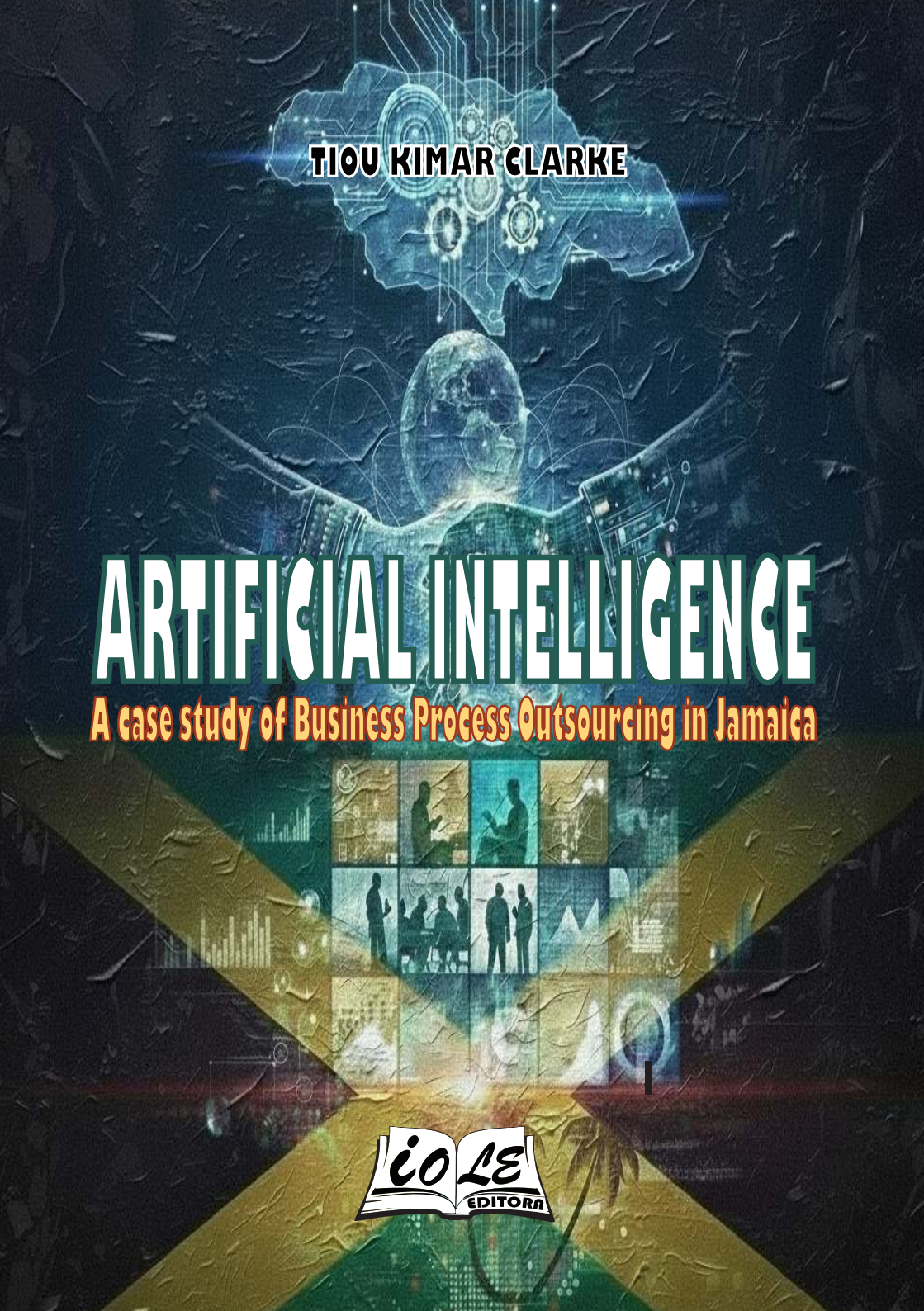
TIOU KIMAR CLARKE

ARTIFICIAL INTELLIGENCE

A case study of Business Process Outsourcing in Jamaica



EDITORA

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A case study of Customer Service in a Jamaican Company

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A case study of Business Process Outsourcing in Jamaica

TIOU KIMAR CLARKE

BOA VISTA/RR
2026

Editora IOLE

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TABLE OF CONTENTS

INTRODUCTION | 07

CHAPTER 1 |
Literature Review 23

CHAPTER 2 |
Methodology 85

CHAPTER 3 |
Results 109

CHAPTER 4 |
Discussion 169

CONCLUSION | 217

REFERENCES | 223

ABOUT THE AUTHOR | 239

INTRODUCTION

INTRODUCTION

The Business Process Outsourcing (BPO) industry has become a vital source of job creation, investment, and cost-saving strategies for many countries and Fortune 500 companies (WILLIAMS, 2022). Many businesses, such as Conduent and Vistaprint, as well as health insurance providers, have established operations in developing nations like Jamaica, Trinidad, and the Dominican Republic, utilizing these countries as nearshore and offshore locations. These sites are used to set up BPO or call centers that handle document processing, customer service, and other back-office tasks that would typically be expensive in the home country (HASAN; KARIM, 2022).

The governments of these developing countries, particularly Jamaica, have entered into agreements with international companies that provide business process outsourcing services, enabling more companies to outsource their operations to Jamaica. In return, creating jobs increases government revenue, and the clients of BPO companies can save on labor costs without sacrificing quality (MONDEJAR; ASIO, 2023).

The growth of Artificial Intelligence (AI) and related technologies has transformed how many businesses execute processes (BHARADIYA; THOMAS; AHMED, 2023). Companies now utilize AI tools such as chatbots (designed to give customers instant responses to frequently asked questions), Robotic Process Automation (RPA) (used to automate repetitive and time-consuming tasks), Machine Learning (ML) (helping analyze large data sets), and Natural Language Processing (NLP) (used to extract insights from unstructured data and make recommendations for projection) as a new way to boost efficiency in meeting customer and client needs (DAVENPORT, 2018).

While BPO has traditionally thrived by leveraging the intelligence of its employees, in recent years, AI has become an essential part of how specific processes are executed (BHARADIYA; THOMAS; AHMED, 2023). The use of chatbots has decreased the number of chats or calls to the contact center for frequently asked questions. Consequently, members of the workforce team now rely on AI to analyze historical data and suggest management actions to improve productivity. Human Resources is now utilizing tools built into AI, such as the Application Tracking System (ATS), to screen candidates based on the content of their resumes in comparison to predefined criteria. A member of the recruiting team then reviews the resumes that pass the ATS. Senior management utilizes information from AI to inform their decision-making (WILSON; DAUGHERTY, 2018).

With AI taking over tasks once done by service agents, concerns about job security in this industry have grown. Understanding BPO in the context of Jamaica was important because there is a lack of information on how technology impacts this sector. Worries about the future of the BPO industry have become more serious. Will there be a significant demand for agents who lack skills in these emerging technologies? How will customers feel knowing that a bot is answering their calls? Special emphasis was placed on Jamaica, as studies are limited in understanding various industries.

This book aimed to investigate how BPO customer service agents in Jamaica perceive AI in the BPO sector, examine their concerns about job security, and identify practical strategies that Jamaican BPO companies can adopt to alleviate these concerns and promote the acceptance of these technologies. The findings from this study also increased awareness and helped agents better understand the use of AI and its role in their job functions. Additionally, this contributes to the existing body of knowledge and can serve as a reference for future research within the Caribbean and globally.

BACKGROUND OF THE PROBLEM

AI and its related technologies have so far replaced several roles across various industries, leading to increased unemployment (PERIFANIS; KITSIOS, 2023). This change indicates that as ML, RPA, and NLP become more efficient, many more jobs will become obsolete (JAIN, 2023). Enholm *et al*. (2022) observed that while some people worry about reduced productivity and loss of freedom due to AI integration, others believe humans may benefit more from AI's dominance. Webb (2019) noted that as AI's impact on the labor market may lower wage inequality by a ratio of 90:10, the shift may not significantly impact the top one percent of earners globally. A bigger question now arises: what will happen to the low-skilled jobs currently occupied by low-skilled workers? What about those low-skilled roles in the BPO sector? What will become of those jobs? US-based companies primarily support the BPO sector in Jamaica and are continually exploring new ways to enhance productivity.

Call centers in Jamaica must stay current on global developments to better prepare for client requests (IBRAHIM; HANAFI, 2013). In the BPO industry, the goal is to find the most efficient and cost-effective way to operate while delivering top customer satisfaction (LACITY; WILLCOCKS; CRAIG, 2014). Sestino and De Mauro (2022) observed that the rapid integration of these advanced technologies into business operations would significantly affect the roles of many lower-level employees.

BPO companies across different industries are beginning to optimize their operations by using advanced AI, including bots, Resource Information Systems, and applications (ZHANG; LI; LIU, 2023). In the Jamaican context, there are no policies in place to regulate the use of AI in the workplace and its effect on job roles in

the BPO sector, nor are there established strategies for these (FISHER *et al*., 2023).

PROBLEM STATEMENT

The BPO sector in Jamaica is a significant source of jobs and tax revenue for the government (BLACKWOOD, 2023). The increase of BPO centers within ICA and the rise of AI and related technologies have raised concerns about job security for customer service agents in Jamaica. AI and its tools can enhance business operations, create new roles, and provide more insightful data analysis. However, there is growing concern that many traditional customer service jobs in the BPO sector could become redundant due to the adoption of AI-powered solutions.

The lack of regulatory policies and strategies governing the use of these AIs has heightened the concerns of BPO agents in Jamaica. Therefore, it is crucial to understand how traditional customer service agents perceive AI integration into their work, explore concerns about job security, and develop practical strategies that BPOs in Jamaica can use to promote acceptance of AI and ease worries about job stability. Addressing these issues would enable companies to better understand their employees, identify long-term solutions to job security concerns, and promote the adoption of AI in various job roles.

This study will provide essential support to traditional customer service agents in becoming AI literate, enabling them to effectively integrate technology into their daily work. It aims to understand the perceptions and job security concerns of customer service agents in Jamaican BPO companies and to suggest practical

strategies both locally and internationally to encourage AI adoption in the industry.

PURPOSE OF THE STUDY

This research aims to examine how customer service agents in Jamaican BPO companies perceive job security and their acceptance of AI technologies in the customer service sector. This study seeks to understand how these agents view the impact of AI on their roles and responsibilities, critically analyze their concerns about job security amid the increased adoption of AI, identify and propose actionable strategies that the Jamaican BPO industry—and by extension, the global industry—can use to improve staff acceptance of AI-based solutions, address job security worries, and foster a positive attitude toward AI integration.

The study will also lay the groundwork for further research into AI and the BPO industry, as well as offer a deeper understanding of the opportunities and challenges within the Jamaican context. Additionally, this research will serve as a foundation for future studies across the Caribbean and globally.

RESEARCH OBJECTIVES

To fulfill the aim of the study, which is to explore BPO agents' perceptions of AI in customer service and their job security concerns, the objectives are as follows:

1 To understand how Jamaican BPO customer service agents view the integration of AI into their work;

2 To examine job security concerns among agents related to AI integration and its impact on their roles and employment prospects;

3 To identify strategies that BPO companies in Jamaica can use to address job security concerns caused by AI integration.

RESEARCH QUESTIONS

1 What is the perception of Jamaican BPO customer service agents regarding AI integration in their work?

2 What are the job security concerns among agents concerning AI integration and its impact on their roles and employment prospects?

3 What strategies can Jamaican BPO companies employ to address job security concerns arising from AI integration?

HYPOTHESIS BASED ON OBJECTIVES

***Objective 1**: To understand how Jamaican BPO customer service agents perceive the integration of AI into their work.*

- **H1**: BPO customer service agents with higher levels of AI knowledge will have more positive perceptions of AI integration in the workplace.
  - **Null H1**: There is no relationship between BPO customer service agents' levels of AI knowledge and their perceptions of AI integration in the workplace.

- **H2**: Younger BPO customer service agents will have more positive perceptions of AI integration compared to older agents.
    - **Null H2**: There is no difference in perceptions of AI integration between younger and older BPO customer service agents.
- **H3**: BPO customer service agents with more experience in the industry are more likely to have negative perceptions of AI integration due to perceived threats to job security.
    - **Null H3**: There is no relationship between BPO customer service agents' years of experience in the industry and their perceptions of AI integration.

***Objective 2**: To examine job security concerns among agents as they relate to AI integration and its impact on their roles and employment prospects.*

- **H4**: Higher levels of perceived AI knowledge will be associated with lower levels of job security concerns among BPO customer service agents.
    - **Null H4**: There is no relationship between levels of perceived AI knowledge and job security concerns among BPO customer service agents.
- **H5**: BPO customer service agents who believe AI will significantly change their daily tasks will report higher levels of job security concerns.
    - **Null H5**: There is no relationship between BPO customer service agents' beliefs about AI changing their daily tasks and their levels of job security concerns.
- **H6**: BPO customer service agents who believe that AI will lead to new job opportunities in the sector will report lower levels of job security concerns.

- **Null H6**: There is no relationship between BPO customer service agents' beliefs about AI leading to new job opportunities and their levels of job security concerns.

***Objective 3**: To identify strategies to be used by BPO companies in Jamaica to address job security concerns arising from AI integration.*

- **H7**: BPO customer service agents who perceive that their organization will provide adequate training on AI tools and technologies will report lower levels of job security concerns.
  - **Null H7**: There is no relationship between BPO customer service agents' perceptions of their organization providing adequate AI training and their levels of job security concerns.
- **H8**: BPO customer service agents who express a desire for a collaborative work environment where AI and human agents work together will report lower levels of job security concerns.
  - **Null H8**: There is no relationship between BPO customer service agents' desire for a collaborative work environment with AI and their levels of job security concerns.
- **H9**: BPO customer service agents who believe their organization will provide support and resources during the transition of AI integration will report lower levels of job security concerns.
  - **Null H9**: There is no relationship between BPO customer service agents' beliefs about organizational support during AI integration and their levels of job security concerns.

SIGNIFICANCE OF THE STUDY

The study makes a significant contribution to the field by highlighting the concerns of BPO companies' management regarding how AI technologies are affecting traditional customer service roles in Jamaica. It will emphasize the challenges and opportunities related to adopting AI solutions and how this can help in making informed decisions about integrating technology and workforce management.

The study is also significant because it will help improve employee relations by understanding the growing concerns and perceptions of customer service agents regarding the adoption of AI in their roles. From this, companies can develop various strategies that foster a more positive work environment. The study will also assist key industry players in creating policies that guide business practices in Jamaica and extend to the wider Caribbean and global markets. Additionally, this study will have economic implications, as the sector is a significant source of jobs and revenue in Jamaica.

This research will help government policymakers develop policies that protect and enhance the sector's contribution to the country's overall economy. Additionally, the study will encourage employee empowerment by challenging customer service agents to become more familiar with emerging technologies and understand how these can support their growth and development, while also teaching AI literacy.

Ultimately, the study will contribute to the existing knowledge by offering a unique perspective on the Jamaican BPO sector and, by extension, the broader Caribbean region. This research could have international effects as more countries examine industries to understand how the PO industry influences them.

DELIMITATIONS

Some key limitations to note in this study are the geographical focus, as the research concentrates on the Jamaican BPO industry, which may not apply to other countries in the Caribbean or globally. This study primarily examines the perceptions and concerns of customer service agents and may not consider the viewpoints of other stakeholders in the BPO sector.

The study mainly focuses on Chatbots, NLP, RPA, and ML, and may not cover other emerging technologies that could be important to the BPO industry. Regarding policy analysis, although there is a lack of policies concerning AI use, this research might not provide a thorough review of AI-related policies or regulatory frameworks worldwide.

This study will not thoroughly examine all aspects of the BPO industry in Jamaica to understand its economic implications fully. Additionally, while the study aims to offer practical solutions, it thoroughly explores the real-world challenges of implementing these strategies and the effectiveness of companies in doing so.

DEFINITION OF TERMS

- **Business Process Outsourcing (BPO)**: The practice of contracting specific business processes or services to external companies, often in other countries, to save costs and boost productivity (MBANJE; TEFERA, 2023).
- **Artificial Intelligence (AI)**: The use of technology to develop computer programs capable of performing activities like humans (e.g., problem-solving, decision-making, and

interpreting language) that require human intelligence (CHANDRA; GUPTA; AGARWAL, 2020).

- **Chatbots**: AI-powered computer applications that can communicate with clients through text or voice, based on key prompts such as frequently asked questions (FAQs) (ASHFAQ *et al*., 2020).
- **Robotic Processing Automation (RPA)**: The branch of computer science that employs robots or bots with software to automate routine tasks (CHANDRA; GUPTA; AGARWAL, 2020).
- **Machine Learning (ML)**: A branch of computer science focused on creating models and algorithms that enable computers to learn from data to make predictions or decisions (CHANDRA; GUPTA; AGARWAL, 2020).
- **Natural Learning Processing (NLP)**: A subfield of AI focused on enabling computers to understand, interpret, and generate natural or human language (computers speaking and understanding human language) (CHANDRA; GUPTA; AGARWAL, 2020).
- **Job Security**: The idea or impression given to workers that the company will always need their job role and is not at risk of being replaced (BARUCH; VARDI, 2016).
- **Workforce Management**: The set of processes and procedures that companies use to optimize employee productivity and efficiency includes forecasting, scheduling time and attendance, performance management, and compliance (HAVUR *et al*., 2016).
- **Policy Development**: the development of guidelines and rules to regulate the use of AI and related technologies in the

workplace, with a focus on ensuring ethical and responsible use (RYAN; STAHL, 2020).

- **AI Literacy**: the level of knowledge and skill that people, such as customer service representatives, possess in using AI technology effectively in their professional roles (RYAN; STAHL, 2020).

CHAPTER DISPOSITION

The study is organized into four chapters. This first section introduces the study, including background information, problem statements, the study's purpose, research objectives, research questions, significance, delimitations, and definitions of terms. Chapter one reviews the literature across four levels: theoretical review, conceptual review, empirical review, and conceptual framework. Chapter two describes the research methods, including the research design and approach, population and sample size, sampling procedure, measurement of variables, research instrument, type of data, validity and reliability concerns, analytical tools, and ethical considerations. Chapter three will present the results and discussions based on the research objectives. By the end, the last section will conclude the study with a summary of the findings, conclusions, and recommendations.

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CHAPTER 1

Literature Review

LITERATURE REVIEW

A well-written literature review provides a broad platform for readers to gain a deep understanding of the current material (EBIDOR; IKHIDE, 2024). Snyder (2019) takes this a step further by offering a more detailed explanation of the concept of a literary viewpoint as a critical analysis and interpretation of works related to a topic. Based on this, the current chapter will follow this organizational framework.

1. **Theoretical Framework**: This section will critically analyze the core theories that form the foundation of the research area (LUFT *et al*., 2022);
2. **Conceptual Review**: The key concepts related to this study will be carefully defined and explained (TOBI; KAMPEN, 2018);
3. **Empirical Review**: This paper offers a systematic analysis of prior knowledge, identifying knowledge gaps and areas of agreement (MIAKE-LYE *et al*., 2016);
4. **Conceptual Framework**: A conceptual framework will illustrate the relationships among the study's concepts, themes, and perspectives (LUFT *et al*., 2022).

To evaluate the impact of AI on labor markets, Mukherjee (2025) emphasizes the importance of multidisciplinary literature reviews. By incorporating insights from sociology, economics, and organizational psychology, researchers can gain a clearer understanding of how work processes are evolving, how employees view these changes, and how institutional priorities are shifting in

response to AI. This method is especially relevant in the Jamaican BPO industry, where technological adoption and cultural norms intersect with economic challenges. Mukherjee's framework encourages a comprehensive analysis of both macroeconomic trends and employees' micro-level experiences, providing a strong foundation for policy and practice. The chapter concludes with a brief summary highlighting key insights from the literature and their relevance to the research objectives.

THEORETICAL REVIEW

A theoretical framework in research acts as the lens through which key concepts, ideas, and assumptions are viewed within the research context, guiding the research process (LUFT *et al*., 2022). Rougas *et al*. (2022) argued that a theoretical framework functions as a lens for researchers to examine the ideas and themes that form the background of their research. Researchers use these frameworks as tools for analysis to understand the research questions and data. It is essential to understand the attitudes of customer service agents in the BPO industry toward AI acceptance and job security.

Understanding how BPO customer service agents in Jamaica perceive their roles is essential for continuously developing compelling product offerings for BPO clients and fostering growth in the sector. The frameworks that will guide this study are the Technology Acceptance Model (TAM) and the Job Insecurity Framework (JIF). These models will offer a solid theoretical foundation for this research.

TAM was developed by Davis (1989) to understand how people adapt to technology. This model has two main components: users' perceived usefulness and the ease of use of new technology.

These concepts help explain why some individuals in the customer service sector are more willing to adopt new technologies, such as AI tools, while others are hesitant to change. Building on this understanding, the study will apply TAM to examine how BPO employees in Jamaica justify the usability of the AI interface and whether they see such technology as beneficial for improving their job satisfaction and work efficiency.

However, the Job Insecurity Framework (JIF) primarily focuses on how perceived job insecurity impacts employees' practical and psychological well-being. According to this framework, employees who feel anxious or fearful about their jobs becoming automated may also experience anxiety, demotivation, and lower job satisfaction levels (DE ANGELIS; MAZZETTI; GUGIELMI, 2021). To address this research question, it is essential to identify the aspects of job insecurity specifically to customer service agents in order to assess their sensitivity to AI integration. By examining how perceptions of AI implementation impact job security, this study aims to fill a research gap related to AI's effects on workforce stability and employee well-being in the Jamaican BPO sector.

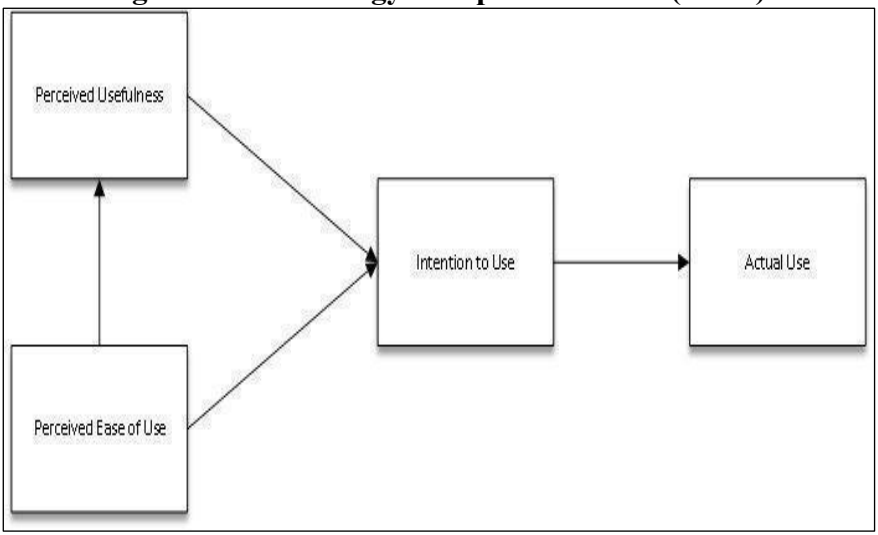
Together, these theoretical models will facilitate research into the relationship between technological acceptance and perceived job insecurity among BPO employees. This approach is equally practical for understanding the current level of AI adoption, as well as for guiding managers and employees on how to engage with AI in the future of work.

TECHNOLOGY ACCEPTANCE MODEL (TAM)

TAM is a framework that describes the observable behaviors humans demonstrate when interacting with an information system

(OPOKU; ENU-KWESI, 2020). TAM concentrates on two main factors based on the end-user's perception: perceived usefulness (whether the system will make their job easier) and perceived ease of use (if it is user-friendly) by the end-users or those affected by the system. It is important to note that TAM pertains to the voluntary adoption of technology. Additionally, people's opinions and perceptions can change with experience, and this may not consider factors such as social and assertive influences, as well as individual differences (ALSYOUF *et al*., 2023).

