presented in Table 2.

From the results, the respondents agreed that adaptation to new systems and processes is effectively managed within the organization (M=3.901, SD= 0.921). In addition, the respondents agreed that training provided enhances the ability to adjust to new tools and technologies swiftly (M=3.879, SD= 0.806). Further, the respondents agreed that collaborative efforts across systems and teams are well-structured and effective (M=3.844, SD= 0.839).

The respondents also agreed that communication between different systems and departments is efficient and seamless (M=3.755, SD= 0.771). In addition, the respondents agreed that tasks are completed within the designated time frames without compromising quality (M=3.694, SD= 0.596). Further the respondents agreed that there is a noticeable improvement in processing speed under pressure or tight deadlines (M=3.683, SD=0.638).

**Table 2: Skill Acquisition and Employee Productivity**

|  | Mean | Std. Deviation |
|---|---|---|
| Adaptation to new systems and processes is effectively managed within the organization. | 3.901 | 0.921 |
| Training provided enhances the ability to adjust to new tools and technologies swiftly. | 3.879 | 0.806 |
| Collaborative efforts across systems and teams are well-structured and effective. | 3.844 | 0.839 |
| Communication between different systems and departments is efficient and seamless. | 3.755 | 0.771 |
| Tasks are completed within the designated time frames without compromising quality. | 3.694 | 0.596 |
| There is a noticeable improvement in processing speed under pressure or tight deadlines. | 3.683 | 0.638 |
| **Aggregate** | **3.793** | **0.762** |

**Employee Productivity**

The respondents were requested to indicate their level of agreement on various statements relating to employee productivity at the National Police Service Commission in Kenya. The results were as presented in Table 3.

From the results, the respondents agreed that employees are satisfied with their current roles and responsibilities (M=3.871, SD=0.848). In addition, the respondents agreed that employees feel content with the recognition and rewards received for their work (M=3.854, SD=0.790). Further, the respondents agreed that employees consistently produce high-quality work that meets or exceeds expectations (M=3.806, SD=0.656).

From the results, the respondents agreed that employees take pride in ensuring their work is accurate and thorough (M=3.758, SD=0.756). In addition, the respondents agreed that employees are motivated to give their best effort at work, even when challenges arise (M=3.730, SD=0.657). Further, the respondents agreed that employees feel a strong sense of commitment to the company's goals and values (M=3.673, SD=0.719).

**Table 3: Employee Productivity**

| | Mean | Std. Deviation |
|---|---|---|
| Employees are satisfied with their current roles and responsibilities. | 3.871 | 0.848 |
| Employees feel content with the recognition and rewards received for their work. | 3.854 | 0.790 |
| Employees consistently produce high-quality work that meets or exceeds expectations. | 3.806 | 0.656 |
| Employees take pride in ensuring their work is accurate and thorough. | 3.758 | 0.756 |
| Employees are motivated to give their best effort at work, even when challenges arise. | 3.730 | 0.657 |
| Employees feel a strong sense of commitment to the company's goals and values. | 3.673 | 0.719 |
| **Aggregate** | **3.782** | **0.738** |

**Correlation Analysis**

The present study used Pearson correlation analysis to determine the strength of association between independent variables (AI experience and skill acquisition) and the dependent variable (employee productivity at the National Police Service Commission in Kenya). Pearson correlation coefficient range between zero and one, where by the strength of association increase with increase in the value of the correlation coefficients.

**Table 4: Correlation Coefficients**

| | | Employee Productivity | AI Experience | Skill Acquisition |
|---|---|---|---|---|
| Employee Productivity | Pearson Correlation | 1 | | |
| | Sig. (2-tailed) | | | |
| | N | 49 | | |
| AI Experience | Pearson Correlation | .856** | 1 | |
| | Sig. (2-tailed) | .003 | | |
| | N | 49 | 49 | |

| Skill Acquisition | Pearson Correlation | .864** | .160 | 1 |
|---|---|---|---|---|
| | Sig. (2-tailed) | .002 | .013 | |
| | N | 49 | 49 | 49 |

The results revealed that there is a very strong relationship between AI experience and employee productivity at the National Police Service Commission in Kenya (r = 0.856, p value =0.003). The relationship was significant since the p value 0.003 was less than 0.05 (significant level). The findings conform to the findings of Shahzeb, Ghulam and Muhammad (2021) that there is a very strong relationship between AI experience and employee productivity.