Figure 1 - Technology Acceptance Model (TAM)



Note: The framework relies on Davis (1989) to show the factors that affect how novice users intend to and use new technology.

This model remains relevant to the study topic, as it aims to analyze users' perceived value and simplicity in the BPO industry at a specific point in time.

As AI becomes increasingly involved in customer service, particularly in BPO environments, it is essential to understand how employees perceive the use of AI technologies. In many areas of customer service, AI solutions like chatbots and Robotic RPA make repetitive tasks simpler, reducing the need for human involvement. These technologies enhance operational efficiency but also raise significant concerns about job security among frontline workers, who worry that their roles might be at risk (SINGH; SINGH, 2024).

Regarding TAM, perceived utility (PU) and perceived ease of use (PEOU) are two crucial factors affecting customer service agents' acceptance and interaction with AI technologies. PU is the belief that AI will enhance job performance; PEOU assesses how easily employees feel they can integrate AI into their daily tasks (DAVIS, 1989). Research by Liu and Liu (2022) shows that PU often has a more substantial influence on technological acceptance in workplace environments. Therefore, for AI to succeed, it must enhance job performance.

Although relying on AI technologies might seem counterintuitive, the JIF operates in a different manner. Specifically, workers in Jamaica's BPO sector are concerned that the increasing use of AI could lead to job losses. Job anxiety arises from fears that AI may replace traditional customer service roles; the absence of clear guidelines worsens these concerns (TIWARI, 2023). This issue is especially significant in developing countries like Jamaica, where BPO companies are rapidly implementing AI to reduce operational costs.

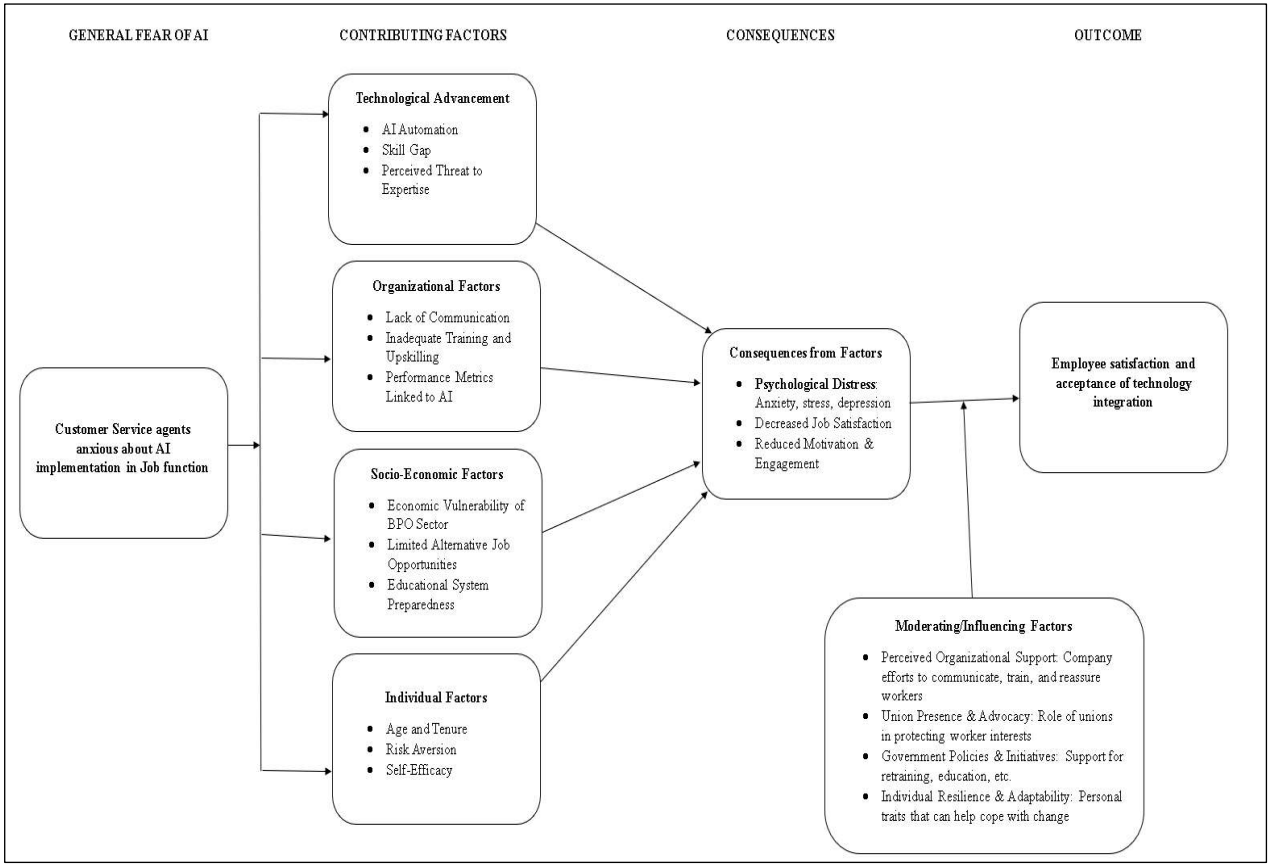
JIF and TAM offer different views on how employees in the BPO industry see the implementation of AI. TAM highlights perceived ease of use and usefulness, suggesting that staff are more likely to accept AI if they believe it improves their work performance (DAVIS, BAGOZZI; WARSHAW, 1989). In contrast, JIF, as explained by Vieira dos Santos *et al*. (2022), focuses on the

psychological effects of AI on job security, arguing that workers may oppose AI due to concerns about losing their jobs. While Granic and Marangunic (2019) support the versatility of TAM across various technology-related contexts, they also point out that TAM has limitations in capturing emotional reactions related to job insecurity. Applying these ideas to Jamaica's BPO industry, where AI and automation are rapidly changing roles, the lack of reskilling programs leads to increased employment instability. Although TAM offers a technology-focused view, it sometimes misses socioeconomic and psychological issues highlighted by JIF, which are especially important in Jamaica, given the high unemployment rate.

JOB INSECURITY FRAMEWORK

Chirumbolo, Callea and Urbini (2021) define work insecurity as the inability to maintain desirable consistency in a career-threatening situation. They also note that job uncertainty refers to the impression or experience of doubt and anxiety workers may have about their current employment or future career opportunities. Asfaw and Chang (2019) report that job insecurity can be caused by technological advancements, organizational changes, government policies, and economic instability, among other factors. In this context, changes in the financial sector—such as rising production costs and declining living standards—might impact individuals' job situations. Technological progress can lead to job displacement, while internal company restructuring can result in workers losing their jobs, thereby increasing unemployment rates.

Figure 2 - Job Insecurity Conceptual Framework



Note. The Job Insecurity Conceptual Framework outlines the overall fear, contributing factors, consequences, and outcomes of integrating AI into Customer Service.

These factors shape how employees view job security. This study will examine job insecurity in the context of technological advancements, AI, and the perceptions of customer service agents across different industries.

Job security is a major concern in industries like BPO, where roles can be easily automated. Employees in Jamaica's BPO sector, many of whom lack advanced technical skills, are particularly vulnerable. JIF offers a perspective that helps us understand the fears related to AI adoption. Jobs in lower categories are more at risk of being replaced by technology, and this risk rises as automation increases; therefore, workers face job insecurity (ANAND *et al*., 2023).

Empirical studies indicate that organizations overlooking these concerns will experience low morale, reduced productivity, and increased employee turnover. In this context, job security is not merely an economic matter but also a psychological one, as workers need reassurance that AI adoption will not jeopardize their jobs. The issue is even more critical in Jamaica's case due to the lack of a policy framework to guide the use of AI in workplaces (TURI *et al*., 2022).

In summary, TAM and JIF explore how people perceive and accept technology, as well as its potential effects on their jobs. Using these frameworks can provide a deeper understanding of how employees view AI in customer service.

CONCEPTUAL REVIEW

Technological Advancements Driving AI in Customer Service

The rapid development of AI technology has changed customer service, especially in businesses like BPO, where daily

operations rely heavily on automation. Recent AI innovations, such as RPA, virtual assistants, and chatbots, can manage tasks that humans previously handled. These technological advances allow companies to answer simple questions faster, improve response times, and offer around-the-clock support, which in turn benefits (SONG *et al*., 2022). However, these technologies also raise concerns about job security and employee adaptability, even as they provide practical operational advantages.

Artificial Intelligence Technological Developments

From simple rule-based systems to advanced machine learning models that can analyze large datasets, learn from human interactions, and improve responses over time, AI technologies have advanced (SARKER, 2021). Virtual assistants and chatbots can handle bookings, answer common questions, and provide basic troubleshooting support. This technology allows customer support agents to focus on more complex, higher-level tasks while increasing their productivity (SIEMENS *et al*., 2022). Because machine learning techniques enable systems to deliver relevant, contextualized answers based on users' previous interactions, their performance remains high (PUGLIESE; REGONDI; MARINI, 2021).

Despite these developments, one ongoing challenge for AI remains its inability to fully replicate human empathy and advanced problem-solving skills. Although AI performs well in low-complexity tasks, it struggles with high-complexity searches that require emotional intelligence and contextual understanding beyond basic facts (SIEMENS *et al*., 2022). This study emphasizes the importance of human-AI collaboration, where AI supports human agents instead of completely replacing them.

Technology Acceptance Model (TAM), AI, and Employee Adaptation

Davis (1989) developed the TAM, which offers a useful framework for understanding how employees perceive and utilize AI technologies at work. TAM states that two primary factors influence user acceptance: perceived usefulness (PU) and perceived ease of use (PEOU). Regarding AI in customer service, workers are more likely to adopt AI tools if they believe these tools will help them perform their jobs better (PU) and are easy to operate without requiring extensive technical knowledge (PEOU).

However, the impact of AI on job responsibilities could cause opposition, especially if employees feel that technology threatens their job security. Work uncertainty, according to Ma *et al*. (2022), refers to the fear of losing one's job due to external changes, such as the introduction of new technology, since AI can handle simple tasks. This concerns people, especially less experienced workers in sectors like BPO, where automation might make them jobless (FILIPPI; BANNÒ; TRENTO, 2023).

AI and Employment Insecurity in the JIF Outlook

The JIF evaluates job vulnerability caused by outsourcing traditional roles to automated technologies. People may worry about AI replacing monotonous tasks. The BPO sector plays a major role in boosting economic growth in developing countries such as Jamaica by creating jobs. Some individuals lack the skills and educational background needed for higher-value roles in industries that use AI (LIU; ZHAN, 2020).

Liu and Zhan (2020) also added that job insecurity can lead to lowered morale, increased anxiety, and decreased productivity when companies and employees engage in a reciprocal exchange of uncertainty regarding job stability. The research also suggested that developing national policies to promote AI skills should be a priority to foster innovation and drive growth. This approach will support workforce development, reduce the risks of AI-related job instability, and encourage positive progress in these technologies.

The Value of Upskill in AI-Enhanced Systems of Control

Employers need to understand concerns about job insecurity and promote the adoption of AI by developing skills programs that prepare employees for the expectations associated with AI integration in their roles. Morandini *et al*. (2020) asserted that as AI handles routine tasks, skills like critical thinking, cognitive problem-solving, and emotional intelligence will become increasingly important. The study suggests that companies must engage staff in training to perform tasks that require human intelligence, creativity, and decision-making, which AI can augment but not replace.

As a vital part of companies, staff require ongoing training and development to remain competitive in the face of rapidly advancing technologies, according to Kahfi's (2022) results, which indicated that the use of new technologies and innovations, along with inclusiveness and continuity, enhanced employees' PECU and reduced their risk of termination due to technology use. Organizations that promote a culture of continuous learning and innovation are likely to reap benefits, as employees will be satisfied while effectively fulfilling their responsibilities during the integration of AI.

Advances in AI have influenced customer service by providing solutions for repetitive tasks, thereby improving overall operational efficiency. Integrating AI into businesses raises concerns about unemployment and the future of the workforce. TAM and JIF argue that the acceptance of AI technology in the workplace depends on perceived utilitarian benefits and perceived risks to job security (ADAM; WESSEL; BENLIAN, 2021).

Managers should promote skill development and employee training initiatives to address the cognitive and emotional needs of staff in an AI-driven environment. Allowing AI to support human employees rather than compete with them fosters a culture of effective collaboration, thus maintaining employee productivity and satisfaction (ADAM; WESSEL; BENLIAN, 2021).

Artificial Intelligence Integration in Customer Service

The use of AI in customer service is steadily increasing, transforming the way consumers experience services across various industries (GOISAUF; ABADÍA, 2022). AI tools, such as chatbots, have been developed to automate tasks that customer support agents previously handled.

According to Goisauf and Abadía (2022), chatbots are assisting consumers by answering frequently asked questions and providing simple solutions. Despite ongoing advancements, artificial intelligence still cannot fully capture the nuance of human thinking, so human involvement remains necessary for more complex tasks. According to Habib *et al*. (2024), recent changes affecting the consumer experience across new brands include the use of virtual assistants, which are more advanced than chatbots because they can handle additional tasks, such as scheduling appointments

and managing routine complaints. Previously, administrative assistants performed these functions, but now they have been integrated into AI systems, resulting in a shift in job roles. While administrative assistants are still involved in many businesses, their duties have shifted toward more technical tasks, with AI tools supporting their daily operations.

Habib *et al*. (2024) have extensively explored the theoretical elements of AI in customer service. Their focus on identifying the need for new theories and frameworks, including advocating a new perspective on the nature of artificial intelligence in context, limits the study's practical relevance for the service industry. To better understand how current theories can enhance our knowledge of artificial intelligence's impact on customer service, the study could benefit from examining the complexity, problem-solving abilities, and user acceptance of artificial intelligence in the banking sector.

Heinsch *et al*. (2021) suggest that while human agents excel at high-complexity tasks, artificial intelligence is practical and ideal for low-complexity activities. The findings align with the assumption of TAM, which states that people will adopt technology they find easy to use and that addresses their concerns. However, the research by Heinsch *et al*. (2021) involved a small number of participants and mainly focused on the banking industry.

As Huang and Rust (2018) argued, the consequences of AI have led to displacement in the labor market, rather than just at the employment level. While complex tasks remain under human supervision, subordinate operations are being mechanized. According to their studies, individuals seeking to reduce the risk of job loss should learn how to secure higher-level positions. Although most professions involve multiple activities, Huang and Rust (2018) focus on job displacement at the task level; they do not fully describe the nature of entire employment positions. Additionally, the study makes specific assumptions about the rate of artificial intelligence

development and potential technological innovations. Furthermore, ethical questions regarding the replacement of human labor with artificial intelligence have not received sufficient attention.

Within the context of AI integration, job displacement, as defined by the Job Insecurity Framework (JIF), can be reduced through ongoing skill development. Employees and organizations increasingly consider predictive analytics and other fundamental AI technologies helpful in decreasing workloads, and employees are generally willing to adopt them if they see benefits (ZIRAR; ALI; ISLAM, 2022). Especially in the business process outsourcing sector, applying AI technologies in customer service can lead to significant productivity improvements. However, some people worry that human interaction will decrease; these services enhance customer satisfaction as the AI system responds quickly to common questions. Morrow *et al*. (2023) also contend that AI faces challenges in managing emotionally demanding and complex interactions that require human understanding.

For countries like Jamaica, integrating AI into the BPO industry has been a slow process. The continued use of customer service representatives highlights the importance of human interaction. It helps address complex questions. Although artificial intelligence offers numerous technical advantages, the literature sometimes overlooks its social and emotional aspects, which highlight the essential role of live customer contact, especially in sectors that rely on personalized customer interactions.

Customer Service Tools Powered by AI Affect Productivity

Expanding customer service operations with AI has produced impressive results (SINGH; SINGH, 2024). Automating routine

tasks and repetitive searches saves time and effort. Robotic process automation, AI-powered assistants, and chatbots enable customer service professionals to focus on straightforward, data-driven tasks, thereby saving time in resolving issues and fostering strong customer relationships.

Since AI can provide 24/7 service without getting tired, this approach promises faster response times and higher customer satisfaction (ALOWAIS *et al*., 2023). Additionally, artificial intelligence systems might analyze large databases to offer personalized solutions that better meet and predict specific client needs.

The same technologies also help reduce costs by automating work processes and cutting down reliance on humans for repetitive tasks (BATES *et al*., 2021). Automation enables companies to concentrate their resources and efforts on more critical tasks. This connection supports scalability, letting customer service handle the increasing number of questions without needing to hire additional staff.

Later interactions with clients might change the answers provided, using machine learning methods to enhance service quality. Still, consumers of AI in consumer goods have ethical and employment concerns, especially about job loss. Artificial intelligence reduces employment in results-driven jobs, like customer service interactions, even as it increases operational efficiency (SINGH; SINGH, 2024).

Companies in the BPO sector are gradually adopting AI-powered technologies to remain competitive globally and satisfy customer expectations. This shift toward automation may decrease job opportunities in traditional human roles, even as it boosts the country’s ability to attract foreign investment. Therefore, enhanced

training is becoming increasingly essential for employees entering various sectors that are well-suited for AI.

Still, more flexible and adaptable customer relationship management results from combining AI technology with a small degree of human oversight. By replicating routine searches with artificial intelligence and allowing human representatives to interact with their clients, companies can achieve the best of both worlds. Zhao (2022) suggests that artificial intelligence leverages existing skills to provide enhanced adaptability and flexibility in digital services, without replacing human agents.

Job Security in the Age of AI

Anand et al. (2023) define job security as the assurance that employment will continue, fostering confidence among individuals about maintaining their current roles for the foreseeable future (ANAND *et al*., 2023). It includes protection against economic downturns, layoffs, and other factors that could threaten job stability. The rise of AI and related technologies is transforming job roles across many industries. According to Yang (2022), integrating AI into work tasks offers various benefits, including improving and creating non-routine jobs, increasing efficiency and creativity, and enabling individuals to focus more on social relationships and ongoing personal growth. This evolving process creates numerous new businesses and employment opportunities.

Automation has not historically led to significant unemployment. Yang (2022) outlines specific adverse effects of artificial intelligence deployment, including increased labor market segmentation, the replacement of humans in repetitive jobs, and rising inequality resulting from decreased demand for mid-skilled

workers. Additionally, the rapid pace at which computers enhance cognitive skills challenges worker flexibility. Moreover, market incentives may unintentionally encourage businesses to prioritize excessive automation over workforce development, thereby increasing job insecurity.

As AI and automation technologies advance, the workforce needs to acquire new skills to maintain job security. Tschang and Almirall (2020) identified several essential talents for long-term employment, including higher-level cognitive skills such as creative and critical thinking, advanced technology training, and refined social and emotional abilities. These skills are in high demand, with forecasts of a 26 percent growth across industries in the United States. Sectors such as banking, healthcare, manufacturing, and retail are experiencing changes in skill requirements as technology advances, potentially replacing low-skilled workers and leading to job instability (WORLD ECONOMIC FORUM, 2023).

Integrating AI has notable financial impacts. Shen and Zhang predict that as people become more skilled in artificial intelligence technologies, unemployment among certain age groups will increase, and jobs that generate income will decrease. Companies' efforts to cut labor costs likely lead to greater pay gaps, worsening existing inequality. Employees with education aligned to these standards may perceive company practices as unfair, which could lead to a decline in employment rates, as noted by Kim and Jung (2022).

Regarding artificial intelligence, the complex triangle of context, coordination, and interaction between human/artificial technology influences employment stability. Cascio and Montealegre (2016) emphasize the importance of workers actively contributing to the development of new technologies to stay relevant in the market. Achieving efficient work and communication requires integration with artificial intelligence and automation technologies

within companies. Moreover, technology should meet consumer needs, as it cannot be adopted if it does not fulfill their wants and needs.

Businesses and governments must consider the moral implications of artificial intelligence use and establish rules to prevent and lessen bias in AI operations. Siau and Wang (2020) state that identifying and applying ethical uses of artificial intelligence technology will not lead to human unemployment. Companies should ensure that their primary strategies and hiring practices incorporate algorithms that provide all candidates with equal opportunities. Additionally, companies should implement policies banning the use of AI in staffing, trading, and employee assessment. Ignoring this issue could worsen employees' concerns about job security and hinder the company's ability to adopt new technologies (SIAU; WANG, 2020).

Improving technical skills within the company depends on a basic understanding of the Technology Acceptance Model (TAM) and the Job Insecurity Framework (JIF). Cascio and Montealegre (2016) observed that some individuals are ill-prepared for AI to be integrated into the workplace, as they worry that changes in their duties and responsibilities might threaten their jobs. Regarding AI involvement and its impact on job duties, Georgieff and Hyee (2022) also share similar concerns; these views align with JIF, which indicates that workers are hesitant to adopt new technologies and fear losing their jobs to them.

Employee Perception, Adaptation, and Engagement in AI Workplaces

Primarily due to organizational changes, including the adoption of artificial intelligence, employees across various fields

constantly evaluate the worth of their roles. Companies considering technological advancements must first understand how employees perceive, respond to, and adapt to these changes. Garrad and Hyland (2020) highlight the importance of actively interviewing and surveying staff members to gather their opinions on new strategies. Businesses aiming to adjust their policies rely on this feedback, as staff support significantly influences the success of initiatives, including the integration of artificial intelligence.

Sensibility and Participation

Employee perspectives on AI integration significantly influence the acceptance and widespread adoption of these technologies in the workplace. Studies indicate that people who see artificial intelligence as a supplement rather than a threat to their job security are more likely to adopt the technology (LEE *et al*., 2023). This view allows individuals to see artificial intelligence as a tool for both personal and professional growth, motivating and engaging them. Recognizing that artificial intelligence can handle mundane tasks enables workers to focus on more important, creative, or strategic activities, ultimately boosting their job satisfaction and sense of purpose.

Customer service agents and other front-line workers, who often express concerns about how artificial intelligence could affect their jobs by threatening job security, may strongly oppose its implementation (SHEN; ZHANG, 2024). These concerns hinder effective AI integration. Such concerns can lead employees to disengage, decrease their enthusiasm for acquiring new skills, and foster a toxic workplace environment.

Furthermore, how businesses handle changes depends on the link between employee engagement and perception. Employees who get involved in decision-making and have input on integrating artificial intelligence are more likely to stay engaged. Open communication about the advantages of artificial intelligence, such as automating repetitive tasks, lowering stress, and supporting future career growth, can help build a shared sense of ownership in technological innovation (VERČIČ; MEN, 2022).

Strategies for Adjustment

Businesses aiming to address these concerns should launch comprehensive campaigns that highlight the advantages of integrating artificial intelligence and improving AI literacy. They can prepare staff for the evolving demands of their jobs in an AI-driven environment through training programs focused on reskilling and upskilling. These initiatives should emphasize digital literacy, critical thinking, and emotional intelligence, ensuring that employees are prepared to handle tasks that artificial intelligence cannot perform (TSCHANG; ALMIRALL, 2020). Companies might also offer training modules to teach employees how to utilize AI in their roles, demonstrating how these technologies can enhance customer interactions and boost performance.

Shifting employees' perspective, not just regarding technical skills but also about technology overall, allows for quicker adoption of AI within a cultural setting. Businesses should foster a culture of continuous learning and growth, helping employees see AI as a tool for career development rather than a threat. Encouraging employee flexibility and openness to ongoing learning involves offering opportunities for professional advancement through carefully designed upskilling strategies. By providing data-driven insights, AI

can enhance decision-making and enable employees to take on more strategic roles, resulting in a more engaged workforce that supports the company's continued success (MORANDINI *et al*., 2023).

Adaptation also involves creating a collaborative workplace where artificial intelligence is a partner rather than a threat. Promote cross-functional teams by combining human creativity with the analytical power of artificial intelligence to achieve better results and boost employee satisfaction. Companies that adopt this approach are likely to find their staff members more willing to adapt to technological changes (LEE *et al*., 2023).

Promoting Involvement via Support and Transmission of Ideas

Effective communication reduces concerns about the acceptability of artificial intelligence and boosts engagement. Organizations must clearly define the goal of AI integration, highlighting how AI can accelerate processes, enhance work performance, and create new career opportunities rather than eliminate jobs (RAMOS, 2023). Regular updates and open communication channels enable employees to voice concerns and seek answers regarding the use of artificial intelligence in the organization. This transparency helps staff members feel confident and cooperative, thus providing them with security amid technological changes.

Engaged employees recognize the value and respect they receive from their organization. Companies should focus on creating a feedback loop that includes staff at all levels of the organization. Regular surveys or focus groups help gauge how staff perceive the integration of artificial intelligence, guiding necessary adjustments to policies, training, and communication methods. Involving staff in

this way helps boost morale, reduce resistance to artificial intelligence, and foster an environment where staff feel comfortable participating in AI projects (NAZBEHESHTI, 2019).

Companies might also establish mentorship programs to connect staff with artificial intelligence experts or experienced colleagues. These mentoring relationships not only affirm employees' value within the organization but also provide guidance and support as they work through the challenges of implementing artificial intelligence. Companies that focus on supporting their human workforce will help cultivate a culture where people feel comfortable embracing technological progress.

Systems with AI-engaged employees are more willing to test new artificial intelligence technologies, offer opinions on their effectiveness, and suggest ideas to improve the overall adoption process (DENNISON, 2023). Those who successfully apply artificial intelligence to corporate processes should be encouraged to participate through awards or recognition programs, thereby increasing buy-in. Workers who appreciate their efforts in adapting to and interacting with artificial intelligence are more likely to continue supporting AI-related initiatives (HUANG; GURSOY, 2024).

Effective integration of artificial intelligence into the workplace depends on fostering a positive attitude among staff members, offering adaptable solutions, and maintaining engagement by highlighting its benefits. Providing training investments, accessible contact channels, and cultivating a cooperative culture help companies align their staff with artificial intelligence technologies. This proactive approach not only addresses concerns about job displacement but also prepares businesses to fully realize AI's potential in improving operational efficiency and customer service. Companies that prioritize employee involvement, flexibility, and perception alongside AI advancements are more

likely to successfully implement AI-driven improvements that benefit both the organization and its people (CHOWDHURY *et al*., 2022).

Psychological Effects of Artificial Intelligence on Work Ethics

Business Process Outsourcing (BPO) and the use of artificial intelligence (AI) in the workplace can significantly impact employee morale, primarily due to concerns about employment uncertainty. AI-driven job insecurity can lead to lower morale and job satisfaction, as employees often fear displacement due to automation (LEE *et al*., 2023). Customer service representatives should be especially empathetic, as they frequently feel their positions are at risk. When workers doubt the value of their skills in a rapidly changing technological landscape, they may experience a decline in motivation, engagement, and productivity (MISISCHIA; POECZE; STRAUSS, 2022). Additionally, the perceived inability to keep up with technological change can lead to feelings of inadequacy, causing employees to try to control the unpredictability of their future.

The integration of artificial intelligence is affecting Jamaica's BPO sector psychologically. Widespread concerns about management’s limited understanding of AI’s impact on jobs heighten employees’ unease. Nadkarni *et al*. (2021) argue that companies often require blind obedience from employees, which can increase stress and disengagement. This uncertainty affects not only individuals but also leads to a general decline in workplace morale, which in turn harms organizational effectiveness.

Furthermore, studies show that unemployment uncertainty can cause long-term mental health problems, including burnout and

ongoing stress, especially in sectors most worried about automation (NAZARENO; SCHIFF, 2021). People's uncertainty about their situations hampers their ability to improve skills or think creatively, as they focus on short-term survival rather than long-term career growth. In such environments, workers are less likely to be innovative problem solvers or initiators, which lowers job satisfaction and primarily impacts their skills.

The Technology Acceptance Model and the Job Insecurity Framework demonstrate how strongly attitudes influence employee morale. Studies indicate that open communication and offering reskilling or upskilling options help people significantly reduce their anxiety (WILLETT *et al*., 2023). Transparency about AI integration, particularly regarding its impact on employment and the goal of human-AI collaboration, can help alleviate tensions and foster a more open mindset. Additionally, providing employees with training and development programs tailored to their future roles enhances their adaptability and sense of job security. These qualities are essential in fields like BPO, which are constantly evolving.

Companies that actively foster a supportive culture around artificial intelligence tend to have higher employee engagement and retention rates. Using artificial intelligence to offer clear career paths that enhance rather than replace human skills helps rebuild staff confidence. Georgieff and Hyee (2022) state that individuals who view AI as a tool for enhancing work enrichment, rather than a threat, are more likely to adopt new technologies, thereby increasing organizational performance.

More specifically, in fields like BPO, where job stability is a significant concern, the psychological impact of introducing artificial intelligence on staff morale is crucial. Tiwari (2023) expresses concern about how job losses caused by artificial intelligence could lead to anxiety and decreased job satisfaction. The finding aligns with studies by Anand *et al*. (2023), who found that

employment insecurity can have long-term adverse effects on organizational commitment and employees' mental health. Research indicates that workers who see artificial intelligence as a tool to improve their work rather than a threat report higher job satisfaction and engagement (CHOWDHURY *et al*., 2022).

The disparity highlights the importance of considering the workers' perspective, particularly in promoting a moral and commercial society. One criticism of the current research is that it focuses more on short-term psychological impacts than on accurately assessing long-term adaptive techniques that companies may use to enhance worker resilience. Keeping a motivated workforce in Jamaica, where the integration of artificial intelligence is still in its early stages, will depend on addressing the psychological effects of AI on employee morale through effective communication and support systems (RADU, 2023).

The Role of Human-AI Collaboration in Customer Service

Artificial Intelligence (AI) can serve as a supporting tool, rather than replacing customer service personnel, by handling common and simple consumer issues, while reserving more complex, personalized, and emotionally sensitive interactions for human workers (SONG *et al*., 2022). This partnership allows artificial intelligence and humans to focus on tasks best suited to their strengths. While individuals possess emotional intelligence, empathy, and the ability to navigate difficult situations and solve problems, artificial intelligence systems excel in efficiency, speed, and the processing of large amounts of data. This approach not only helps preserve employment but may also boost job satisfaction as workers engage in more meaningful interactions, thereby improving their overall work experience.

For job displacement and concerns in Jamaica's BPO sector, rethinking roles rather than eliminating them is a practical solution. Artificial intelligence replaces routine and low-level tasks, allowing customer service staff to focus on higher-value activities that require human creativity, empathy, and critical thinking (FRANKENBERG, 2024). This strategy not only helps retain jobs but also could boost job satisfaction as employees engage in more meaningful interactions, thereby enhancing their work experience. Additionally, this human-AI collaboration can help the Jamaican BPO sector stand out, meet global client expectations, and stay competitive by providing a better mix of automated efficiency and personalized service.

If companies want to understand the opportunities of human-AI interaction fully, they must prepare their staff to operate with artificial intelligence technologies. Comprehensive training courses that equip staff members with the necessary skills to manage AI technology effectively, understand AI-generated data, and integrate AI insights into customer service efforts contribute to this readiness (MORANDINI *et al*., 2023). Training should focus not only on the technical aspects of artificial intelligence but also on developing essential soft skills, such as adaptability, communication, and emotional intelligence, which are vital for handling situations where AI alone is not enough.

Furthermore, human-AI collaboration in customer service requires an organizational culture where the artificial intelligence partner enhances human work rather than being seen as a threat to it. Promoting this perspective helps employees see artificial intelligence as a helpful tool. It reduces anxiety related to technological change (SOWA; PRZEGALINSKA; CIECHANOWSKI, 2020). Framing artificial intelligence as a supplement to human talent allows companies to build a stronger

workforce capable of adapting to ongoing technological advancements.

Similarly, the shift to human-AI collaboration could create opportunities for upskilling the workforce and for the creation of new roles due to the integration of artificial intelligence. Workers might choose hybrid roles where they oversee the performance of AI systems while handling customer contacts, ensuring that technology continues to meet evolving consumer expectations. Human workers will evaluate the value of artificial intelligence in customer service, which could lead to a more dynamic and future-ready BPO company in Jamaica (CHOWDHURY *et al*., 2022).

The Function of Leadership in Handling AI Transitions

Managing transitions to artificial intelligence within businesses requires strong leadership, particularly in sectors like BPOs that rely heavily on services. Executives must help balance the challenges of implementing new technologies with employees' growing concerns about job security and role changes, as companies increasingly use artificial intelligence to enhance efficiency and streamline operations. Prezerakos (2018) argues that emotionally intelligent leadership is crucial during periods of significant organizational transformation, as it fosters an environment conducive to open communication and cooperation.

Dealing with artificial intelligence primarily depends on leaders having a clear vision and strategy for including it. Leaders must clearly explain why they are employing artificial intelligence and how it relates to business goals, so that people appreciate the advantages of the technology for the firm and their role within it (SIMÓN; RAVILLA; SÁENZ, 2024). Clarity of such a magnitude

suppresses opposition and encourages acceptance because laborers will be more accepting of artificial intelligence, as they can view it as a complement rather than a replacement. Leaders also must actively interact with staff members during the transition phase. Frequent communication, including updates on artificial intelligence projects and opportunities for input, helps build confidence and foster commercial collaboration.

Using current technology in decision-making may significantly raise staff members' loyalty to them, claims Charles, Francis, and Zirra (2021). Leaders can help alleviate the threat of job loss by fostering a more positive attitude toward the inclusion of artificial intelligence, thereby promoting a highly open-minded and embracing society.

Funding training and development is another significant responsibility for leaders navigating the challenges of artificial intelligence. Companies must provide opportunities for reskilling and upskilling when automation changes job responsibilities, so that individuals have the skills they need to succeed in an environment improved by artificial intelligence. Companies that prioritize staff development, as noted by Tschang and Almirall (2021), are better equipped to adapt to technological changes and maintain employee morale and productivity. Executives should primarily support thorough training courses that incorporate both technical knowledge relevant to artificial intelligence technology and fundamental soft skills, such as emotional intelligence and problem-solving, especially in customer interactions.

Leaders also have moral implications to consider when implementing artificial intelligence. Leaders must draft ethical guidelines for the acceptance of artificial intelligence systems, promoting justice and diversity, as they may introduce biases and impact employment security. Rodgers *et al*. (2022) argue that one can claim ethical leadership plays a vital role in ensuring the

responsible application of AI and addressing employee concerns. Encouraging an ethical decision-making culture helps leaders to increase confidence and dedication within the teams working on AI initiatives at their companies.

Artificial intelligence management would require vision, staff participation, addressing ethical issues, training, and overall leadership. An effective leader can create a receptive environment that unlocks the potential of technologies, while also addressing workers' concerns to help companies overcome the challenges posed by integrating artificial intelligence. In this way, the transformation is encouraged, and the team adapts and thrives in the ever-changing landscape of AI-driven customer service.

Muss *et al*. (2025) argue that empathetic leadership plays a crucial role in the transition to AI and service-oriented sectors, such as BPO. The study concluded that more trust and engagement are possible when leaders proactively listen to what employees are saying and co-create solutions. With fear of job security being a major issue in the BPO industry in Jamaica, supportive leadership can help alleviate this by acknowledging the workers' situations and providing clear alternative means of achieving progress. Prezerakos (2018) confirms that emotionally intelligent leaders are required to deal with disruption in the technological landscape.

Employee Skills and Training in AI Environments

As artificial intelligence (AI) increasingly permeates corporate operations, the skills required for customer support positions are rapidly evolving. Conventional expertise, such as procedural knowledge and simple problem-solving, is insufficient in settings enhanced by artificial intelligence, and highly sought after

are advanced cognitive and emotional intelligence skills, as they help workers to handle challenging consumer encounters that AI solutions cannot completely address (TSCHANG; ALMIRALL, 2020). Employees also require technical knowledge to properly implement artificial intelligence systems and understand the data generated by various technologies. This development requires an enhanced understanding of artificial intelligence capabilities, as well as the ability to provide personalized assistance in addition to automated responses.

As the use of artificial intelligence expands, many Jamaican BPO experts find it challenging to fit into this technological context. According to Chowdhury *et al*. (2022), many employees lack the necessary tools to acquire the skills required to thrive in AI-driven settings, due to limited access to comprehensive AI-related training courses. Lack of access to reskilling programs not only limits professional development but also creates employment instability as artificial intelligence technologies replace regular duties traditionally performed by human workers. Businesses risk segregating workers who can and cannot keep up with technological growth, thereby promoting increased labor inequality.

Moreover, given the rapid advancement of artificial intelligence, the need for continuous learning and professional growth becomes more crucial. Among other things, companies must design courses for staff members to develop up-to-date data literacy, critical thinking, empathy, and other fundamental skills. Making sure human workers enhance rather than replace artificial intelligence systems depends on these vital abilities (AKGUN; GREENHOW, 2021). Customer satisfaction will increase if staff members have flexible workspaces where they can learn to utilize AI-driven insights, manage output, and collaborate with technologies.

To close the skills gap, some corporations are collaborating with academic institutions to offer tailored training courses that prepare staff for an AI-dominated future. These projects mix artificial intelligence foundation training with consumer contact management in automated environments (MORANDINI *et al*., 2023). Many others, however, would struggle to compete in an increasingly automated work market without a significant application of such technology. Cooperation between the government and corporate sectors in Jamaica will help design and support publicly available training programs that enable the workforce to effectively enter AI-enhanced jobs, thereby ensuring long-term employability and reducing the risk of obsolescence.

Ultimately, how effectively businesses manage human-AI collaboration will determine the degree of success in integrating artificial intelligence across various fields, including customer service. People still need to be taught to handle more challenging circumstances, as the human touch remains vitally essential for customer service operations, even if artificial intelligence can effectively conduct daily tasks. This equilibrium requires a comprehensive staff training program that supports both technical and soft skills, such as emotional intelligence and flexibility, which are essential for complementing artificial intelligence technology.

Reskilling and Upskilling: Equipping the workforce for artificial intelligence

Given the rapid pace of technological changes altering the nature of work in many areas, it is crucial to emphasize the need for reskilling and upskilling in the era of artificial intelligence (AI). Li (2022) emphasized the need for people to continually improve their skill sets to remain competitive and relevant in an AI-driven

economy, particularly in industries such as Jamaica's BPO sector, where automation is transforming job opportunities. People will be driven into employment, demanding ever-sophisticated skills like computer literacy, problem-solving, and emotional intelligence — capabilities that artificial intelligence cannot yet replicate —as they replace boring, low-skilled occupations.

Projects aimed at equipping the BPO industry in Jamaica should focus on disseminating knowledge in key areas relevant to artificial intelligence technology. Digital literate workers will be able to properly interface with artificial intelligence systems, interpret outputs, and apply AI-powered technologies in their regular jobs (TSCHANG; ALMIRALL, 2020). Furthermore, equipped to manage challenging client questions and circumstances that AI cannot solve are analyzers and critical thinkers. Emotionally intelligent customer service representatives can solve issues, demonstrate empathy, and manage sensitive situations, all tasks that need a human touch.

By providing their employees with comprehensive training programs that equip them with the necessary information for the future, companies significantly contribute to accomplishing this transformation. Li (2024) argues that businesses that follow reskilling and upskilling programs enhance employee flexibility, thereby improving market competitiveness. These initiatives may require online courses to provide convenient learning opportunities, on-the-job training, and partnerships with academic institutions. Companies that value lifelong learning will be better equipped to prepare their staff members to thrive in an era of artificial intelligence technology.

Moreover, collaboration among governments and industry leaders is needed to create an environment that fosters a higher labor supply. The creation of public-private partnerships to support reskilling programs, providing tax benefits to businesses that engage

in staff development, and increasing access to digital education in underdeveloped areas. Such cooperative projects help narrow the digital divide in Jamaica by ensuring that every employee, regardless of socioeconomic background, possesses the necessary skills for an artificial intelligence-driven economy. Closing this gap will help provide individual employment stability as well as the general economic resilience of developing countries, including the incorporation of artificial intelligence in their companies (AL-EMRAN; GRIFFY-BROWN, 2023).

Ignoring effective reskilling programs may result in increased unemployment, particularly in nations like Jamaica, where fundamental issues such as economic inequality and inadequate access to education define their reality. Ignoring the digital divide can exacerbate social and economic disparities, leaving people unprepared to meet the requirements of an artificial intelligence-driven company. Companies must prioritize workforce development to ensure employee competence in the evolving labor market and to maximize the benefits of AI.

AI and the Future of Work in the Jamaican BPO Industry

Artificial intelligence (AI) technologies, which are revolutionizing customer service and operations, will define jobs in Jamaica's BPO industry going forward. Bradley (2024) contends that artificial intelligence (AI) will transform consumer service delivery by automating repetitive tasks, such as basic searches, and augmenting human capacities in managing more complex, high-value interactions, thereby enhancing consumer service delivery. This shift may significantly improve operational efficiency, reduce expenses, and enhance service quality, thereby providing Jamaican BPO enterprises with a competitive edge on the global stage. Still,

the workforce faces challenges when shifts in artificial intelligence drive operational changes.

Given the growing integration of artificial intelligence, concerns about job displacement in the BPO industry are intensifying. Even if they could improve general efficiency, artificial intelligence technologies lower the demand for labor in fields usually occupied by humans, including fundamental customer service roles. Research by Kess-Momoh *et al*. (2024) emphasizes the importance of companies actively managing this change by investing in human capital to mitigate job displacement and reduce the risk of increased unemployment. Projects that comprise upskilling and reskilling will significantly impact staff members' technical and flexible capabilities, which are essential for thriving in an AI-powered environment. Without these costs, AI adoption may increase, thereby exacerbating Jamaica's economic inequality.

Working together, the Jamaican government and corporate sector may create policies encouraging worker development and guaranteeing a smooth employment future. This implies supporting digital literacy, enabling individuals to access higher-value jobs that cannot be merely mechanized, and providing access to AI-related skill development. As artificial intelligence assumes routine tasks, humans will need to concentrate on areas such as emotional intelligence, critical thinking, and creative problem-solving — skills that remain beyond its capabilities (NG *et al*., 2021). By permitting this shift, Jamaican BPO companies can ensure their workforce remains skilled and competitive, enabling them to work alongside artificial intelligence rather than being replaced by it.

In Jamaica’s BPO sector, artificial intelligence presents opportunities for economic development and innovation, albeit with challenges to worker adaptability. Businesses that effectively utilize artificial intelligence can increase profitability, expand their product offerings, and enhance consumer satisfaction, all of which enable the

industry to thrive in the long term (GEORGIEFF; HYEE, 2022). Presenting Jamaica's BPO company as an AI-ready hub will attract foreign capital and support, helping it gain recognition in the global outsourcing scene. Such expansion can only be achieved if the staff is ready to adapt to technological changes.

The degree of employment in Jamaica's BPO sector will be primarily impacted by how the government and companies manage the integration of artificial intelligence. The industry should mitigate risks associated with AI-induced job displacement by prioritizing staff training and fostering an adaptable culture that fully leverages the potential presented by AI. Apart from determining the success of this shift, technology implementation will also help match human resources to the changing needs of the industry (VON FRANKENBERG; CEO KNIGHTFOX, 2024).

EMPIRICAL REVIEW

BPO Industry in Jamaica

The Business Process Outsourcing (BPO) sector in Jamaica makes a significant contribution to the national economy, employing approximately 36,000 people (JAMAICA OBSERVER, 2019). This workforce is primarily composed of lower-level individuals working in frontline customer service positions, making them especially vulnerable to the effects of artificial intelligence (AI) and related technologies. Lower labor costs, access to necessary production elements, increased productivity, and the availability of a trained workforce all contribute to the appeal of outsourcing in developing countries such as Jamaica. Furthermore, the Jamaican government's

many incentives and support for foreign direct investment help the industry flourish (GREAVES, 2018).

Encouragement of employment and economic stability helps Jamaica's BPO sector tremendously, benefiting both its people and the economy. However, the nature of jobs in the field is changing as customer support operations increasingly incorporate artificial intelligence technologies such as virtual assistants and chatbots. These AI systems can handle regular customer questions and duties that were previously performed by humans (ANGUS, 2017). While these developments lead to operational efficiency and cost savings, they raise serious questions about the long-term viability of jobs in the sector.

As BPO businesses in Jamaica capitalize on the cost benefits of reduced labor, the rapid incorporation of AI signals a shift toward personnel reductions as a significant way to achieve savings. This tendency requires Jamaican workers to actively seek upskilling and reskilling activities to remain competitive and relevant in an increasingly AI-dominated world. The difficulty lies in balancing the immediate operational benefits of artificial intelligence with the need to invest in human capital, enabling staff to adapt to technological developments without job loss (SHEN; ZHANG, 2024).

Although advancements in technology will generally benefit the Jamaican BPO industry, stakeholders, including businesses, employees, and lawmakers, must work together to establish an environment that encourages continuous education and adaptability. This strategy will not only preserve employment but also enhance industry resilience and the ability to innovate in response to changing market demands.

AI Integration and Economic Impacts on the BPO Sector

The integration of artificial intelligence (AI) into Jamaica's business process outsourcing (BPO) industry is projected to have significant, both positive and negative, economic impacts. By automating labor-intensive tasks, such as data input and handling client questions, AI-powered systems can significantly improve output, thereby reducing operating costs and enhancing efficiency (SUROY, 2024). This increased efficiency will make Jamaica more appealing as a global outsourcing location, as more multinational corporations seeking to cut expenses without compromising the quality of service do business from the island. Moreover, having Jamaica's BPO firm lead the way in AI-driven customer care solutions would help it preserve its overall reputation by managing more duties with fewer errors.

It is challenging to overlook the adverse economic implications of integrating artificial intelligence, particularly in terms of employment. Lower-skilled jobs are quickly becoming automated; the BPO sector's primary application of artificial intelligence may result in job displacement. Automated systems of basic client queries and consistent transactions replace one another by reducing the demand for human labor, resulting in considerable employment losses in some industries (NGUYEN; VO, 2022). This trend may disproportionately impact those without the means to reskill or upskill, hence increasing unemployment and economic inequality in Jamaica. Apart from affecting workers and their families, significant employment losses would impact the entire economy by reducing consumer spending and increasing pressure on social support services.

Integration of artificial intelligence affects the economy in ways other than merely the direct effects on output and employment.

The expansion of artificial intelligence-driven companies in the BPO sector may motivate new economic development domains, including demand for customized services, management solutions, and artificial intelligence maintenance. Sectors such as artificial intelligence system design, data science, and machine learning can offer fresh, more highly skilled jobs. Still, it is crucial to ensure that staff members are ready to seize these new opportunities. While many individuals lose their jobs, a small fraction of the workforce gains; so, the advantages of artificial intelligence integration might be distributed unevenly without notable infrastructure, training, or education costs (KHAN *et al*., 2024).

Policymakers should carefully manage the economic impact of incorporating artificial intelligence into the Jamaican BPO industry. If they hope the country remains competitive in all aspects of outsourcing, they should support technological innovation and artificial intelligence applications. They must design concurrent plans to reduce the adverse effects of automation on employment. Here, we may subsidize businesses by providing training incentives, assisting with education, and offering safety nets for displaced workers. Moreover, policies supporting inclusive development — namely, investments in infrastructure that facilitate AI integration and human development —are exceptionally crucial to ensure that the benefits of artificial intelligence are distributed fairly throughout society (SHEN; ZHANG, 2024).

Although artificial intelligence has significant potential to accelerate economic growth by increasing production and reducing costs, its integration into Jamaica's BPO industry poses substantial challenges, primarily related to employment. Policymakers and corporate leaders must collaborate to ensure that the deployment of artificial intelligence fosters long-term, equitable economic development by striking a balance between the benefits of

technological innovation and the obligation to protect and support workers.