The results also revealed that there was a very strong relationship between skill acquisition and employee productivity at the National Police Service Commission in Kenya (r = 0.864, p value =0.002). The relationship was significant since the p value 0.002 was less than 0.05 (significant level). The findings are in line with the results of Barinua and Olatokunbo (2022) who revealed that there is a very strong relationship between skill acquisition and employee productivity

**Regression Analysis**

Multivariate regression analysis was used to assess the relationship between independent variables (AI experience and skill acquisition) and the dependent variable (employee productivity at the National Police Service Commission in Kenya)

**Table 5: Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .853 | .728 | .727 | .10120 |

a. Predictors: (Constant), AI experience and skill acquisition

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r-squared for the relationship between the independent variables and the dependent variable was 0.728. This implied that 72.8% of the variation in the dependent variable (employee productivity at the National Police Service Commission in Kenya) could be explained by independent variables (AI experience and skill acquisition).

**Table 6: Analysis of Variance**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 116.186 | 2 | 58.093 | 135.729 | .000b |
| | Residual | 9.432 | 46 | .214 | | |
| | Total | 125.618 | 48 | | | |

a. Dependent Variable: employee productivity at the National Police Service Commission in Kenya

b. Predictors: (Constant), AI experience and skill acquisition

The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 135.729 while the F critical was 2.584. The p value was 0.000. Since the F-calculated was greater than the F-critical and the p value 0.000 was less than 0.05, the model was considered as a good fit for the data. Therefore, the model can be used to predict the influence of AI experience and skill acquisition on employee productivity at the National Police Service Commission in Kenya.

**Table 7: Regression Coefficients**

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|

| | | B | Std. Error | Beta | | |
|---|---|---|---|---|---|---|
| 1 | (Constant) | 0.217 | 0.057 | | 3.807 | 0.000 |
| | AI experience | 0.379 | 0.098 | 0.378 | 3.867 | 0.000 |
| | skill acquisition | 0.365 | 0.094 | 0.364 | 3.883 | 0.001 |

a Dependent Variable: employee productivity at the National Police Service Commission in Kenya

The regression model was as follows:

$$Y = 0.217 + 0.379X_1 + 0.365X_2 + \varepsilon$$

The results revealed that AI experience has significant effect on employee productivity at the National Police Service Commission in Kenya, β1=0.379, p value= 0.000). The relationship was considered significant since the p value 0.000 was less than the significant level of 0.05. The findings conform to the findings of Shahzeb, Ghulam and Muhammad (2021) that there is a very strong relationship between AI experience and employee productivity.

In addition, the results revealed that skill acquisition has significant effect on employee productivity at the National Police Service Commission in Kenya β1=0.365, p value= 0.001). The relationship was considered significant since the p value 0.001 was less than the significant level of 0.05. The findings are in line with the results of Barinua, and Olatokunbo (2022) who revealed that there is a very strong relationship between skill acquisition and employee productivity.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

The study concludes that AI experience has a positive and significant effect on employee productivity in NPSC, Kenya. Findings revealed that satisfaction score, adoption rate and retention rate influences employee productivity in NPSC, Kenya.

The study also concludes that skill acquisition has a positive and significant effect on employee productivity in NPSC, Kenya. Findings revealed that system agility, system coordination and time and speed influence employee productivity in NPSC, Kenya.

### Recommendations

The study recommends that the management of National Police Service Commission in Kenya should integrate AI-driven tools for administrative tasks and decision-making processes. By providing employees with training on AI applications tailored to their roles such as data analysis, predictive policing, and automated case management systems NPSC can streamline routine tasks, reduce errors, and free up time for more strategic work.

The study also recommends that the management of National Police Service Commission in Kenya should establish a continuous professional development program that includes both technical and soft skills training. By regularly offering training sessions in areas like investigative techniques, cybersecurity, leadership, and communication skills, NPSC can ensure that employees are equipped with the most up-to-date and relevant skills.

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