Ganuthula and Balaraman (2025) suggest the exploration of labor market polarization resulting from the growth of AI. By analyzing the areas of high- and mid-skilled jobs, their study reveals that high-skilled functions are growing, whereas mid-skilled jobs, particularly in customer service, are eroding. In Jamaica, within the BPO sector, this phenomenon is threatening to exacerbate income inequality and limit opportunities for upward mobility. The authors propose specific upskilling and policy interventions to prevent socioeconomic fragmentation. The empirical findings from their recent research support the importance of proactive labor policies in AI-related sectors.

Challenges in Implementing AI in Developing Economies

The use of artificial intelligence (AI) in underdeveloped nations, such as Jamaica, presents unique challenges that could hinder the effective integration of AI technology, particularly in the BPO sector. There are foundational issues, such as the pay divide, that must be resolved before a discussion around integrating AI; even if it might improve customer service, productivity, and create new opportunities. According to Kumar *et al*. (2023), one of the most significant challenges is financial constraints, as many businesses cannot afford the initial expenditure required for artificial intelligence infrastructure, hardware, software, and network upgrades. Moreover, the limited resources of underdeveloped nations are further strained by the continuous expenses of maintaining and advancing artificial intelligence systems.

Insufficient infrastructure is another significant obstacle to the use of artificial intelligence. Artificial intelligence systems cannot operate without constant internet connectivity, energy, or technical support, even if these resources are typically scarce or unreliable in underdeveloped areas (AHMED *et al*., 2023). Without a solid digital infrastructure, artificial intelligence systems will be disrupted, therefore limiting their reliability and efficiency. If Jamaican BPO businesses were to integrate artificial intelligence completely, they would need to make significant investments in national infrastructure, including improvements to internet access and electrical stability.

Lack of local knowledge also poses challenges, as artificial intelligence technologies require a specific understanding of data science, machine learning, and artificial system management. Usually stemming from the skills gap in Jamaica and other developing countries, companies often depend on imported knowledge, which can be costly and hinder the opportunity to foster indigenous talent (OLAN *et al*., 2022). This lack of trained individuals highlights the need for training courses that equip a local workforce to guide and experiment with artificial intelligence technology. Integration of artificial intelligence into the BPO industry without a competent workforce lacks long-term viability.

The adoption of artificial intelligence is also hindered by cultural resistance to technical progress. Workers in BPOs, where AI may rapidly replace task-based, repetitive operations, could be concerned that automation and artificial intelligence will lead to significant employment losses (CHENG; LIN; KONG, 2023). This anxiety about the impact of artificial intelligence on work, compounded by the lack of retraining or upskilling activities, exacerbates the shortage of relevant knowledge on these subjects. Resistance to the acceptance of artificial intelligence might develop when employees view new technologies as a danger rather than as a

tool for development. Jamaican BPO businesses must emphasize open communication and show how artificial intelligence can improve rather than replace human labor. Companies should also pay significant attention to fostering a creative culture that inspires staff members to view technological innovations as opportunities for success (MUSAIGWA, 2023).

Jamaican BPO companies must handle the deployment of artificial intelligence under well-planned and phased approaches if they are to overcome these challenges. This implies not only supporting the fundamental infrastructure but also comprehensive training programs that enable every employee, from top executives to the lowest-level staff members, to utilize artificial intelligence effectively. Companies also negotiate laws and programs that support the integration of artificial intelligence, including university alliances that produce local knowledge, training grants, and subsidies for technological investment. Additionally, they engage with government and educational institution policies. Promoting an open and creative culture can also help overcome cultural constraints and ensure that artificial intelligence is viewed favorably (MENNELLA *et al*., 2024).

Ignoring these fundamental problems would cost nations like Jamaica the possible advantages of artificial intelligence. AI can enhance competitiveness within Oryain and externally, provided there is sufficient effort and resource allocation. The World Bank (2025) highlights the concept of digital resilience as a national initiative in response to AI disruption. They provide a report on how to create adaptive infrastructure, workforce agility, and institutional preparedness. In the case of Jamaica, digital resilience encompasses not only technical enhancements but also cultural shifts towards lifelong learning and innovation. The framework introduced by the World Bank serves as a guide for countries seeking to leverage the benefits of AI while safeguarding workplaces and social stability.

Cultural Factors Influencing AI Adoption in Jamaica

Views and acceptance of artificial intelligence (AI) in the workplace depend on cultural impressions of technology. In Jamaica, where employment security is perceived as a significant issue, new technology is often adopted cautiously (KELLY; KAYE; OVIEDO-TRESPALACIOS, 2022). This cultural concern stems from prior experiences with technological developments that have led to significant job losses; many in the Business Process Outsourcing (BPO) sector are hesitant to adopt artificial intelligence integration. Employees are more likely to oppose the implementation of technology, even if it promises to increase efficiency and productivity, if they perceive AI as directly threatening their jobs (YIN; JIANG; NIU, 2024).

Furthermore, the cultural dynamics of Jamaica affect how technology is seen and integrated into daily life events. For example, the emphasis on personal relationships and human involvement in customer service may lead to mistrust of artificial intelligence, thereby depriving the service of the personal touch typically associated with high-quality service (CLARK, 2023). Staff members' cultural propensity for human-centric service delivery might cause them to be cautious of artificial intelligence systems' ability to imitate the empathy and understanding that human agents offer for consumer contacts.

Companies in Jamaica's BPO industry must first understand the cultural context and address employee concerns to utilize artificial intelligence effectively. Establishing channels of contact with colleagues helps reduce resistance and concerns. Companies should be transparent about the goals of artificial intelligence and emphasize that technology should support, rather than replace, their operations. This approach fosters a cooperative workplace, as staff

members feel empowered to adopt technological developments rather than fearing them (HAMILTON, 2023).

Companies should also consider how staff may assist in deploying artificial intelligence. Getting comments and ideas from those who will directly be affected by the changes can help businesses encourage technology curiosity and ownership. Training courses that emphasize the benefits of artificial intelligence, such as simplifying tasks and enabling workers to focus on more challenging and rewarding aspects of their careers, can also help shift public opinion toward a more positive view of technology (YELNE *et al*., 2023).

Ultimately, fostering a creative culture that balances technological innovation with traditional values could be a more effective approach to integrating artificial intelligence. Businesses can mitigate opposition, enhance employee buy-in, and maximize the benefits of artificial intelligence in the Jamaican BPO industry by integrating AI adoption strategies with cultural sensitivity and cultivating a positive work environment. Apart from facilitating integration, this cultural alignment ensures that the workforce is prepared to utilize artificial intelligence technology to enhance their employment prospects and improve service delivery (CIARLI *et al*., 2021).

Cultural views significantly influence the adoption of artificial intelligence technology in the workplace, particularly in Jamaica's BPO industry. Kelly, Kaye, and Oviedo-Trespalacios (2022) assert that cultural mistrust of technology may impede workers' readiness to accept artificial intelligence, particularly because it poses a threat to their career security. Previous incidents in which technological advancements led to job losses have driven opposition to artificial intelligence initiatives, thereby exacerbating society's fear (HTA *et al*., 2023). Conversely, countries that have adopted artificial intelligence (AI), such as Singapore, typically have

cultures that value innovation and flexibility. This comparison highlights a significant challenge Jamaica faces: the successful integration of artificial intelligence requires a society that accepts and cooperates with technology.

The existing corpus of research has been critiqued for focusing on personal beliefs rather than the broader cultural context, which would significantly influence workers' impressions of artificial intelligence. Jamaican businesses should engage employees in discussions about technology adoption, demonstrating openness and education on how artificial intelligence can enhance rather than replace their roles, thereby fostering a more positive view of AI (JANSEN-VAN VUUREN AND ALDERSEY, 2020).

In its report, the United Nations Economic Commission for Latin America and the Caribbean (UN ECLAC, 2025) emphasizes the importance of AI literacy in shaping the perception and preparedness of the workforce. The low general awareness of both the capabilities and the limits of AI promotes resistance and misinformation, the regional survey discovered. Targeted training on AI in the workplace, combined with tailored information for the population, can help demystify AI and foster an atmosphere of informed interaction in Jamaica. The recommendations of the UN ECLAC align with the demands for inclusive digital transformation in the Caribbean.

Regulatory and Ethical Considerations

The increasing use of artificial intelligence (AI) technology in the workforce raises several legal and ethical issues that require appropriate attention. In developing countries like Jamaica, where Business Process Outsourcing (BPO) companies are vital to the

national economy, concerns regarding worker displacement and data privacy are widespread. Businesses are increasingly relying on artificial intelligence to enhance their operations; therefore, solid legislative frameworks are urgently needed to protect the ethical use of these technologies, particularly in areas such as employee monitoring, performance appraisal, and task automation (CHOWDHURY *et al*., 2022).

Artificial intelligence can be invaluable in implementing improved business processes and enhancing efficiency. However, with insufficient ethical restraint, the use of artificial intelligence could perpetuate existing inequality and give rise to inequities in the distribution of value between labour groups. Artificial intelligence systems, for example, when selecting job applicants or assessing employee performance, represent a significant risk of natural biases influencing their judgments. For less developed countries, BPO employees may lack awareness of combating tons of (KHAN *et al*., 2023). These biased AI decision-making systems would further propagate the bias, closing opportunities to poor groups, which is detrimental to equality in society and the economy.

Regulatory bodies must develop policies that foster the principles of inclusivity of artificial intelligence technologies. This also pertains to the development of guidelines on artificial intelligence transparency, and the staff must be aware of the parameters within which decisions using artificial intelligence are made and delivered. Moreover, encouraging fairness in employment processes is crucial to prevent AI systems from disproportionately affecting low-skilled workers. Such laws should highlight diversity and promote measures to safeguard workers' rights while pushing technological innovation (KHAN *et al*., 2024).

Regulatory systems and companies frequently review their artificial intelligence systems to identify and address such biases, thereby fostering responsibility in the application of artificial

intelligence. Establishing independent review boards, for instance, would enable a required check against discriminatory practices by helping to guarantee that artificial intelligence applications are assessed for justice and equity. Including stakeholders, such as workers, industry experts, and legislators, in conversations about the ethical implications of artificial intelligence will help support a more inclusive approach to technology integration (OSASONA *et al*., 2024).

In BPO, where tasks are often automated, employees may perceive artificial intelligence as a threat to their security due to the thorough regulatory constraints. This perspective would heighten existing concerns about job displacement, leading to opposition to artificial intelligence projects and a decline in morale (GERKE; MINSSE; COHEN, 2020). Thus, easing these concerns depends on developing a working culture that values cooperation between human workers and artificial intelligence technology, underpinned by a clear understanding of AI.

Governments and businesses must emphasize ethical standards and regulatory systems as artificial intelligence technology proliferates and becomes increasingly prevalent. Stakeholders can facilitate a fairer integration of artificial intelligence by addressing concerns related to bias, transparency, and justice, thereby ensuring that its benefits are distributed equitably among the workforce and safeguarding employees' rights in an increasingly automated environment (CAMPOS ZABALA, 2023).

Hunton LLP (2025) describes the interplay between AI ethics and employment law, highlighting the legal risks associated with algorithmic bias and opaque decision-making. They note in their report that unless there are considerable legal protections in place, AI systems can end up discriminating against vulnerable workers. In the BPO industry of Jamaica, which is undergoing regulatory changes, this poses a significant risk to fair labor practices. These

claims by the authors support the provisions of transparent auditing of AI, consent procedures with employees, and inclusive algorithm design to maintain workplace equity.

Policy Recommendations for AI Integration in the BPO Sector

Artificial intelligence in Jamaica's BPO sector must operate within appropriate regulatory frameworks, enabling ethical and sustainable practices, while also being complemented by technical innovation within established bounds. Comprehensive upskilling and reskilling initiatives, backed by legislators, should guide projects aimed at improving staff workers' digital literacy, critical thinking, and emotional intelligence. This strategy enables staff to manage artificial intelligence systems effectively and provides them with the necessary capabilities to handle complex issues that AI cannot control (TSCHAH; LEALMIRALL, 2020). Through proactive workforce development, businesses can ensure that employees remain valuable assets within their companies and help them meet changing industry demands.

Apart from training courses, job security assurances are crucial in helping to alleviate concerns about employment loss. Policymakers should prioritize retraining programs and unemployment compensation to provide a stable safety net for those affected by technological advancements. Inspired by a sense of stability and resilience in the workforce, these behaviors can help reduce anxiety and foster a more open attitude toward artificial intelligence integration (TAMERS *et al*., 2020). Employees who feel comfortable and supported are more likely to accept technological innovation and encourage creativity.

Dealing with ethical issues encompasses data privacy, algorithmic bias, and accountability in governance structures for the deployment of artificial intelligence. These models must involve staff members and consumers in discussions regarding artificial intelligence applications, including plans. Through open communication, companies can foster confidence and acceptance, thereby enhancing their perception of intelligence as a tool for expansion and a safeguard against threats to employment stability (2023).

Policies aiming at the acceptance of artificial intelligence should also give inclusivity a high priority. Providing low-income individuals with accessible training opportunities can help close the digital divide and optimize Jamaica's diversified talent pool (AFZAL *et al*., 2023). By ensuring we can support our workforce, we can ultimately reap the benefits.

Lastly, encouraging collaboration among labor groups, business leaders, and government agencies will help to generate efficient and responsive policy measures. Open communication can lead to goals that address the problems of the Jamaican BPO sector, facilitating the exchange of ideas and recommendations. Jamaica may create a balanced regulatory framework that ensures social stability and economic development, while also ensuring that the incorporation of artificial intelligence in BPO companies benefits all stakeholders (LEAL FILHO *et al*., 2024).

Effective legal frameworks that prioritize ethical criteria and worker development can help Jamaica's BPO industry maximize the benefits of artificial intelligence. Emphasizing the importance of extensive reskilling and upskilling programs, Tschang and Almirall's (2021) research reveals that governments should concentrate on improving employees' digital literacy and emotional intelligence. Furthermore, it is challenging to govern the governance of artificial intelligence adequately. These addresses, as highlighted by Goisauf

and Abadía (2022), involve revising regulations to protect workers from biased performance assessments and job displacement resulting from the use of artificial intelligence.

Examining countries that have established proactive artificial intelligence rules reveals a clear distinction: countries like Germany and the United Kingdom have begun to create legislation that supports both worker rights and technological progress. The lack of a comprehensive policy framework in Jamaica poses the risk of aggravating job instability (ERDÉLYI; GOLDSMITH, 2022). Although the ethical implications of artificial intelligence are highly contested, a review of the existing literature reveals that specific policy proposals for developing countries are scarce. Priority one for Jamaica should be inclusive policies that allow for fair development and protection, as well as support the use of intelligence.

Grech (2025) emphasizes the importance of streamlining scientific work into concrete policy frameworks to achieve beneficial effects across the socioeconomic aspects of AI. Through his meta-analysis, we understand that sporadic research work does not necessarily guide comprehensive frameworks, especially in developing economies. In the case of Jamaica, this would translate into academic lessons, such as supporting workforce resilience, the ethical application of AI, and inclusive growth through policies. The willingness to close the research and regulation gap is anchored in Grech's work, especially in areas prone to automation.

AI Impact on Future Employment and Skills Development

The integration of artificial intelligence (AI) is redefining future employment trends, particularly in industries such as Business Process Outsourcing (BPO), where routine tasks are being

mechanized. According to Shen and Zhang (2024), AI-powered technologies increase production and efficiency. Still, they also raise worries about job displacement and the need for workers to advance to more skilled professions.

Tschang and Almirall (2020) suggest that this transition implies a proactive approach to workforce development, with a focus on reskilling initiatives to prepare personnel for the new demands of AI-enhanced roles. However, critics such as Rodgers *et al*. (2022) argue that many reskilling programs are underfunded and unevenly implemented, particularly in emerging nations. This gap highlights a crucial point: while AI can create new job opportunities, it also risks exacerbating existing inequities if access to training and education is not distributed evenly.

In Jamaica, where the BPO sector is a major employer, a lack of comprehensive reskilling programs restricts the workforce's ability to adapt to shifting employment landscapes (SRIVASTAV *et al*., 2019). Many employees in Jamaica's BPO sector face job insecurity as AI tools, such as chatbots and virtual assistants, replace traditional customer support roles. Workers must migrate into professions that require higher-level talents, such as emotional intelligence, creativity, and the ability to manage and comprehend AI system outputs - skills that AI systems, no matter how sophisticated, cannot fully replicate.

The demand for high cognitive and technological abilities is likely to increase, particularly in professions that require extensive human interaction, problem-solving, and empathy. Tschang and Almirall (2020) believe that firms that do not invest in comprehensive reskilling and upskilling programs risk falling behind in an AI-driven economy.

In a rapidly changing technology landscape, organizations that do not prioritize workforce development will struggle to keep

pace, as employees lacking the requisite digital skills will be unable to utilize AI tools effectively. This is especially true in the customer service industry, where AI is already replacing many traditional duties previously handled by human representatives.

However, a fundamental concern remains the digital gap, which exists in many underdeveloped economies, including Jamaica. (UPSKILLING AND RESKILLING: ADDRESSING JAMAICA'S WORKFORCE CHALLENGES, 2024) Jamaica's slow pace of digital skills development limits workers' ability to adapt to AI technologies, exacerbating job insecurity and contributing to a growing skills gap between technologically advanced economies and those with limited digital education infrastructure.

Li (2022) shares this concern, noting that reskilling and upskilling programs in underdeveloped nations are often underfunded and unevenly distributed. Many Jamaican employees may lack access to the necessary training to advance to higher-skilled positions, which increases the risk of job displacement.

A comparative review of global initiatives aiming at closing the digital divide indicates significant disparities in how countries approach reskilling their workforces. In industrialized economies such as Germany and Singapore, government-led initiatives and public-private partnerships have helped to create accessible, comprehensive reskilling programs. Germany's "Digital Pact" and Singapore's "SkillsFuture" initiatives are frequently recognized as successful models for providing workers with the resources and support they need to thrive in a technologically driven job market (ZHONG; JUWAHEER, 2024). These programs emphasize not only technical skills but also lifelong learning, ensuring that workers' abilities are continually updated as AI and other technologies evolve.

Jamaica's strategy for reskilling has been significantly less thorough, with little government investment and no coordinated business efforts to prepare the workforce for AI-driven shifts. The gap in resources dedicated to workforce development between developed and developing countries has contributed to an unequal distribution of AI benefits, with workers in countries such as Jamaica being more likely to be replaced by automation. The digital divide in Jamaica is exacerbated by socioeconomic issues, including disparities in access to technology and quality education, particularly in rural regions (AFZAL *et al*., 2023). These challenges limit workers' capacity to acquire the essential skills to engage meaningfully with AI technologies, leaving them vulnerable to job displacement.

To address these issues, it is essential to propose policy recommendations that can help create an inclusive, AI-ready workforce in Jamaica. First, the government must prioritize investment in digital infrastructure and education, particularly in underserved areas, to ensure that all workers have access to the resources needed to upskill and reskill. This includes expanding internet access, providing affordable or free digital literacy programs, and ensuring that schools and vocational institutions are equipped with the technology necessary to teach AI-related skills. By closing the infrastructure gap, Jamaica can create a foundation upon which a more digitally literate workforce can be built (OUR TODAY, n.d).

Second, the Jamaican government, in partnership with the business sector, should develop targeted reskilling programs designed to equip BPO workers with the skills necessary for AI-powered employment. Public-private partnerships can play a crucial role in developing training programs aligned with industry demands, ensuring that individuals are trained in areas that will make them competitive in an AI-enabled labor market. For example,

collaborations between the government and large BPO firms may sponsor training programs in AI management, customer service innovation, and data interpretation —skills that are becoming increasingly in demand as AI alters the business landscape (MORANDINI *et al*., 2023).

Third, it is critical to foster a culture of lifelong learning that encourages employees to continually update their skills in response to technological changes. According to a study by Consmirall (2020), to thrive in an AI-driven economy, individuals must adopt an ongoing education attitude, viewing reskilling as a continuous process rather than a one-time event. In Jamaica, this can be enabled through flexible learning alternatives, such as online courses, weekend seminars, and micro-credentialing programs, which allow workers to acquire new skills without disrupting their existing employment.

Ultimately, international cooperation can help Jamaica and other developing countries bridge the digital divide. Partnerships with international institutions, such as the World Bank and the United Nations, can give financial and technical assistance in implementing large-scale digital skills projects. Jamaica can also benefit from the experiences of other developing countries, such as India and the Philippines, which have made significant progress in reskilling their BPO workforces for AI integration (BON; SAA-DITTOH; AKKERMA, 2024). By incorporating best practices from these countries, Jamaica can build a more inclusive and future-ready workforce.

While AI has immense potential for enhancing productivity and efficiency in customer service, it also poses significant challenges, particularly in developing economies where the digital gap is greater. To ensure that people have the skills necessary to thrive in an AI-enhanced society, governments, the private sector, and international partners must collaborate to close this gap. In

Jamaica, investing in digital infrastructure, providing accessible reskilling programs, and promoting a culture of lifelong learning are essential steps toward creating an inclusive, AI-ready workforce. Without these programs, the country risks falling behind in the global race to reap the benefits of AI (SINGH; SINGH, 2024).

The research by Pushpakumara and Ahsan (2025) examines the transformation in skill requirements across various industries, including the service sector. A longitudinal study conducted by them recognized that emotional intelligence, digital literacy, and adaptive thinking are increasingly valued over routine tasks. This transformation in the BPO sector in Jamaica implies that job descriptions and training programs will have to change. The authors provide recommendations to future-proof the workforce, minimizing the threat of displacement by enabling vocational programs to incorporate specific soft skills and AI fluency.

The Intersection of AI and Employee Well-being: Psychological and Social Impacts

Artificial The integration of artificial technology, particularly the Business Process Outsourcing (BPO) sector, has far-reaching effects on employee well-being, thereby affecting both the psychological and social aspects of the workforce. Rising stress, worry, and burnout among employees have been connected in several studies to artificial intelligence-induced employment instability. For example, staff in driven environments where automation questions have replaced emotional suffering (2024) were discovered. Likewise, Makarius *et al*. (2020) argue that psychological suffering resulting from ambiguity about how artificial intelligence affects job displacement reduces morale and participation (XU; XUE; ZHAO, 2023), find that employees who

significantly think about job insecurity show worse job satisfaction, less organizational commitment, and a higher likelihood of disengagement, confirming this.

Adopting artificial intelligence has psychological consequences that are not necessarily bad. Some academics believe that focusing on more meaningful and intellectually engaging professions can enhance the quality of being and work through the use of artificial intelligence. Artificial intelligence, as cited by Zirar, Ali and Islam (2023), can enhance human labor by enabling individuals to focus on higher-order tasks, such as creativity, problem-solving, and emotional intelligence, rather than replacing workers through the automation of repetitive, low-skill procedures. Selenko *et al*. (2022) claim that artificial intelligence can boost human work, thereby improving employment possibilities and potentially enhancing job prospects. Parsatisfaction in fields such as supervising and controlling artificial intelligence systems or assessing demanding AI-generated data, employees working in AI-augmented environments may find new opportunities for professional development and skill enhancement.

Close inspection of these opposing points of view reveals the adverse psychological effects of job instability and the opportunities for job satisfaction through employment enrichment. One cannot underestimate the psychological consequences of job relocation. Workers are particularly anxious about losing their employment and jobs due to technology, especially in fields like BPO where automation may replace much mundamany routineonversely, when artificial intelligence is deliberately incorporated to complement rather than replace human workers, it can result in a more fulfilling workplace where individuals pursue intellectually exciting and socially important jobs (RASOOL *et al*., 2021).

One primary concern with the study on self-reporting, which uses data to assess the psychological effects of artificial intelligence

on employee well-being, is its overreliance on self-reporting. A survey by *et al*. (2019), which was biased primarily, relied heavily on existing work. They may either exaggerate potential benefits or their worries, depending on their personal experience with job insecurity or their knowledge of artificial intelligence technology. Moreover, most research overlooks contextual and cultural aspects that could affect workers' opinions on the advantages and disadvantages of embracing artificial intelligence. Reskilling programs are more readily available in more prosperous economies, where workers may be less concerned about the emergence of artificial intelligence, than in poorer nations, where such programs are scarce.

Investigating the psychological and social consequences of artificial intelligence implementation in Jamaica's BPO industry requires this distinction. Especially. Anand *et al*. (2023) assert that sluggish reskilling program implementation in Jamaica leads to high job instability among BPO workers. A lack of training opportunities and institutional support exacerbates job displacement-related concerns, leading to a hostile and demanding workplace that undermines employee welfare. Countries like India and the Philippines, which have invested in comprehensive reskilling programs, have partly mitigated these negative psychological consequences by providing people with pathways to more AI-augmented professions.

Furthermore, one should consider the social consequences of artificial intelligence in the workplace. Artificial intelligence replaces menial tasks and alters the nature of professional social relationships. Some research shows that artificial intelligence can depersonalize workplaces by allowing staff members to connect with machines rather than human colleagues (VARMA; DAWKINGS; CHANUDHURI, 2022). Both are essential for preserving employee morale and reducing stress; this loss of personal connection may

impact social support systems and office friendships. Proponents of artificial intelligence, such as Tschang and Almirall (2020), argue that technology can enhance collaboration by enabling staff workers to participate in more strategic conversations and problem-solving activities that require teamwork and effective communication.

Artificial intelligence has complex and varied psychological and societal consequences, even if it may improve the workplace by enhancing human skills. The polls show that individuals who view artificial intelligence as a threat to job stability differ significantly from those who see technology as a tool for career development. For businesses, especially in underdeveloped countries like Jamaica, the challenge is to manage this transition in a way that minimizes the adverse psychological effects and maximizes the possibilities for genuine employment change (MOSSAVAR-RAHMANI; ZOHIRI, 2024). Artificial intelligence without appropriate reskilling regulations may exacerbate stress and anxiety in the Jamaican BPO sector, where job insecurity is already a significant issue, thereby leading to long-term declines in employee well-being. On the other hand, artificial intelligence may present a more engaged and satisfying workforce with the right human capital investment, thereby promoting both professional and personal development.

According to a report published by the World Economic Forum and LinkedIn (2025), the impact of AI adoption is distributed unequally, with women in customer service being disproportionately affected compared to men, as they are underrepresented in complex work that is not at risk of being replaced by AI. The gendered implications of the BPO industry in Jamaica may exacerbate other social imbalances unless they are addressed in hiring practices for the workforce. The report calls for gender-sensitive reskilling, a leadership pipeline, and equal inclusion in the AI economy.

GAP IN RESEARCH

The Jamaican BPO sector, which contributes significantly to the national economy through employment, is at a technical crossroads. While global narratives emphasize the transformative impact of artificial intelligence (AI) on customer service roles, a significant gap emerges when this discourse is localized to Jamaica, where the integration of AI remains limited. Literature provides substantial insights into the capabilities and implications of AI for job roles and security. Still, it lacks a nuanced, culturally and industrially relevant analysis within the Jamaican context (TRANSFORMING JAMAICA'S BPO INDUSTRY: WHY GSS IS NEEDED IN 2019, 2019).

One crucial area that has yet to be investigated is the anticipatory knowledge and training of customer service professionals in Jamaica's BPO sector for the future adoption of AI technology. The current studies on employee perceptions and adaptation techniques in various global contexts provide a helpful basis. However, Jamaica's unique industrial, cultural, and social features necessitate specific studies to determine how these global results relate to the local context (VON FRANKENBERG, CEO, KNIGHTFOX, 2024).

Although global discussions clarify the possible paths and effects of artificial intelligence integration in customer service, the significance and resonance of these concepts in the Jamaican BPO industry remain unclear. The study's focus is on how global narratives and experiences with AI integration in customer service can be contextualized, adopted, and anticipated in Jamaica's BPO sector (JAMAICA OBSERVER, 2024).

Although artificial intelligence is increasingly prevalent in consumer services and other sectors, there is a lack of understanding

about how new technologies might impact the Jamaican BPO company. Much of the present research focuses on AI's role in developed countries, where regulatory frameworks are more established and workforce changes are supported by robust training programs (KELLY, KAYE; OVIEDO-TRESPALACIOS, 2022). However, the absence of dedicated research in Jamaica leaves essential problems unsolved.

Specifically, there is a lack of evidence on how Jamaican customer service agents perceive AI, how job security concerns influence their desire to use these technologies, and what tactics could offset the adverse effects of automation. Much research on artificial intelligence integration and job security presumes access to reskilling and upskilling programs, which may not be available in developing countries like Jamaica (ZIRAR; AL; I, ISLAM, 2023). This discrepancy underscores the pressing need for targeted research on these topics within the Jamaican context.

Furthermore, even if the Job Insecurity Framework (JIF) and Technology Acceptance Model (TAM) are useful theoretical lenses, they must be considered in the context of Jamaica's specific industrial and economic environment. This contextualization would enable a better understanding of how the deployment of artificial intelligence interacts with local labour market realities, employee perspectives, and regulatory hurdles (KRUTOVA *et al*., 2021).

SUMMARY OF LITERATURE REVIEW

The analysis of the literature provides a thorough empirical study of the theoretical and conceptual foundations of employee attitudes, as well as the application of artificial intelligence in corporate BPO domains. One must familiarize oneself with the Job

Insecurity Framework (JIF) and the Technology Acceptance Model (TAM) to understand how implementing technology raises job security issues. Workers, particularly lower-rated employees, experience significant concerns about job loss due to the use of artificial intelligence, such as Chatbots and virtual assistants, in performing routine tasks.

Even if customer service and efficiency have improved, artificial intelligence has raised questions about employment. Literature covers the probable hazards related mainly to work in a BPO organization, as well as the advantages, including higher productivity. Dealing with the issue requires adherence to ethical guidelines, legislation, and knowledge on how to integrate artificial intelligence effectively into the workplace.

Furthermore, a notable disparity in the literature is highlighted by the study on the local influence of artificial intelligence in Jamaica's BPO sector. Although limited studies have focused on Jamaica, global narratives reveal the role of artificial intelligence in industry development. This paper contributes to the existing gap by examining how the integration of AI affects employee perceptions, coping mechanisms, and the potential for job insecurity issues in the Jamaican BPO industry. The contribution will support active discussions on ideas and concepts, as well as practical or pragmatic artificial intelligence solutions for companies.

CHAPTER 2

Methodology

METHODOLOGY

Research methodology provides essential reference points that describe how researchers achieve their study goals. According to Creswell and Creswell (2017), research strategies are guidelines that help researchers choose their implementation methods. Research activities require a methodology for validity testing, relevance assessment, and practical implementation to demonstrate the utility and worth of the findings (MOHAJAN, 2017). The research methodology presentation of this section incorporates insights regarding data acquisition approaches and statistical processing procedures. This framework begins by considering fundamental philosophical aspects, which then inform the research strategy and design, as well as the study population, sampling method, and participant numbers. The data collection procedures and the methods reveal the chosen analytic approaches, incorporating recorded ethical precautions throughout the research duration. Researchers employ detailed research methods to produce trustworthy findings that demonstrate practical relevance to everyday applications.

PHILOSOPHICAL CONSIDERATION

According to Saunders, Lewis, and Thornhill (2009), research philosophy represents the fundamental framework for determining knowledge development and understanding. Doxology involves belief levels about truth (YOON; MOON; LEE, 2012), whereas epistemology focuses on known elements, as Audi (2010) notes. Research philosophy includes all possible philosophical approaches used in research. According to Lehmann (2010), science

maintains its fundamental characteristics as it transforms belief systems into established knowledge, thereby moving from opinion-based doxa through epistemic development to actual knowledge. Ma and Ma (2022) identifies two major research philosophies in Western scientific tradition: The philosophical approaches of positivism and interpretivism exist in the research discipline as scientific philosophy versus anti-positivism. According to the positivist theory, reality possesses fixed properties that can be observed to create objective descriptions of unadjusted phenomena (ALI, 2024). According to interpretivist beliefs about research methods, the complete comprehension of an intervention requires human interpretation. Since this study requires both quantitative and qualitative data, the research investigators will employ a hybrid methodology that combines positivist and interpretivist research philosophies. The selected mixed-methods approach helps researchers investigate the research problem from diverse perspectives.

RESEARCH STRATEGY

Wohlwill (1970) describes a research strategy as the framework that guides the procedural aspects of scientific inquiry. The research framework establishes the path of study investigation by defining operational procedures. Various elements, such as research goals and questions, as well as the foundation of knowledge, the researcher's perspective, and resource constraints, determine which research design to choose, according to Saunders *et al*. (2009). Researchers combined quantitative methods with qualitative approaches to answer their fundamental research questions. Bless and Hingson-Smit (2010) demonstrate that post-positivist researchers choose a quantitative methodology to test

hypotheses and study variable relationships using research questions.

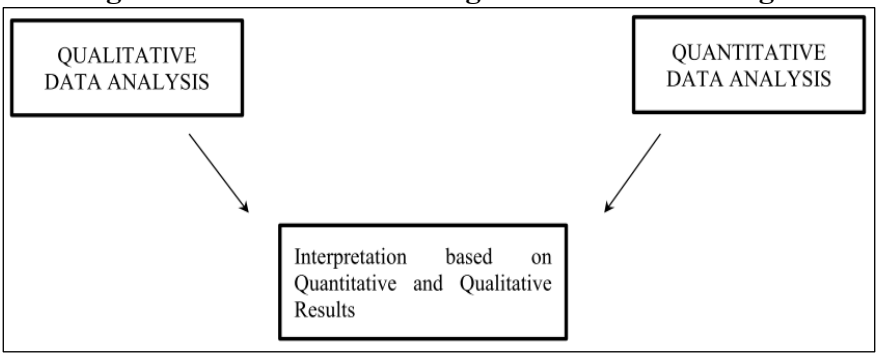
The approach necessitates validity and reliability while demanding the complete elimination of bias to achieve objective results. Quantitative and qualitative strategies were merged due to the scientific nature of hypothesis testing and the independent respondent expression capability, which protected the research from investigator bias. The research philosophy favored this combination of research approaches since Bless and Hingson-Smit (2010) demonstrated favorable results.

RESEARCH DESIGN

Research design represents the strategic blueprint that Wright *et al*. (2016) describe for addressing study questions and managing problems that emerge throughout research projects. Data collection using systematic procedures is the method for studying central research questions. The research design incorporated a deliberate combination of quantitative and qualitative research methods, as described by Creswell and Plano Clark (2017). A convergence of research methods under a single framework enables researchers to overcome individual methodological constraints when using each method separately, as noted by Creswell and Plano Clark (2017). The Concurrent Triangulation Mixed-Methods design deployed by the researcher is one of the most impactful frameworks in mixed-methods research. This research design collects both quantitative and qualitative data simultaneously and then compares these datasets to reveal unified, contrasting, or mixed results between them (CRESWELL; PLANO CLARK, 2017; MORGAN, 1998; TASHAKKORI; TEDDLIE, 2011).

The concurrent triangulation design proved suitable for this research because it comprehensively evaluated variable relationships through quantitative and qualitative data. According to Creswell and Plano Clark (2017), the application of data triangulation techniques enhanced the validity of the study results, providing a more detailed understanding of the phenomenon under investigation.

Figure 3 - Concurrent Triangulation Method Design



Source: Adapted from Creswell; Plano Clark (2017).

The researcher simultaneously gathered and analyzed quantitative and qualitative data elements. During the interpretation phase, the study combined quantitative and qualitative data results, which were then discussed and analyzed. The analysis proceeded along a dual path, utilizing statistical data outputs for each section, which were then supplemented or refined with additional qualitative evidence from interview participants.

STUDY POPULATION

Research requires absolute attention to the proper selection of study participants. The foundation for all research outcomes stems from the population researchers select, thus defining the specific group that serves as the focus of their study. The population is an extensive collection that serves as the source of growth for its sample units, enabling researchers to generalize their findings to this group. According to Stratton (2021), the population refers to every element selected for research investigation. Van Rijnsoever (2024a) views the population as a specific segment of a larger research group, enabling researchers to focus on their intended audience.

The research involved a specific group of customer service agents working at a significant Jamaican BPO company that employed thousands of workers. The researchers selected this participant subset because it directly addressed the research investigation into what drives Jamaica's economic growth. The study focuses on this population, chosen to gain knowledge that applies to similar BPO organizations and broader customer service operations within international business settings.

SAMPLING TECHNIQUE

Research samples consist of representative groups drawn from an original population. Allmark's (2004) classification system includes small observed samples. According to Hossan, Dato' Masor, and Jaharuddin (2023), research sampling allows scientists to collect data from specialized groups within a population. Hossan Dato' Masor and Jaharuddin (2023) define the survey sample as respondents extracted from a larger population.

The research employed purposive and convenience non-probability sampling methodologies to collect the required data, as noted in Kumepkor (2002) and Magnone and Yezierski (2024). Frequent non-probability sampling enables researchers to select participants without relying on random procedures (TANSEY, 2007). Sampling procedures are designed for convenience, and their intended purpose, which is to establish links between sample units and their population members, is often unnecessary (TANSEY, 2007). The approach maintained low expenses, but its effectiveness in generating widespread results was limited.

Additional research methods were employed to reflect accessibility needs and specific BPO workplace demands related to shift operations, which effectively restricts the use of random sampling methods. The research approach of purposive and convenience sampling is suitable for studies that require thorough information from dedicated groups to achieve specific study objectives (PATT, 2015; GOLZAR *et al*., 2022). This study collected both quantitative and qualitative data from customer service employees who have direct experience interacting with AI systems as part of their job responsibilities.

Justification for Sampling Technique

This study employed a non-probability sampling strategy, combining purposive and convenience sampling techniques. This approach was deliberately chosen to balance methodological rigor with the practical realities and constraints of the research environment, namely the operational dynamics of the Jamaican BPO sector and the project's budgetary limitations.

Purposive sampling was essential for targeting individuals who could provide the most valuable and relevant data. Participants were deliberately selected based on a key criterion: their direct, firsthand experience with the implementation of AI systems. This targeted approach ensured that the data collected was rich with the specific, in-depth knowledge necessary to address the research questions, a goal that random sampling could not have guaranteed.

Complementing this, convenience sampling addressed the significant logistical challenges inherent in the BPO industry's 24/7, shift-based schedules, which made random sampling infeasible. By engaging with employees who were accessible and willing to participate, data collection was efficiently executed while critically minimizing disruption to the daily operations of the partner organizations.

In concert, this dual-method approach represents a pragmatic and well-reasoned methodological choice. It allowed for the recruitment of a diverse spectrum of knowledgeable participants within the existing resource constraints, ensuring the study's findings are grounded in relevant, real-world experience.

Sample Size

A total sample size of 350 participants was established for this study to ensure the findings are both representative and statistically significant. The size was strategically determined based on the total employee populations of the participating Business Process Outsourcing (BPO) organizations in Jamaica. This approach ensures that the sample is sufficiently large to allow for meaningful data analysis and to support the generalizability of the results.

Furthermore, the sample of 350 substantially exceeds the baseline threshold of 100 participants suggested by seminal methodologists, such as Creswell (2003), for survey-based research, which further strengthens the study's statistical power. The distribution of this sample was allocated proportionally across each participating organization to ensure that larger and smaller BPOs were equitably represented in the final dataset. Table 1 provides a detailed breakdown of the total population and the corresponding proportional sample size drawn from each organization.

Table 1 - Distribution of Population and Sample Size

Organizations	Estimated Population	Sample Size
Company X	2500	350
Total	**2500**	**350**

Source: Field Survey (2024).

DATA COLLECTION

This study employed a mixed-data research design, integrating both primary and secondary data sources to ensure a comprehensive and robust analysis. This approach allowed for the triangulation of findings, a process that significantly enhances the overall validity and reliability of the research outcomes by corroborating evidence from multiple perspectives.

Secondary data provided the foundational context for the study. An extensive review of academic journals and BPO industry

reports was conducted first. This phase was critical for establishing the existing body of knowledge on AI integration and for informing the development of the primary data collection instruments.

Subsequently, primary data was gathered directly from employees at a major Jamaican BPO company to capture original, context-specific insights. The primary methods included:

1. **Structured Questionnaires**: To collect quantitative data on employee attitudes and perceptions regarding AI;
2. **Focus Group Discussions**: To yield rich qualitative data exploring the nuances of their lived experiences with technological change.

By integrating the broad industry context from secondary sources with specific, on-the-ground perspectives from primary data, the research could address its key questions from multiple angles. This methodological synergy ensures the study's conclusions are not only grounded in the realities of the Jamaican BPO industry but are also situated within the broader academic and industry discourse.

Instrumentation

The collection of primary data for this study was accomplished through two specifically designed research instruments: a structured questionnaire and a series of focus group discussions. This dual-instrument approach was employed to capture both quantitative and qualitative data, enabling a comprehensive analysis of employees' perceptions of AI in the Jamaican BPO sector.

A. Structured Questionnaire

A quantitative survey questionnaire was developed systematically to measure employee perspectives and concerns regarding AI integration. The instrument utilized closed-ended questions, primarily with a Likert-scale format, to facilitate statistical analysis and identify trends within the sample. The questionnaire was segmented into four distinct sections, each with a clear objective:

- **Section A**: **Demographic Profile**: This section collected essential demographic data from participants, including gender, age, marital status, and tenure within the BPO industry, to enable correlational analysis;
- **Section B**: **Perceptions of AI Integration**: This section assessed employee attitudes toward the adoption of AI, focusing on its perceived benefits and impact on their work roles;
- **Section C**: **Job Security and Displacement Concerns:** This section specifically measured the level of anxiety and concern among employees regarding potential job displacement due to AI-driven automation;
- **Section D**: **Perceived Strategic Solutions**: This section gathered data on employee perspectives regarding potential strategies and support mechanisms that could mitigate the challenges of AI implementation.

B. Focus Group Discussions

To complement the quantitative data, focus groups were conducted to gather rich, in-depth qualitative insights into the lived experiences of employees. Three separate focus group sessions were held, each comprising ten participants and lasting between 120 and 150 minutes. This method was chosen for its ability to generate nuanced data through group interaction and discussion.

All sessions were digitally recorded with participants' consent, and the recordings were transcribed verbatim to ensure the fidelity of the data. The resulting transcripts were then subjected to a rigorous thematic analysis to identify recurring patterns, themes, and critical insights that directly address the study's research objectives.

C. Instrument Validation: The Pilot Study

Before full-scale deployment, the questionnaire underwent a pilot study with a small, representative group of BPO employees. Feedback from this pilot was used to refine the instrument, improving the clarity of the questions and ensuring their direct alignment with the research objectives. This validation step was crucial for enhancing the overall reliability and construct validity of the research instrument.

Questionnaire and Focus Group Administration

The primary data collection was executed systematically to ensure a high rate of participation while minimizing disruption to the operational routines of the participating BPO organizations in

Montego Bay. The procedures for administering the questionnaires and conducting the focus groups are detailed below.

A. Questionnaire Administration

Before data collection, an introductory letter was disseminated to all potential participants. This communication outlined the study's objectives, guaranteed the confidentiality of responses, and formally requested voluntary participation. This initial step was crucial for establishing transparency and securing organizational support for the research activities.

The questionnaires were then administered electronically during standard weekdays, a schedule chosen to maximize access to employees across various shifts. To further accommodate the demanding work environment, the following timelines were established:

- **Data Collection Window**: The overall data collection period remained open for six months (January to June), providing ample flexibility for employees to participate;
- **Individual Completion Time**: The questionnaire was designed to be completed in approximately 10 to 20 minutes, allowing employees to respect their time while providing thoughtful consideration of the questions.

B. Focus Group Facilitation

To complement the quantitative data, two focus group sessions were conducted, each composed of ten participants selected

for their relevant experience. The researcher facilitated the sessions in a semi-structured format, guided by key questions designed to explore the research themes in greater depth.

Each session was scheduled to last 120 to 150 minutes. This extended timeframe was deliberately planned to foster a rich, interactive dialogue, allowing participants the necessary time to share detailed perspectives and engage with the experiences of their peers. This method yielded nuanced qualitative data that would have been unattainable through the use of a questionnaire alone.

VALIDITY AND RELIABILITY/TRUSTWORTHINESS

To ensure the rigor of this study, several measures were implemented to establish the validity and reliability of the quantitative data and the trustworthiness of the qualitative findings.

A. Instrument Validity and Pilot Testing

The validity of the survey questionnaire was established through a multi-step process. First, content validity was ensured by developing all instrument items directly from established theoretical constructs and key themes identified in the comprehensive literature review.

Subsequently, a pilot study was conducted with 20 employees from the target BPO population. This pilot test was conducted to assess the instrument's face validity, confirming that

the questions were clear, understandable, and perceived as relevant by the participants. Feedback from this phase led to minor revisions to enhance item clarity and flow, thereby strengthening the final instrument.

B. Internal Consistency Reliability (Quantitative)

The internal consistency of the questionnaire's measurement scales was statistically verified using Cronbach's alpha. This coefficient measures the degree to which items within a scale are interrelated and consistently measure the same underlying construct. Consistent with established standards for social science research (CONNELL, 2011), an alpha coefficient of 0.7 was used as the threshold for acceptable reliability. All scales utilized in this study surpassed this benchmark, indicating a high degree of measurement reliability.

C. Trustworthiness and Reflexivity (Qualitative)

To ensure the trustworthiness of the qualitative data gathered from the focus groups, the researcher engaged in critical reflexivity (BADWALL, 2016). Throughout the data collection and analysis process, a detailed reflexivity journal was maintained. This journal was used to systematically document the researcher's assumptions, methodological choices, and personal perspectives, and to critically reflect on how these factors could potentially influence the

interpretation of participant narratives. This practice is fundamental to enhancing the credibility and transparency of qualitative inquiry.

TOOLS FOR DATA ANALYSIS

The data analysis for this mixed-methods study was conducted systematically, employing distinct techniques for the quantitative and qualitative data sets. The overarching analytical strategy was guided by the principles of mixed-methods research, which advocate for a rigorous and integrated approach to data interpretation (CRESWELL; PLANO CLARK, 2018).

A. Quantitative Data Analysis

The quantitative data collected from the structured questionnaires were analyzed using the Statistical Package for the Social Sciences (SPSS), Version 29. The analysis was conducted in two stages:

- **Descriptive Statistics**: Initially, descriptive statistics were generated to summarize the demographic characteristics of the sample and to provide an overview of key variables. This included calculating frequencies, percentages, means, and standard deviations for employee perceptions and concerns regarding AI;
- **Inferential Statistics**: Subsequently, inferential statistical tests (including Spearman's rank correlation, along with subsequent tests such as the Kruskal-Wallis test) were employed to examine the

relationships between variables. This analysis was crucial for testing the research hypotheses and identifying statistically significant differences in perceptions across various demographic groups.

B. Qualitative Data Analysis

The qualitative data from the focus group transcripts were analyzed using thematic analysis, facilitated by the software QDA Miner Lite. This process was iterative and focused on identifying, analyzing, and reporting patterns (or themes) within the data. The analysis followed several key steps:

I. **Familiarization**: The researcher repeatedly read the verbatim transcripts to become deeply familiar with the content;

II. **Initial Coding**: The textual data was systematically coded, with labels assigned to phrases and sentences that captured a specific concept or idea related to the research questions;

III. **Theme Development**: The initial codes were then collated, categorized, and refined into broader, overarching themes that captured the essence of the participants lived experiences and perspectives on the integration of AI.

This qualitative process was essential for providing rich, contextual detail and explanatory power to the quantitative findings, addressing the “how” and “why” behind the identified statistical trends.

Data Analysis

The analysis and presentation of findings in this mixed-methods study were strategically designed to construct a comprehensive narrative, integrating quantitative and qualitative data to provide a multi-faceted understanding of AI integration in the Jamaican BPO sector.

A. Quantitative Analysis and Presentation

Following data collection, the quantitative data from the questionnaires were cleaned, coded, and processed using SPSS Version 29. The initial analysis involved generating descriptive statistics (e.g., frequencies, means, standard deviations) to summarize the demographic characteristics of the sample and the central tendencies of employee perceptions. These findings are presented clearly and efficiently using summary tables and graphical representations, such as bar charts, to provide an accessible overview of key trends.

Subsequently, inferential statistics were used to explore the relationships between variables and test the research hypotheses. The results of these analyses are presented in standardized tables, providing transparent reporting on the statistical significance of the findings and enabling a clear interpretation of how different factors influence employee attitudes toward AI.

B. Qualitative Analysis and Presentation

The rich textual data from the focus group transcripts were analyzed using thematic analysis, facilitated by QDA Miner Lite.

This process involved an iterative cycle of coding the data to identify recurrent concepts, which were then categorized and developed into broader, overarching themes.

In presenting these qualitative findings, each central theme is introduced and then substantiated with carefully selected, verbatim quotations from the participants. This approach ensures that the nuanced perspectives and "lived experiences" of the employees are authentically conveyed, providing a deep, contextual understanding that goes beyond the numerical data. To supplement the thematic analysis, a basic content analysis was also performed to quantify the frequency of key terms (e.g., "job security", "training"), which helped to validate the prominence of the emergent themes.

C. Integrated Mixed-Methods Interpretation

A core strength of this study lies in the final integration of both data streams. Quantitative results establish the patterns that exist and their statistical significance, while qualitative findings provide a rich context to explain why these patterns occur. For example, a statistical finding indicating high levels of job-security anxiety is explained and humanized by direct quotes from employees articulating the specific sources of their concerns. This synergistic approach, where each data type enriches the other, provides a more holistic, credible, and actionable understanding of the research problem.

ETHICAL CONSIDERATION

This research was conducted in strict adherence to the highest ethical standards, guided by the principles of Texila American

University's Institutional Review Board (IRB) and in full compliance with national legislation, particularly the Jamaica Data Protection Act, 2020. The dignity, rights, and well-being of all participants were paramount throughout every stage of this study.

A. Informed Consent and Voluntary Participation

Central to the ethical protocol was the process of informed consent. Before any research activities commenced, all potential participants were provided with a detailed information sheet and a consent form. This document clearly outlined:

- The purpose and objectives of the research;
- The nature of their voluntary participation and the procedures involved;
- The assurance of confidentiality and data protection measures;
- They have an unequivocal right to withdraw from the study at any time, without prejudice or penalty.

The researcher personally ensured that all questions were addressed before obtaining signed consent, guaranteeing that everyone's decision to participate was entirely voluntary and well-informed.

B. Confidentiality and Data Protection

The protection of participant data was a primary concern. All data handling and storage procedures were designed to comply fully

with the standard outlined in the Jamaica Data Protection Act, 2020. To ensure confidentiality and anonymity:

- All personally identifiable information was removed from the transcripts and datasets, with participants assigned a pseudonym or code;
- All digital data, including audio recordings and transcripts, was encrypted and stored on a password-protected, standalone computer accessible only to the primary researcher.

These rigorous measures were implemented to prevent unauthorized access and safeguard the privacy and confidentiality of all participants.

C. Participant Well-being and Respect

A professional duty of care was maintained to ensure the psychological well-being of all participants. All interactions were conducted with respect for the individuals' perspectives, values, and time. An open channel of communication was maintained throughout the research period, allowing participants to voice any concerns. The research protocol was designed to minimize any potential discomfort or risk, ensuring a positive and respectful research experience for all participants.

LIMITATION

As with any research study, this study faced several limitations that may affect its generalizability and applicability:

- **Focus Group Challenges**: Scheduling focus group meetings proved complicated because BPO company employees have unpredictable shifts. The research reduced its ability to deliver meaningful qualitative insights because researchers had to cut back on the number of original focus group sessions and attempted to schedule them during standard working days off for participants.
- **Scope**: The scope of the research findings is limited because the analysis is confined to one Jamaican company. Future research must collect representative data points distributed across several organizational structures, including different BPO groups. The research findings would benefit from studying various types of BPO firms across large datasets to boost knowledge of both the advantages and limitations of AI integration within these organizations.
- **Time Constraints**: The six-month data collection period limited the depth of analysis available to researchers for their findings. Extending the length of this research project by a year would allow for follow-up conversations and the collection of additional data from study participants. Future studies that establish prolonged data collection timing and utilize digital technological tools for continuous data collection after traditional data gathering methods would benefit the research. The methodology will lead to more potent data-gathering strategies with extended collection times.

The research acknowledges current boundaries while providing essential insights into AI implementations in business process outsourcing organizations. Future research needs to address the weaknesses identified in established studies.

CHAPTER 3

Results

RESULTS

Results have been presented in this chapter through quantitative and qualitative analyses, which is why they are presented in two sequential parts: 1 and 2.

1. QUANTITATIVE RESULTS

The first part of this chapter reports the results of statistical analysis performed to test the hypothesis regarding the perception that customer service agents within the BPO industry have about the integration of AI into their daily operations. It consists of three major sections: reliability of the data collected, descriptive statistics, and inferential statistics. The study tested the following hypothesis:

RELIABILITY OF DATA COLLECTED

Survey Responses

The primary quantitative data for this study were collected via a structured questionnaire designed and administered using Google Forms platform. To ensure the instrument's validity and functionality, a pilot study was conducted, resulting in minor refinements prior to the full-scale launch. Subsequently, the main data collection period commenced on January 20, 2025, and concluded on June 30, 2025. A multi-modal distribution strategy was employed to maximize participant reach within the dynamic BPO environment, involving both the digital dissemination of the survey

link via email and mobile messaging platforms, as well as the display of flyers with QR codes in high-traffic common areas near the company.

Google Forms automatically collated survey responses and then imported them into SPSS Version 29 for statistical analysis. The instrument was administered anonymously to protect participant confidentiality, a design choice that precluded the use of targeted follow-up reminders. During the data screening process, it was confirmed that the survey's forced response setting effectively eliminated instances of missing data. This resulted in a final, valid sample of 334 participants for analysis. With the sample finalized, the instrument's internal consistency was statistically verified. A Cronbach's alpha test yielded an exceptional coefficient of $\alpha = 0.974$, indicating excellent reliability and providing strong evidence that the scale items consistently measured the intended constructs for this study.

OBJECTIVES OF THE STUDY TO EXPLORED

Objective 1*: To understand how Jamaican BPO customer service agents perceive the integration of AI into their work.*

- H1: BPO customer service agents with higher levels of AI knowledge will have more positive perceptions of AI integration in the workplace.
    - Null H1: There is no relationship between BPO customer service agents' levels of AI knowledge and their perceptions of AI integration in the workplace.
- H2: Younger BPO customer service agents will have more positive perceptions of AI integration compared to older agents.

  - Null H2: There is no difference in perceptions of AI integration between younger and older BPO customer service agents.

- H3: BPO customer service agents with more experience in the industry are more likely to have negative perceptions of AI integration due to perceived threats to job security.
  - Null H3: There is no relationship between BPO customer service agents' years of experience in the industry and their perceptions of AI integration.

***Objective 2**: To examine job security concerns among agents as they relate to AI integration and its impact on their roles and employment prospects.*

- H4: Higher levels of perceived AI knowledge will be associated with lower levels of job security concerns among BPO customer service agents.
  - Null H4: There is no relationship between levels of perceived AI knowledge and job security concerns among BPO customer service agents.
- H5: BPO customer service agents who believe AI will significantly change their daily tasks will report higher levels of job security concerns.
  - Null H5: There is no relationship between BPO customer service agents' beliefs about AI changing their daily tasks and their levels of job security concerns.
- H6: BPO customer service agents who believe that AI will lead to new job opportunities in the sector will report lower levels of job security concerns.
  - Null H6: There is no relationship between BPO customer service agents' beliefs about AI leading to new job opportunities and their levels of job security concerns.

***Objective 3**: To identify strategies to be used by BPO companies in Jamaica to address job security concerns arising from AI integration.*

- H7: BPO customer service agents who perceive that their organization will provide adequate training on AI tools and technologies will report lower levels of job security concerns.
    - Null H7: There is no relationship between BPO customer service agents' perceptions of their organization providing adequate AI training and their levels of job security concerns.
- H8: BPO customer service agents who express a desire for a collaborative work environment where AI and human agents work together will report lower levels of job security concerns.
    - Null H8: There is no relationship between BPO customer service agents' desire for a collaborative work environment with AI and their levels of job security concerns.
- H9: BPO customer service agents who believe their organization will provide support and resources during the transition of AI integration will report lower levels of job security concerns.
    - Null H9: There is no relationship between BPO customer service agents' beliefs about organizational support during AI integration and their levels of job security concerns.

DESCRIPTIVE STATISTICS

The primary objective of descriptive statistics is to organize and present the characteristics of sampled populations in a concise and summarized manner. This section reports on the demographic

characteristics of the participants and their responses to the various questions.

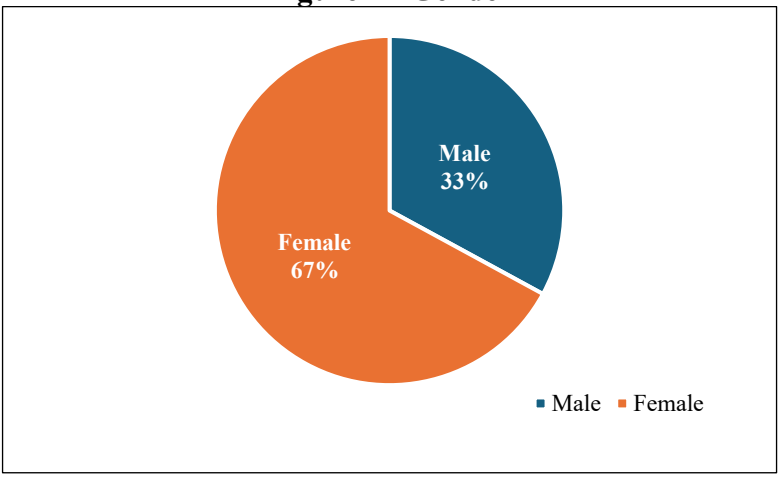
a) Demographics

Table 2 – Gender of participants

Gender	Frequency	%	Valid %	Cumulative %
Female	224	67.1	67.1	67.1
Male	110	32.9	32.9	100.0
Missing	0	0.0		
Total	334	100.0		

Source: Self elaboration.

Figure 4 - Gender



Source: Self elaboration.

Figure 4 shows the distribution of gender in the study. The sample consisted of 67 percent female participants and 33 percent male participants.

Table 3 – Age of participants

	Age at last birthday (Number of Years old)
Valid	334
Missing	0
Mode	33.000
Median	30.000
Mean	30.228
Std. Deviation	6.248

Source: Self elaboration.

Table 3 presents a summary of the age distribution of the study participants. The age distribution was 30.23 years, with a standard deviation of 6.25. The median age distribution was 30; this indicates that approximately half of the participants were 30 years or younger. The most frequent age or mode was 33 years old.

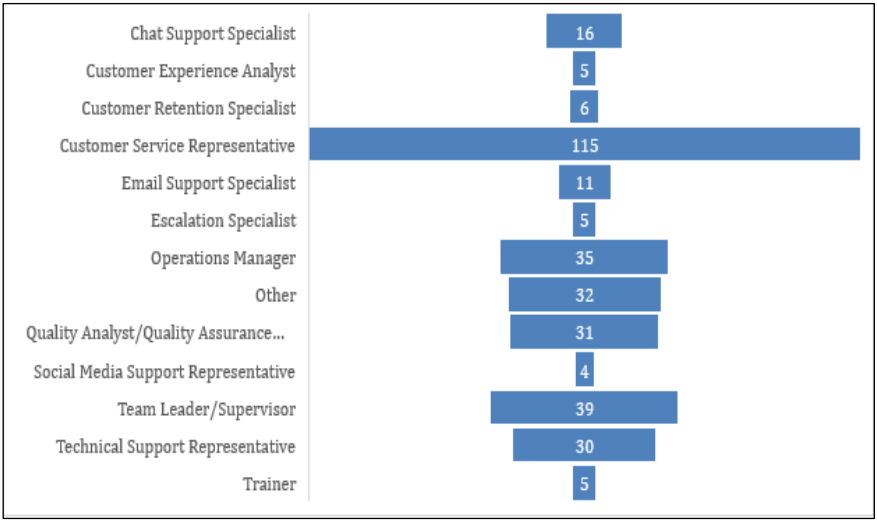
Table 4 shows the educational background of each participant in a summarized format. It shows that over 40 percent of participants reported high school education as their highest level of education, 19.46 percent reported technical/vocational qualifications, and some college credits (16.47 percent) were also common. A small percentage, 2.99 percent, reported having attained postgraduate degrees.

Table 4 - Highest Level of Education Earned by Participants

Highest Education Earned	Frequency	Percent	Valid Percent	Cumulative Percent
No Formal Education	5	1.497	1.497	1.497
High School	140	41.916	41.916	43.413
Associate's degrees	30	8.982	8.982	52.395
BSc.	24	7.186	7.186	59.581
Technical/Vocational	65	19.461	19.461	79.042
Some College Credits	55	16.467	16.467	95.509
Postgraduate	10	2.994	2.994	98.503
Other	5	1.497	1.497	100.000
Missing	0	0.000		
Total	334	100.000		

Source: Self elaboration.

Figure 5 - Job Roles of Participants



Source: Self elaboration.

Figure 5 shows the distribution of job roles among the study participants. The most common roles are Customer Service Representatives (n = 115), followed by Team Leaders/Supervisors (n = 39) and Operations Managers (n = 35). The job roles with the fewest respondents included Customer Experience Analyst (n=50, Escalation Specialist (n=5), and Trainer (n=5).

Table 5 - Years of Experience in BPO

	Years of experience in BPO (E.g., 1 Year)
Valid	334
Missing	0
Mode	5.000
Median	6.000
Mean	6.698
Std. Deviation	4.405

Source: Self elaboration.

Table 5 shows a summary of the distribution of years of experience among participants in the BPO company. The mean experience is 6.70 years of service, with a standard deviation of 4.405. This indicates a moderate variability in the experience levels of participants. Half of the respondents had fewer than 6 years, as noted in the median of 6 years. The most common level of experience is indicated by the mode, which is years.

b) Key variables for inferential statistics

To test whether the hypothesis should be accepted or rejected, a series of statistical tests were employed. Each hypothesis

was tested using a statistical tool and then interpreted to say whether the hypothesis would be accepted or rejected.

H1: AI Knowledge and Perception of AI Integration by Customer Service Agents

Spearman's Rank-Order relation was employed to assess the relationship between two ordinal variables. In this case, AI knowledge and the perception of AI integration into participants' day-to-day operations are taken into consideration. In Spearman's Ranking-Order Correlations, a monotonic relationship means that as one variable increases, the other variable either consistently increases or decreases. In Spearman's rho correlation coefficient calculation, there is a range of -1 to +1, where +1 means there is a strong positive relationship between the variable (as one increases the other will increase), -1 there is a strong negative relationship (as one variable increases the other will decrease), and 0, there is no relationship. The p-value indicates the statistical significance of the correlation. A p-value less than 0.05 typically indicates a statistically significant relationship.

Given the following hypothesis:

- H1: BPO customer service agents with higher levels of AI knowledge will have more positive perceptions of AI integration in the workplace.
    - Null H1: There is no relationship between BPO customer service agents' levels of AI knowledge and their perceptions of AI integration in the workplace.

Table 6 – Spearman's Rank-Order Correlation between AI Knowledge and Perception of AI

Variable		Knowledge total	Perception
1. Knowledge total	N	—	
	Spearman's rho	—	
	p-value	—	
	Lower 95% CI	—	
	Upper 95% CI	—	
2. Perception	N	334	—
	Spearman's rho	0.670	—
	p-value	<.001	—
	Lower 95% CI		—
	Upper 95% CI		—

Source: Self elaboration.

Table 6 shows a Spearman's rho of 0.670, which suggests that there is a strong positive monotonic relationship between "knowledge" and "perception". The p-value is <0.001, indicating that this relationship is statistically significant. That is, as knowledge increases, perception tends to increase. Therefore, the findings aligned with H1: BPO customer service agents with higher levels of AI knowledge will have more positive perceptions of AI integration in the workplace.

H2: Age and Perception of AI Integration by Customer Service Agents

The Kruskal-Wallis test was employed to compare more independent groups in the study and determine if there are statistically significant differences between age groups in perception, considering age ranges. This test was employed to test the following hypothesis:

- H2: Younger BPO customer service agents will have more positive perceptions of AI integration compared to older agents.
  - Null H2: There is no difference in perceptions of AI integration between younger and older BPO customer service agents.

Table 7 - Kruskal-Wallis Test of Participants' Age against Perception of AI Integration

Factor	Statistic	df	p
Age at last birthday (Number of Years old)	108.818	22	<.001

Source: Self elaboration.

Given the statistical calculation in Table 2.6, the result is not complete without the calculation of eta-squared (η^2),

$$\textit{Given } \eta^2 = H / (N - 1), \textit{ where}$$
$$\eta^2 = 108.818/ (334-1)$$
$$\eta^2 = 0.327$$

Table 7 presents the results of a Kruskal-Wallis test comparing participants' age with their perception of AI integration.

The results show that age significantly affects perception ($H = 108.818$, $df = 22$, $p < 0.001$, and $\eta^2 = 0.327$), indicating a significant effect on size perception. The findings of this study align with the alternative hypothesis (H2): Younger BPO customer service agents will have more positive perceptions of AI integration compared to older agents.

H3: Experience and Perception of AI Integration by Customer Service Agents

Spearman's Rank-Order Correlation was employed to examine the relationship between years of experience and perception of AI integration to verify if the results would support the alternative or null hypothesis as listed below:

- H3: BPO customer service agents with more experience in the industry are more likely to have negative perceptions of AI integration due to perceived threats to job security.
  - Null H3: There is no relationship between BPO customer service agents' years of experience in the industry and their perceptions of AI integration.

Table 8 shows Spearman's rho correlation coefficient and associated p-value for the relationship between years of experience in BPO and perception of AI integration. The test result aligns with the null hypothesis.

Table 8 – Spearman's Correlations Between Years of Experience in BPO and Perception of AI Integration

Variable		Years of experience in BPO (E.g., 1 Year)	Perception
1. Years of experience in BPO	n	—	
	Spearman's rho	—	
	p-value	—	
2. Perception	n	334	—
	Spearman's rho	0.177	—
	p-value	0.001	—

Source: Self elaboration.

- Null H3: There is no relationship between BPO customer service agents' years of experience in the industry and their perceptions of AI integration.

H4: AI Knowledge and Job Security

Spearman's Rank-Order Correlation was employed to examine the relationship between agents' knowledge of AI and perceived job security concerns to verify if the results would support the alternative or null hypothesis as listed below:

- H4: Higher levels of perceived AI knowledge will be associated with lower levels of job security concerns among BPO customer service agents.

- Null H4: There is no relationship between levels of perceived AI knowledge and job security concerns among BPO customer service agents.

Table 9 – Spearman's Correlations

Variable		Knowledge total	Job Security
1. Knowledge total	Spearman's rho	—	
	p-value	—	
2. Job Security	Spearman's rho	0.451	—
	p-value	<.001	—

Source: Self elaboration.

Table 9 shows Spearman's rho correlation coefficient and associated p-value for the relationship between perceived AI knowledge and concerns about job security among customer service agents within the BPO company. It shows a moderate positive relationship between AI knowledge and job security concerns. This rejects the alternative hypothesis and accepts the null hypothesis:

- Null H4: There is no relationship between levels of perceived AI knowledge and job security concerns among BPO customer service agents.

H5: Perceived Impact of AI on Tasks and Job Security

Kruskal-Wallis test was employed to examine the relationship between job roles and the perceived impact AI will have on tasks performed in those roles to verify if the results would support the alternative or null hypothesis as listed below:

- H5: BPO customer service agents who believe AI will significantly change their daily tasks will report higher levels of job security concerns.
  - Null H5: There is no relationship between BPO customer service agents' beliefs about AI changing their daily tasks and their levels of job security concerns.

Table 10 - Kruskal-Wallis Test for Impact of AI on Task by Job Roles

Factor	Statistic	df	p
Role at Current Company	38.924	12	<.001

Source: Self elaboration.

Given the statistical calculation in Table 2.9, the result is not complete without the calculation of eta-squared (η^2),

$$\text{Given } \eta^2 = H / (N - 1), \text{ where}$$
$$\eta^2 = 38.924/ (334-1)$$
$$\eta^2 = 0.117$$

Table 10 presents the results of a Kruskal-Wallis test of the impact of AI on tasks across different job roles. The analysis

revealed a significant difference in how AI impacts tasks depending on the job role ($H = 38.924$, $df = 12$, $p < 0.001$). The effect on size ($\eta^2 = 0.117$) indicates that the job role has a medium-level impact on the perceived influence of AI on tasks performed. The findings of this study fail to align with either the alternative or the null hypothesis.

H6: Belief in AI Job Opportunities and Job Security

The Kruskal-Wallis test was employed to examine the relationship between job security and the perception of AI creating more job opportunities in the industry to verify if the results would support the alternative or null hypothesis as listed below:

- H6: BPO customer service agents who believe that AI will lead to new job opportunities in the sector will report lower levels of job security concerns.
  - Null H6: There is no relationship between BPO customer service agents' beliefs about AI leading to new job opportunities and their levels of job security concerns.

Table 11 - Kruskal-Wallis Test for AI opening new job possibilities in BPO customer service

Factor	Statistic	df	p
[AI will not open new job possibilities in BPO customer service]	86.936	5	< .001

Source: Self elaboration.

Given the statistical calculation in Table 2.10, the result is not complete without the calculation of eta-squared (η^2),

$$\text{Given } \eta^2 = H / (N - 1), \text{ where}$$
$$\eta^2 = 86.936/ (334-1)$$
$$\eta^2 = 0.261$$

Table 11 presents the results of the Kruskal-Wallis test comparing AI-generated job opportunities and perceptions of job security. The analysis revealed a significant difference ($H = 86.936$, $df = 5$, $p < 0.001$, $\eta^2 = 0.261$). A considerable effect suggests that the belief about AI's potential to create jobs plays a substantial role in shaping employees' job security concerns within this study. This response favors the alternative hypothesis:

H6: BPO customer service agents who believe that AI will lead to new job opportunities in the sector will report lower levels of job security concerns.

H7: Perceived Training Adequacy and Job Security Concerns

The Kruskal-Wallis test was employed to examine the relationship between adequate training on AI and job security concerns to verify if the results would support the alternative or null hypothesis as listed below:

- H7: BPO customer service agents who perceive that their organization will provide adequate training on AI tools and technologies will report lower levels of job security concerns.
  - Null H7: There is no relationship between BPO customer service agents' perceptions of their organization providing adequate AI training and their levels of job security concerns.

Table 12 - Kruskal-Wallis Test for AI Training and Job Security

Factor	Statistic	df	p
[With the proper training, I can thrive in an AI-integrated BPO environment]	125.085	5	< .001

Source: Self elaboration.

Given the statistical calculation in Table 2.11, the result is not complete without the calculation of eta-squared (η^2),

$$\text{Given } \eta^2 = H / (N - 1), \text{ where}$$
$$\eta^2 = 125.085/ (334-1)$$
$$\eta^2 = 0.376$$

Table 12 shows the Kruskal-Wallis test for the relationship between perceptions of receiving adequate training on AI and job security concerns. The analysis revealed significant differences ($H = 125.085$, $df = 5$, $p < 0.001$, $\eta^2 = 0.376$). This vital effect on size suggests that the belief about training opportunities plays a substantial role in shaping job security concerns. This result aligns

with the alternative hypothesis, H7, that BPO customer service agents who perceive their organization will provide adequate training on AI tools and technologies will report lower levels of job security concerns.

H8: Desire to Collaborate and Job Security

The Kruskal-Wallis test was employed to examine the relationship between customer service agents' desire to collaborate with AI and job security concerns to verify if the results would support the alternative or null hypothesis as listed below:

- H8: BPO customer service agents who express a desire for a collaborative work environment where AI and human agents work together will report lower levels of job security concerns.
  - Null H8: There is no relationship between BPO customer service agents' desire for a collaborative work environment with AI and their levels of job security concerns.

Table 13 - Kruskal-Wallis Test for Desire to Collaborate with AI and Job Security Concerns

Factor	Statistic	df	p
Desire to Collaborate	81.092	5	< .001

Source: Self elaboration.

Given the statistical calculation in Table 2.12, the result is not complete without the calculation of eta-squared (η^2),

Given $\eta^2 = H / (N - 1)$, where
$\eta^2 = 81.092/ (334-1)$
$\eta^2 = 0.244$

Table 13 presents the results of the Kruskal-Wallis test examining the relationship between perceptions of receiving adequate training on AI and job security concerns. The analysis revealed significant differences ($H = 81.092$, $df = 5$, $p < 0.001$, $\eta^2 = 0.244$). This vital effect on size suggests that the desire to collaborate plays a substantial role in shaping job security concerns. This result aligns with the alternative hypothesis: H8: BPO customer service agents who express a desire for a collaborative work environment where AI and human agents work together will report lower levels of job security concerns.

H9: Belief in Organizational Support and Job Security

The Kruskal-Wallis test was employed to examine the relationship between agents who believe the company will provide the proper support and job security concerns to verify if the results would support the alternative or null hypothesis as listed below:

- H9: BPO customer service agents who believe their organization will provide support and resources during the transition of AI integration will report lower levels of job security concerns.
  - Null H9: There is no relationship between BPO customer service agents' beliefs about organizational support during AI integration and their levels of job security concerns.

Table 14 - Kruskal-Wallis Test

Factor	Statistic	df	p
(I am confident that my organization will support me through the transition of AI integration)	121.409	5	< .001

Source: Self elaboration.

Given the statistical calculation in Table 14, the result is not complete without the calculation of eta-squared (η^2),

$$\text{Given } \eta^2 = H / (N - 1), \text{ where}$$
$$\eta^2 = 121.409/ (334-1)$$
$$\eta^2 = 0.365$$

Table 14 shows the Kruskal-Wallis test for the relationship between perceptions of receiving adequate training on AI and job security concerns. The analysis revealed significant differences ($H = 121.409$, $df = 5$, $p < 0.001$, $\eta^2 = 0.365$). This vital effect on size aligns with the alternative hypothesis: H9: BPO customer service agents who believe their organization will provide support and resources during the transition of AI integration will report lower levels of job security concerns.

c) Summary of Hypothesis and Decision

This section presents the summarized results of the analysis conducted to test the hypothesis outlined in Table 15. The findings

from these tests provide valuable insights into the perception of BPO customer agents in Jamaica regarding AI integration and its potential impact on their job security.

Table 15 - Hypothesis Decision for Objective 1

Hypothesis Based on Objectives	Decision
Objective 1: *To understand how Jamaican BPO customer service agents perceive the integration of AI into their work.*	
• **H1:** BPO customer service agents with higher levels of AI knowledge will have more positive perceptions of AI integration in the workplace.	Accept
○ **Null H1:** There is no relationship between BPO customer service agents' levels of AI knowledge and their perceptions of AI integration in the workplace.	Reject
• **H2:** Younger BPO customer service agents will have more positive perceptions of AI integration compared to older agents.	Accept
○ **Null H2:** There is no difference in perceptions of AI integration between younger and older BPO customer service agents.	Reject
• **H3:** BPO customer service agents with more experience in the industry will have more negative perceptions of AI integration due to perceived threats to job security.	Reject
○ **Null H3:** There is no relationship between BPO customer service agents' years of experience in the industry and their perceptions of AI integration.	Accept

Source: Self elaboration.

Table 16 - Hypothesis Decision for Objective 2

Hypothesis Based on Objectives	Decision
***Objective 2**: To examine job security concerns among agents as they relate to AI integration and its impact on their roles and employment prospects.*	
• **H4:** Higher levels of perceived AI knowledge will be associated with lower levels of job security concerns among BPO customer service agents.	Reject
○ **Null H4:** There is no relationship between levels of perceived AI knowledge and job security concerns among BPO customer service agents.	Accept
• **H5:** BPO customer service agents who believe AI will significantly change their daily tasks will report higher levels of job security concerns.	Fail to Reject
○ **Null H5:** There is no relationship between BPO customer service agents' beliefs about AI changing their daily tasks and their levels of job security concerns.	Fail to Reject
• **H6:** BPO customer service agents who believe that AI will lead to new job opportunities in the sector will report lower levels of job security concerns.	Accept
○ **Null H6:** There is no relationship between BPO customer service agents' beliefs about AI leading to new job opportunities and their levels of job security concerns.	Reject

Source: Self elaboration.

Table 17 - Hypothesis Decision for Objective 3

Hypothesis Based on Objectives	Decision
***Objective 3**: To identify strategies to be used by BPO companies in Jamaica to address job security concerns arising from AI integration.*	
• **H7:** BPO customer service agents who perceive that their organization will provide adequate training on AI tools and technologies will report lower levels of job security concerns.	Accept
○ **Null H7:** There is no relationship between BPO customer service agents' perceptions of their organization providing adequate AI training and their levels of job security concerns.	Reject
• **H8:** BPO customer service agents who express a desire for a collaborative work environment where AI and human agents work together will report lower levels of job security concerns.	Accept
○ **Null H8:** There is no relationship between BPO customer service agents' desire for a collaborative work environment with AI and their levels of job security concerns.	Reject
• **H9:** BPO customer service agents who believe their organization will provide support and resources during the transition of AI integration will report lower levels of job security concerns.	Accept
○ **Null H9:** There is no relationship between BPO customer service agents' beliefs about organizational support during AI integration and their levels of job security concerns.	Reject

Source: Self elaboration.

Objective 1*: To understand how Jamaican BPO customer service agents perceive the integration of AI into their work.*

The result of this test strongly supports the hypothesis that agents with higher levels of AI knowledge and younger age are associated with a more positive perception of AI integration. This suggests that individuals who are more familiar with AI and its related technologies are more likely to adopt AI in the workplace. Conversely, the hypothesis that years of industry experience would lead to a more negative perception of AI integration was not supported. This suggests that concerns about job displacement resulting from this technological integration may not be as prevalent among experienced agents as initially anticipated.

Objective 2*: To examine job security concerns among agents as they relate to AI integration and its impact on their roles and employment prospects.*

The analysis for this objective revealed a rather complex relationship between AI knowledge, perceived changes in daily tasks, beliefs about the future of job opportunities, and concerns about job security. Contrary to these expectations, it was noted that higher levels of perceived knowledge were not associated with lower levels of job security concerns. These findings suggest that increased awareness of AI's transformative capabilities may not necessarily remove anxieties about job security. The study failed to find a definitive relationship between the belief that AI will significantly alter daily tasks and concerns about job security. However, the study strongly supports the hypothesis that agents who believe AI will lead to a new job opportunity in the sector report a lower level of job

security concerns. This highlights the importance of emphasizing the potential for AI to create new job roles and career opportunities within the BPO industry.

> ***Objective 3****: To identify strategies to be used by BPO companies in Jamaica to address job security concerns arising from AI integration.*

The analysis and results from the tests conducted to understand this objective consistently demonstrated that a perception of organizational support and a collaborative approach to AI integration are crucial for mitigating job security concerns. The study confirmed that agents who believe that their company will provide training on AI tools and associated technologies express a desire to work in an AI-human enabled environment collaboratively. The organization will provide the necessary support and resources during the AI integration transition, which is associated with lower levels of job security concerns. This highlights the crucial role that BPO companies play in facilitating a seamless and positive transition to an AI-enabled and AI-integrated workplace.

2. QUALITATIVE RESULTS

This qualitative study examined the perception of artificial intelligence integration in customer service operations, with a focus on job security concerns among customer service agents in Jamaican business process outsourcing companies. The data for this study were collected through focus group sessions that were conducted

with employees from Company X. The study aimed at achieving the following objectives:

1. To understand how Jamaican BPO customer service agents perceive the integration of AI into their work;
2. To examine job security concerns among agents regarding AI integration and its impact on their roles and employment prospects;
3. To identify strategies to be used by BPO companies in Jamaica to address job security concerns arising from AI integration.

This segment of the results chapter presents the key themes that emerged from the analysis of the focus group responses, offering a deeper understanding of the unique concerns and support needs of the study population.

The qualitative data for this study were sourced from focus group discussions with 30 participants from Company X, a major BPO organization in Montego Bay. This purposively selected sample was intentionally diverse, comprising 12 males and eight females with ages ranging from 21 to 40 years. To ensure a rich, multi-level perspective, participants represented a diverse array of roles, including Customer Service Representatives, Trainers, Operations Managers, Back Office Agents, and Quality Assurance specialists, with professional experience ranging from two to ten years. A detailed demographic breakdown of this sample is provided in Table 18.

Table 18 - Focus Group Demographics

n = 30		MALE (n = 17)	FEMALE (n = 13)	
# of Participants	Gender	Age Range	Role	Years of Experience
10	Male = 4	21 - 25	Customer Service Rep.	2 - 5 yrs
	Female = 6	26 - 30		
2	Female = 2	21 - 25	Trainer	2 yrs
2	Male = 2	36 - 40	Operations Manager	7 - 10 yrs
4	Male = 2	25 - 30	Back Office Agents	2 - 5 yrs
	Female = 2			
3	Male = 3	21 - 25	Client Chat Agent	5 yrs
3	Male = 3	26 - 30	Email Support Agent	3 - 5 yrs
3	Male = 3	26 - 30	Tech Support Agents	5 yrs
3	Female = 3	31 - 35	Quality Assurance Agents	6 yrs

Source: Self elaboration.

Data Analysis Process

The data from these sessions were subjected to a rigorous thematic analysis to identify, analyze, and report patterns within the participant narratives. This process was guided by the six-phase framework established by Braun and Clarke (2006), beginning with data familiarization and moving through systematic coding, theme development, and refinement. An interpretive coding strategy was

employed, where codes were developed based on the underlying meaning of participant statements rather than just their surface-level content. These codes were then systematically categorized and collated across all 30 participants, allowing for the development of overarching themes that captured the essence of their collective experiences. To ensure the trustworthiness of this analysis, methods such as constant comparison and member checking were utilized throughout the process.

Findings

This in-depth qualitative exploration, which addresses the underexplored human dimension of AI integration in the Jamaican BPO sector, yielded a total of 18 distinct themes. These findings are clustered into three primary domains: agent perceptions of AI, concerns regarding job security, and proposed mitigation strategies. The following sections will present a detailed analysis of these themes, beginning with the eight themes related to agent perception, followed by the five concerning job security, and concluding with the five themes focused on actionable mitigation strategies. This structure provides a comprehensive framework for understanding the lived experiences of BPO agents as they navigate the complexities of technological adoption.

> ***Objective 1****: To understand how Jamaican BPO customer service agents perceive the integration of AI into their work (Agent Perception).*

Theme 1: Knowledge and understanding of AI Tools

This data, gathered from the focus group, provides rich insight into how employees perceive the integration of AI and its associated technologies in the workplace. There is a mix of excitement and appreciation among the participants. On one hand, participants see the potential for AI to revolutionize their daily routine, resulting in greater efficiency and effectiveness. This aligns with the Technology Acceptance Model (TAM). Davis (1989) highlights the perceived usability and ease of use of technology, as employees recognize the potential benefits of AI, leading to a greater acceptance of technology. They understand that AI is the future, and they are eager to adapt and learn from it. According to the data, the participants demonstrate a desire for training and upskilling opportunities. They aim to be prepared for this new reality and learn how to utilize these tools to their advantage. This finding aligns with Adam, Wessel, and Benlian (2021), who postulate that managers must facilitate skills development and employee training initiatives to meet the cognitive and emotional needs of staff in an AI-enhanced environment. This will enable and promote human-AI collaboration, enhancing both employee productivity and satisfaction.

However, there is also underlying anxiety about job security. Comments such as “It might take a job” speak volumes about the fear of job displacement. This statement emphasizes the importance of employers being transparent and communicating effectively throughout their AI implementation process. Employees need reassurance that they are valued and that their skills remain relevant in the technological age. According to the Job Insecurity Conceptual Framework (JIF), a contributing factor to the general fear of AI integration is the organizational factor of inadequate communication – this can lead to psychological distress, which can affect overall employee satisfaction at work.

In essence, this theme highlights employees’ awareness of AI technologies and their potential impact on job roles. Supporting the

TAM and JIF model, agent with the proper knowledge and understanding of AI tools can influence their sense of security and their acceptance of AI tools in daily tasks.

Theme 2: Attitudes Towards AI and Change

This theme reveals a complex and multifaceted picture of how Jamaican BPO customer service agents perceive AI in the workplace. While there is underlying knowledge of AI's transformative potential, there are also significant concerns and anxieties about its impact on their job roles and the future of their careers.

A prominent sentiment that came from the data is "inevitability" surrounding AI's integration. Agents recognize that AI is transforming all industries, including the BPO industry. As one participant put it, "AI is going to be very helpful with your day-to-day routines, the direction that the world is going". This statement acknowledges the direction of AI technologies with a hint of appreciation. The prospect of job displacement still looms, with some agents expressing concerns that I will eventually "do what I do in the office." According to Sing and Sing (2024), AI technologies (Chatbots and Robotic RPA) simplify repetitive tasks, which lowers the need for human involvement. These technologies enhance operational efficiency but may raise concerns about job security for frontline workers. According to the JIF, psychological factors should also be considered when examining job security, as this will affect employee satisfaction and technology acceptance.

Despite the anxiety, there is some degree of "optimism" and willingness of agents to adapt. Many agents expressed a desire to learn about AI and acquire the skills to remain relevant in the age of

AI. Statements like "I want to learn about AI tools that are going to do what I do […]. What skills do I need to learn to be successful?" This attitude of proactiveness suggests that with the right training and proper support, agents are open to embracing AI and collaborating with this new technology. Wing *et al*. (2020) assert that a manager's job is to proactively provide the support needed by employees to ensure they are ready for technological transformation. Conversely, according to "Upskilling and Reskilling: Addressing Jamaica's Workforce Challenge" (2024), there will be difficulties in proactively offering training solutions to eager employees due to limited resources, inadequate infrastructure, and the need for government and corporate collaborations to support such workforce development.

The data also revealed a sense of "ambivalence" and uncertainty about the future. Some agents anticipate a decline in human interaction and the potential erosion of essential skills. Some statements like "I envision fewer interactions with customers," "humans will be relying more on computers […]. We will not need to think anymore". These concerns underscore the need for BPO companies to address not only the technical aspects of AI integration but also the potential social and psychological impacts that AI tools will have on employees. The find for this theme aligns with Lee *et al*. (2023), AI generates unemployment, which can lead to decreased morale and work satisfaction since people predict displacement resulting from automation (Morale could be considered an individual factor from JIF (Figure 2). On the other hand, the benefits of AI integration were also highlighted in the literature. Benefits such as improved operational efficiency, the ability to focus on more complex tasks, and the completion of higher-order tasks by humans (SONG *et al*., 2022).

In summary, agents are aware of the transformative nature of AI and its impact on all industries. They are optimistic about how AI

can transform their daily activities, and managers should be proactive in providing training solutions to meet this need. On the other hand, there are concerns about ambivalence and uncertainty about the future – where will AI go and how will this impact different job roles within the BPO sector? There are benefits and challenges to AI that must be considered when implementing AI solutions within the BPO industry.

Theme 3: AI Impact on Work and Tasks

This finding of this theme reveals a complex picture of how BPO employees perceive the rise of AI and its impact on their work. It is worth noting that AI is not merely a technological advancement, but a force that is reshaping the nature of work in this industry.

A striking finding of this theme is the "duality of perspectives" surrounding AI. On the one hand, there is a sense of optimism and acceptance of this technological advancement. Many participants view AI as a valuable tool for effectiveness, efficiency, and productivity. One participant noted, I, I am assuming, is another tool that I would need to learn to become better at my role". This statement was echoed by other participants who also view AI as a tool to streamline tasks and improve accuracy. Another sentiment to support this is "faster response to chants and more accurate information". According to Davis (1989), the TAM model suggests that people accept technology based on its ease of use and usability. The findings of this theme support the notion that employees benefit from using AI tools for their daily tasks. This will help them to manage tasks seamlessly. On the other hand, the JIF (Figure 2) noted that the psychological impact of perceived job displacement is a consequence of technology being accepted into daily tasks.

Employees are concerned about their livelihood, which will affect their overall satisfaction and acceptance of AI technologies.

However, the sense of optimism is intertwined with "significant anxieties" about job security. The prospect of AI automation replacing human tasks is a genuine concern for many respondents. Such fear was articulated in statements like "I see AI automating these tasks" and "I see this replacing my back-office functions". Some respondents even expressed a sense of inevitability about job displacement, particularly one who stated it bluntly. "My role is for sure going". This tension between embracing AI's transformative potential and fearing its consequences highlights the "critical need for proactive change management" within the BP organization. Employees noted that they are seeking leaders to guide them and provide reassurance. One respondent noted, "I need prompts to give me exactly what I need". Another emphasized the importance of company culture and communication, stating, "I need the company to implement an AI policy so that I am clear on how I go about my daily tasks".

Finally, the data also revealed a "spectrum of preparedness" for the AI revolution. Some employees, particularly those with an IT background, have expressed confidence in their ability to adapt to the change. Statements like "I am ready, as I have a degree in IT, and I have been reading about the types of AI that can be used in my job". In contrast, others expressed a lack of knowledge and skill, along with apprehension. Some concerns noted like "I am not ready for the change" and "I have just a few CXC subjects. I am not tech-savvy". This highlights the need for comprehensive training and upskilling programs to empower employees to thrive in an AI-enabled environment. This theme aligns with Wing *et al*. (2020), suggesting that companies should proactively provide training to help alleviate employees' concerns about job insecurity.

Theme 4: Features and Capabilities of AI

One key takeaway is that employees are thinking critically about AI, looking "at it from both a business and a human perspective". This demonstrates a thoughtful approach, recognizing that AI needs to make business sense while also benefiting the people involved.

There is a clear focus on how AI can enhance the customer experience. The quote "we need to look into our delivery to our customers" highlights this. Employees view Aas as a means to enhance service and streamline processes, ultimately benefiting the customer.

However, it is not just about replacing humans with machines. While there is an acknowledgement that AI can "alleviate some of the workload", there is also a strong emphasis on maintaining the "same quality, service". This suggests that employees understand the limitations of AI, recognizing that it cannot fully replicate the human element in customer service.

Furthermore, this brings us to a crucial point: the importance of human connection. Participants express a clear understanding that AI cannot replace everything. They emphasize the need for a "real connection between human and robot", recognizing that "that interaction, that experience cannot be replaced by an AI tool". This highlights the enduring value of human skills, such as empathy, communication, and relationship-building, which are essential for delivering a truly satisfying customer experience.

Theme 5: Human Factors and Behaviour

This theme delves into how BPO employees perceive the interplay between human factors and AI within their industry. It

reveals a complex picture, with employees grappling with the implications of AI for service quality, the need for adaptation, and the enduring value of human skills in a technologically evolving workplace.

One of the most striking findings is a sense of uncertainty about the impact of AI on service quality. The quote "quality service will be given to our consumers, which I honestly believe will not" reflects a degree of skepticism about AI's ability to replicate the human touch in customer interactions fully. This suggests that, while AI may bring efficiency gains, there are concerns about its potential to compromise the personalized service that customers expect.

This uncertainty is coupled with a recognition of the need for human adaptation. Employees acknowledge the imperative to "develop with technology" and "familiarize myself with it". This proactive stance demonstrates a willingness to adapt to change and acquire new skills to remain relevant in an AI-powered workplace. However, there is also a hint of apprehension, as seen in the desire to "familiarize myself with it ahead of time" indicating a need for adequate training and support to navigate this transition.

The data also reveals anxieties about the future of work in the BPO industry. The quote "younger set within the 19, 20s up, we are in the process of maybe, in the future they will not need us because they have a machine for them" highlights concerns about job displacement, particularly for younger generations who are entering a workforce increasingly reliant on AI.

Despite these anxieties, there is a persistent belief in the enduring value of human skills. Participants emphasize that even with AI, "it is still going to require some amount of human elements". This suggests that while AI may automate specific tasks, human qualities like empathy, critical thinking, and complex problem-solving will remain essential in the BPO industry.

Theme 6: AI Safety and Security

This theme dives into the heart of employee anxieties and uncertainties surrounding AI in the BPO workplace. It is a complex mix of acknowledging AI's potential, fearing its impact on job security, and recognizing the urgent need for upskilling and adaptation.

There is a clear sense that AI is seen as a double-edged sword. On the one hand, employees recognize its potential to improve efficiency and enhance the customer experience. We see this in comments like "I think an AI can help to remove this block" and "customers can get real-time answers". They understand that AI can streamline processes, automate tasks, and even manage complex issues, as indicated by the quote. "That is how I see my job changing".

However, this understanding is overshadowed by a significant fear of job displacement. The statement "role will become obsolete" captures this anxiety succinctly. Many employees, especially those with limited formal education ("only have high school qualifications"), worry about becoming irrelevant in an AI-driven workplace. The fear of losing their jobs is palpable, as evidenced by comments such as "if I still have a job", "Jobs in the industry are already not secure", and "the role is no longer needed". A lack of knowledge and understanding about AI further compounds this fear of AI. Employees express a desire to learn and adapt, with statements like "I may need to go learn more", "I need to go get educated", and "Teach me about AI and what it can do". This highlights a crucial need for proactive training and upskilling initiatives from BPO companies to equip their workforce with the necessary skills to navigate the AI revolution.

Interestingly, despite the anxieties, there is also a sense of resilience and acceptance of change. Some employees acknowledge that “change is something that is constant” and “When it comes, I will deal with it”. This suggests an underlying adaptability and a willingness to embrace new challenges.

Theme 7: Benefits and Values of AI

This theme explores how BPO employees perceive the potential benefits and value propositions of AI in their work. It reveals a pragmatic perspective, acknowledging the efficiency gains and cost-saving potential of AI, while also emphasizing the need for adequate training and support to fully realize these benefits.

Employees recognize the potential of AI to optimize operations and improve efficiency. The quote "There are benefits like cost saving, time, and efficiency" encapsulates this understanding. They see AI as a tool that can streamline processes, automate tasks, and contribute to a more productive workplace.

However, this optimism is tempered by a recognition of the challenges associated with AI adoption. The statement “limited cognitive skills, lack of mental clarity” hints at the potential limitations of AI in replicating human intelligence and problem-solving abilities. This suggests that while AI can be a valuable tool, it cannot completely replace human judgment and critical thinking.

Crucially, employees emphasize the importance of training and support in successfully integrating AI into the workplace. The repeated calls for training – “it is on them to train us”, “Training is needed”- underscore the necessity for BPO companies to invest in upskilling their workforce and provide adequate resources to ensure a smooth transition.

Furthermore, employees express a desire for strong leadership and guidance throughout the AI adoption process. The quote “I expect my leaders to be there to answer questions, clarify doubts, and show concern for us who are using the system” highlights the importance of open communication, clear expectations, and a supportive environment that fosters confidence and alleviates anxieties.

Theme 8: Ethical Consideration

This highlights a concerning gap in employee awareness and preparedness regarding the ethical implications of AI in the BPO workplace. The responses reveal a lack of knowledge and a sense of resignation, highlighting the need for greater transparency and moral guidance from BPO companies.

The stark statement “I did not know” speaks volumes about the lack of awareness surrounding ethical considerations related to AI. This suggests that ethical discussions and training may be missing from current AI implementation strategies in BPOs.

Furthermore, the quotes “I would have just to adapt and work with it as best as possible” and “I would have just to adapt and see how this will turn out” reveal a sense of powerlessness and a lack of agency. Employees feel they have little choice but to accept AI and its implications, even if they are unsure of the ethical ramifications. This highlights a potential imbalance of power between employers and employees regarding technological change, underscoring the need for ethical frameworks and guidelines to protect workers’ rights and well-being.

A. Summary of Findings (RO1)

The analysis of the research objective provides insight into how Joe Jamaican customer service agents perceive AI integration. It presents a complex, multifaceted perspective that combines excitement, apprehension, and a desire for understanding and adapting the tool into their daily work lives. The agents' perspectives range from AI being a double-edged sword, with its transformative capabilities being welcome, but also raising concerns about job security. This duality highlights the urgent need for BPOs to address job security concerns proactively and transparently. The human element is another concern as AI might remove skills such as communication, critical thinking, and empathy.

This highlights the need for a balanced approach to AI integration, where technology is used to augment, rather than replace, human capabilities. A call for knowledge and empowerment through training and development with urgency. Agents indicated that they need to be equipped with the tools to survive in the AI age. Finally, navigating ethical ambiguity as it relates to awareness of AI implications. This reveals that BPO companies need to create clear guidelines to support the ethical use of these tools.

Objective 2*: To examine job security concerns among agents regarding AI integration and its impact on their roles and employment prospects (Job Security).*

Theme 9: Job Security and Anxiety

The theme captures a pervasive sense of unease and apprehension among participants regarding the impact of AI on their livelihoods. The quotes reveal a shared belief that AI poses a direct

threat to employment, with technology poised to "take over" and potentially displace human workers. "Technology is going to take over when this comes". This perceived threat triggers a sense of urgency to adapt and secure one's position in the future job market.

The quotes highlight a widespread fear of becoming obsolete in the face of rapid technological advancements. Participants emphasize the need for continuous learning and upskilling to remain competitive". Arm yourself with information, Go to school, get your degree". This suggests a shift towards a paradigm where individuals must constantly adapt and acquire new skills to avoid being left behind by the relentless pace of technological change.

However, the data also reveals a sense of vulnerability and uncertainty, particularly among those with less formal education, as seen in the case of "someone with two CXCs [...]". The perception that AI-driven automation will prioritize cost-cutting "might cost you way, way, on the cheaper end" creates a sense of insecurity and a fear of being deemed expendable. This vulnerability is further compounded by the anticipation of broader societal consequences, including increased crime and social unrest. "We are going to have the thieves...more prostitution". Such anxieties suggest that the perceived threat of AI extends beyond individual job security, potentially impacting the stability and well-being of entire communities.

In summary, the theme reflects a collective apprehension about the future of work in the age of AI. The quotes express a sense of urgency to adapt, a fear of displacement, and a concern about the broader societal implications of widespread technological unemployment. This theme emphasizes the importance of proactive measures to address the challenges and anxieties associated with integrating AI into the workforce, ensuring a just and equitable transition for all.

Theme 10: Impact and Adaptation of AI

The theme reveals a complex and multifaceted understanding of AI's role in the future of work. While acknowledging the potential benefits of AI, the quotes also express concerns about its limitations and the need for careful integration to avoid unintended consequences.

On the one hand, there is an appreciation for AI's problem-solving capabilities. The statement "if AI is not able to solve the issue, then ultimately it is going to come over to us" suggests that AI will be a valuable tool for handling specific tasks, potentially increasing efficiency and productivity. This implies a collaborative model where AI augments human capabilities, allowing individuals to focus on more complex issues that require uniquely human skills.

Furthermore, the quotes highlight the enduring importance of human expertise. The assertion that "they cannot get rid of the human element regardless" underscores the belief that certain human qualities, such as critical thinking, creativity, and emotional intelligence, will remain essential in the workplace. This suggests that AI is not seen as a complete replacement for human workers but rather as a complementary technology that can enhance human performance.

On the other hand, the quotes also reveal a degree of apprehension about the potential for AI to reduce human involvement in specific tasks. The acknowledgement that AI "might reduce" the need for human input suggests a concern about the potential for job displacement or a decrease in the value of human skills in specific areas. This concern reflects a realistic understanding of the disruptive potential of AI and the need for proactive measures to mitigate any negative consequences.

Overall, the theme presents a balanced perspective on the integration of AI into the workplace. It acknowledges the potential benefits of AI while also recognizing the need for careful planning and adaptation to ensure that AI serves to enhance human capabilities rather than diminish them. This balanced perspective underscores the importance of ongoing dialogue and collaboration among stakeholders in navigating the complexities of AI integration and ensuring a future of work that is both productive and equitable.

Theme 11: Skills and Preparedness

The theme encapsulates a complex mix of perspectives on how individuals perceive their readiness for the changes brought about by AI. The quotes reveal a combination of confidence, uncertainty, and a recognition of the enduring importance of unique human skills in the face of technological advancement.

There is an explicit acknowledgement of AI's capabilities and potential benefits. The statement "it is dependable to a certain extent" suggests an acceptance of AI as a valuable tool, particularly in areas where reliability and security are paramount. "There is much security". If you want something very secure, then you can get that", implies a recognition that AI can enhance efficiency and improve certain aspects of work and life.

However, there is also a strong belief in the limitations of AI, particularly in its ability to replicate human connection and emotional intelligence. The emphatic assertion that. "That will never happen" in response to the idea of AI replicating human empathy and sympathy underscores the perceived uniqueness of human emotions and interpersonal skills. This perspective underscores the enduring significance of human relationships and the irreplaceable

value of qualities such as empathy, compassion, and understanding in a world increasingly shaped by technology.

The quotes also reveal a degree of uncertainty about the future and the skills needed to navigate an AI-driven world. The emphasis on the irreplaceable nature of human emotions and the belief that "we would not be needed" if AI could replicate these qualities suggests a potential anxiety about the evolving role of humans in a technologically advanced society. This anxiety reflects the need for individuals to develop and cultivate skills that complement AI, focusing on areas where human capabilities remain superior, such as creativity, critical thinking, and complex problem-solving.

In essence, the theme reflects a nuanced understanding of the challenges and opportunities that AI presents. It highlights the need for individuals to adapt and acquire new skills while recognizing the enduring value of uniquely human qualities in an increasingly automated world. This theme underscores the importance of a holistic approach to education and training that prepares individuals not only for the technical demands of an AI-driven future but also for the interpersonal and emotional complexities of a world where human connection remains essential.

Theme 12: Employee Well-Being and Mental Health

The theme highlights an initiative-taking and adaptive mindset among employees in response to the rise of AI. The quotes reflect an understanding of the need for continuous learning and upskilling to maintain relevance and well-being in the evolving workplace.

There is a clear recognition of the changing skills landscape. The statement "Going to have to get more qualifications" indicates an awareness that traditional skills may not be sufficient in an AI-driven future. This initiative-taking approach to acquiring new qualifications suggests a desire to remain competitive and adaptable in the face of technological disruption.

The quotes also emphasize the importance of specialized knowledge in the field of AI. The recognition that "they are going to need specialists in AI" highlights the growing demand for expertise in this field. This suggests that employees are not only willing to learn new skills but also recognize the value of specializing in areas that are directly relevant to the changing technological landscape.

Furthermore, the quotes reveal a growth mindset and a willingness to embrace lifelong learning. Statements like "I am willing to learn" and "I will learn whatever until that time comes" express a positive attitude towards acquiring new knowledge and skills. This openness to continuous learning is essential for maintaining employee well-being and mental health in a rapidly changing work environment.

The theme also explores the fluidity of career paths in the era of AI. The acknowledgement that "my career progression is fluid at the moment" suggests an understanding that traditional career trajectories may no longer be the norm. This adaptability and openness to new possibilities are crucial for navigating the uncertainties of the future of work.

Overall, the theme reflects an initiative-taking and resilient approach to the challenges posed by AI. Employees express a willingness to adapt, learn, and specialize to maintain their well-being and thrive in an evolving workplace. This positive mindset and commitment to lifelong learning are essential for ensuring a smooth transition into an AI-driven future.

Theme 13: Customer Experience

The theme encapsulates a sense of disillusionment and lowered expectations among consumers. The quote "This has dampened my hopes" suggests that past experiences have led to a decline in optimism and anticipation regarding products or services. This dampened outlook could stem from various factors, including unmet promises, declining quality, or a perceived lack of innovation.

The quote hints at a sense of resignation and acceptance of a less satisfying consumer experience. This could be due to a perceived lack of alternatives or a belief that companies are no longer prioritizing customer satisfaction to the same extent they once did. This sentiment also reflects a broader societal trend of diminishing expectations in various aspects of life.

The theme raises essential questions about the current state of the marketplace and the relationship between businesses and consumers. It suggests that companies need to reevaluate their approach to customer experience and prioritize meeting consumer expectations to rebuild trust and foster a more positive outlook.

B. Summary of Findings (RO2)

The analysis of the themes revealed a complex view presented by customer service agents regarding job security in the BPO sector and the integration of AI. There is widespread anxiety and uncertainty about the lifespan of job roles, particularly those that are lower-order and those held by individuals with lower levels of education.

Anxiety goes beyond the individual but extends to society as it relates to increased criminal activities and a sense of urgency to adapt and acquire new skills. There are mixed views on the impact of AI, as one group acknowledges its transformative capabilities while another group is concerned about the removal of the human element from the process.

There is a growing emphasis on preserving human skills despite the transformative nature of AI. This highlights the importance of preserving the human element in the era of AI. The theme also emphasizes the need for proactive and lifelong learning to remain relevant in the industry, as well as a holistic approach to upskilling and reskilling staff to cultivate a growth mindset. This will ensure a just and equitable transition for all.

***Objective 3**: To identify strategies to be used by BPO companies in Jamaica to address job security concerns arising from AI integration (Mitigation Strategies).*

Theme 14: Learning and Development

The theme highlights a solid understanding that learning and development are key strategies companies can use to help BPO agents prepare for integration. The theme reveals sub-themes of fear of job displacement, need for training and adaptation, uncertainty about the future, potential benefits of AI, and mixed emotions towards AI.

They touch on the fear of job displacement, as participants expressed concerns such as, “AI is basically that it is a computer, it is like robotic, and it is going to take over our jobs”. Concerns about BPO companies replacing human capital were also highlighted.

Quotes like “they are going to say, I do not need heandan […]”, “my job might not be necessary as a supervisor”. All of these, coupled with job security concerns as noted by one participant, “I no longer will feel secure about my job because hours cannot be cut, and jobs will get done faster by AI”. This underscores the fear employees have that their jobs may become obsolete.

One of the most prominent themes is the need for training and adaptation. Workers recognize that AI is transforming their industry, and they must acquire new skills to remain relevant. This sentiment is evident in their calls for “Training on AI tools and how it is going to affect us”. There is an understanding that “there is something completely new there, and you are expected to learn it, quickly adapt to it”. This desire for upskilling extends beyond mere technical know-how, as employees also express the need for a deeper understanding of AI’s implications: “They need to get more detailed as to the purpose of it”. This highlights the importance of comprehensive training programs that not only equip workers with technical skills but also foster a broader understanding of AI’s role in the workplace.

Coupled with this need for training is a pervasive uncertainty about the future. Employees are apprehensive about how AI will reshape their roles and the industry. The quote, “I might have minimal tasks to complete daily”, reflects a fear that AI could significantly reduce their workload, potentially leading to job insecurity. This uncertainty can also manifest as resistance, as seen in the statement, “I am not ready for it”. Others, however, see this as an opportunity to explore new avenues: “I am heading out into something different”, or even “I started positioning myself to bounce from the sector”. This suggests that while some are apprehensive, others are proactively seeking ways to adapt and remain competitive in the changing landscape.

Despite the anxieties, there is also an acknowledgement of the potential benefits of AI. Some employees recognize that AI could lead to positive outcomes, such as reduced workload and decreased stress. This optimism is captured in quotes like, “agents along with supervisors will not be so burnt out at work”, and “it might reduce burnout for the employee”. The potential for AI to “Ease work stress levels” is also highlighted, suggesting that it could improve overall working conditions.

Overall, the responses reveal a mix of emotions towards AI. There is an apparent tension between fear and acceptance, as well as resistance and adaptation. While some express apprehension, “I am not ready for it”, others demonstrate a willingness to embrace the change: “AI is not going anywhere, and we have to embrace it because quite a few call centers start to use AI”. This range of emotions underscores the complexity of navigating technological disruption in the workplace. It emphasizes the importance of open communication, comprehensive training, and support systems to enable employees to navigate this transition successfully.

Theme 15: Adaptation and Change Management

The responses concerning AI adaptation and change management reveal a spectrum of perspectives regarding AI’s role and implications. While some participants express familiarity with the concept “the concept of AI is not new to me” and acknowledge its presence within their industry “We already have versions of AI in the industry”, others indicate uncertainty about its precise definition and potential impact “I am not sure what AI”, “I am not sure of a definition so to speak”. This variation suggests that awareness and understanding of AI are not uniform across the participant group.

Despite varying levels of familiarity, a common thread emerges: a recognition of the ever-evolving technological landscape, with the understanding that "there are always some other technological changes happening". This recognition, combined with the expressed need for further investigation, "I think I need to go maybe do some research on this to see what is happening and its impact", suggests an openness to learning and adaptation. Participants approach AI with a mixture of curiosity and a desire to understand its implications for their work.

These findings portray a nuanced picture of AI adaptation and change management within this specific context. While some participants may already be engaging with AI in their roles, others are at an earlier stage of awareness and exploration. This diversity of perspectives highlights the importance of tailored approaches to AI adoption, ensuring that individuals receive the necessary support and information to navigate this evolving technological landscape effectively.

Theme 16: Communication and Support

The responses regarding communication and support in the context of AI reveal a complex mix of concerns, uncertainties, and a perceived need for adaptation. A significant theme is the potential impact of AI on human connection and empathy in customer service. Participants express concern that AI may lack the "human touch": "AI is a computer and lacks the human connection", "empathy is not something AI can do". This suggests a perceived value in human interaction and emotional intelligence, qualities they believe are essential for adequate customer support.

However, the responses also reveal an acknowledgement of the need to adapt to this evolving technological landscape. Participants express a desire to learn about and understand the potential applications of AI. “I need to learn what is out there and how to use it to get where I want to go”. This suggests a willingness to engage with AI and explore its potential benefits, even while expressing concerns about its limitations.

There is a spectrum of perceived impact, ranging from adapting management approaches, such as “I have to change my approach to management”, to concerns about job displacement, such as “I will have to switch fields”. This range highlights the diverse potential implications of AI across different roles and responsibilities.

Furthermore, concerns about data security and reliability are evident. Nt “If there is a leak in data, customer info could get into the wrong hands and people could get scammed”. “I do not know what to say about the reliability of data coming from AI”. This underscores the importance of addressing ethical and practical considerations alongside the potential benefits of AI implementation.

Overall, these findings offer a multifaceted perspective on the potential role of AI in communication and support. While acknowledging the possible benefits and expressing a willingness to adapt, participants also raise valid concerns about the preservation of human connection, the need for responsible implementation, and the potential impact on job security. This underscores the need for a balanced approach to AI adoption that considers both the technological advancement and the human factors involved in providing effective communication and support.

Theme 17: Career Transition and New Job Roles

The responses related to career transition and new job roles in the context of AI reveal a strong emphasis on training and communication as key factors in navigating potential changes. Participants consistently express the need for comprehensive training to adapt to new tools and technologies. “Train us in what to do”. “Train me on this new tool”. “Training is the best way to go”. This desire for upskilling highlights a proactive approach to career development and a recognition of the importance of acquiring new skills to remain relevant in an evolving workplace.

Furthermore, the responses emphasize the importance of clear and transparent communication from employers regarding the implementation of AI and its potential impact on job roles. “Communicate with all staff members before, during, and after the implementation of these tools”. “Communicate with us throughout the whole process of implementation”. This desire for open dialogue reflects a need for reassurance and a desire to understand how AI might affect their current roles and future career prospects.

Concerns about job displacement are also evident, as seen in statements like “AI is going to displace jobs” and “I am worried about it”. This anxiety underscores the need for proactive measures from employers to mitigate potential negative impacts, such as providing opportunities for reskilling and redeployment, “how we can be placed in new positions to avoid losing our jobs”.

The responses also highlight an employer’s sense of responsibility to support their employees through this transition. Participants express expectations that companies will invest in their workforce and prioritize their well-being. “Commit to not letting go of people," find other ways to keep them”. This suggests a desire for a collaborative approach to AI adoption, where employers and

employees work together to navigate the challenges and opportunities presented by this new technology.

In summary, these findings reveal a complex interplay of anticipation, anxiety, and a desire for proactive measures regarding career transitions and new job roles in the age of AI. The emphasis on training, communication, and responsible employer practices highlights the importance of a human-centered approach to AI implementation, one that prioritizes employee well-being and facilitates a seamless transition into the future of work.

Theme 18: Organizational Responsibility

The responses concerning organizational responsibility in the context of AI reveal a mixed understanding of security implications and the continued need for human oversight. While there is an expressed belief that AI could enhance security, “I think it would be a little bit more secure with the AI than human”, this is immediately juxtaposed with the acknowledgement that AI systems are equally susceptible to vulnerabilities “humans, my computer can be hacked. With the AI, it is just the same”. This suggests that while AI may introduce new security approaches, it does not necessarily eliminate existing risks or create an inherently impenetrable system.

Interestingly, the focus on data security, ty “storing information on your computer”, highlights a key concern surrounding AI implementation. This concern likely stems from the understanding that AI systems often rely on vast amounts of data, raising questions about data protection and responsible handling.

However, the responses also emphasize the continued importance of human involvement, “still need the workforce to say where the information is stored”. This suggests that, despite the

potential of AI, human oversight remains crucial for managing and controlling information, particularly in sensitive areas such as data storage and security.

These findings provide a nuanced understanding of organizational responsibility in the era of AI. While AI might offer new tools and possibilities, it also introduces new challenges and requires careful consideration of ethical and practical implications. Organizations need to adopt a balanced approach that leverages the potential benefits of AI while acknowledging its limitations and ensuring human oversight in critical areas, such as data security and responsible use. This highlights the need for clear guidelines, robust security measures, and ongoing employee training to ensure that AI is implemented responsibly and ethically within the organization.

C. Summary of Findings (RO3)

This study examined employee perspectives on AI integration in Jamaican BPOs, revealing a multifaceted understanding of its implications and a strong desire for mitigation strategies to address concerns about job security. Participants emphasized the need for comprehensive training programs to adapt to AI, acquire new skills, and understand its impact on their roles. A spectrum of AI awareness and understanding highlighted the need for tailored approaches to adoption and support.

Open communication from employers regarding AI implementation plans and potential job impacts emerged as crucial for building trust and facilitating a smooth transition. Employees also expressed a desire for proactive measures to support career transitions and navigate potential new job roles created by AI, including reskilling and redeployment opportunities.

Furthermore, participants emphasized the importance of implementing responsible AI, with a focus on data security, ethical considerations, and human oversight. These findings underscore the need for a human-centered approach to AI integration in Jamaican BPOs, prioritizing employee well-being, continuous learning, and transparent communication to mitigate potential negative impacts and foster a more inclusive and adaptable workforce.

D. Summary of Findings

The following table presents a summary of the findings from the quantitative and qualitative data analysis. The table summarizes the overall conclusions for each objective, along with the related tests and analyses used to achieve the overall goals.

Table 19 - Summary of findings

Objective	Quantitative summary	Qualitative summary	Similarities and differences in results	Meaning per objective
To understand how Jamaican BPO customer service agents perceive the integration of AI into their work.	The study finds that higher AI knowledge and younger age are significantly linked to more positive views of AI integration in the workplace, indicating greater openness to AI adoption among those familiar with the technology and those who grew up with it.	Customer service agents view AI integration with a mix of excitement and apprehension, recognizing its transformative potential while harboring concerns about job security and the erosion of essential human skills.	**Similarities:** Both the quantitative and qualitative data reveal a nuanced perspective on AI integration. There is a mixture of excitement about AI's potential and apprehension about its impact on jobs and the human element in customer service.	While there is a general awareness of both the opportunities and challenges of AI, individual factors such as age and knowledge play a significant role in shaping specific perceptions. BPOs need to consider these individual differences when planning for AI integration.
	Contrary to expectations, years of experience in the industry did not correlate with a negative perception of AI integration, suggesting that concerns about job displacement may be less common among experienced agents than initially thought.	This duality underscores the urgent need for BPOs to proactively address these concerns, emphasizing a balanced approach where AI augments rather than replaces human capabilities.	**Differences:** Quantitative data highlights the explicit influence of AI knowledge and age on perceptions, with younger, more knowledgeable agents being more receptive. Qualitative data delves deeper into specific concerns, such as the potential erosion of human skills, such as communication and empathy.	
	These findings underscore the significance of AI knowledge and generational factors in influencing attitudes toward AI adoption in the workplace.	Furthermore, agents expressed a strong desire for knowledge and empowerment through training and development, highlighting the need for ethical guidelines and support to navigate the		

		evolving landscape of AI in the workplace.		
To examine job security concerns among agents regarding AI integration and its impact on their roles and employment prospects.	There is a complex relationship among AI knowledge, perceived job changes, future opportunities, and job concerns.	Customer service agents in the Jamaican BPO sector express complex views on AI integration and job security, revealing widespread anxiety about the future of low-level roles and the potential for societal consequences.	**Similarities**: Both datasets highlight concerns about job security in the face of AI. The qualitative data emphasizes anxiety about the future of existing roles, while quantitative data show that this employee anxiety is not necessarily tied to years of experience.	Job security concerns are multifaceted and go beyond individual anxieties. BPOs need to address not only the direct impact on employees but also the potential broader societal consequences of AI-driven job displacement.
	Increased AI knowledge did not necessarily reduce anxieties about job security, suggesting that awareness of AI's potential impact may not alleviate concerns about its implications for employment.	Acknowledging the transformative capabilities of AI, many emphasize the importance of preserving human skills and the need for ongoing practice and lifelong learning to adapt and remain relevant in a changing landscape.	**Differences**: The quantitative data reveal a complex relationship among AI knowledge, perceived changes in daily tasks, and concerns about job security. The qualitative data expands on this by highlighting the potential societal impact of job displacement, such as increased crime.	
	While the findings present no definitive link between perceived changes in daily tasks and job security, the study did find that those who believe AI will create new job opportunities reported lower levels of concern.	The results underscore the need for a comprehensive approach to upskilling and reskilling that promotes a growth mindset and ensures a just and equitable introduction for all employees in the context of AI integration.		
	The results underscore the importance of highlighting AI's potential to create new roles and career paths within the BPO industry, thereby mitigating concerns about job security.			
To identify strategies to be used by BPO companies in Jamaica to address job security concerns arising from AI integration.	Perceived organizational support and a collaborative approach to AI integration are crucial for mitigating job security concerns among BPO agents.	The study revealed that Jamaican BPO employees have a complex understanding of AI's implications and a strong desire for support in navigating its integration.	**Similarities**: Both datasets emphasize the importance of organizational support, training, and a collaborative approach to AI integration in mitigating job security concerns.	While organizational support is crucial, it must be comprehensive and multifaceted. BPOs need to go beyond simply expressing support and actively invest in training, communication, and creating a collaborative human-AI work environment.
	Agents who believe their company would provide AI training, support, and resources during the transition reported lower levels of job security concerns, highlighting the importance of a collaborative human-AI work environment.	Employees emphasize the need for comprehensive training, tailored support, and open communication from employers to address concerns about job security and adapt to changing roles.	**Differences**: The quantitative data concern the impact of perceived organizational support on reducing job concerns. The qualitative data provides richer detail on the types of support needed, such as comprehensive training, clear communication, and opportunities for reskilling and career transitions.	
	These findings highlight the crucial role of BPO companies in facilitating a seamless and positive transition to an AI-integrated workplace by providing active support to their employees through training, resource allocation, and fostering a collaborative environment.	These findings underscore the importance of a human-centered approach to AI integration, one that prioritizes employee well-being, continuous learning, and ethical considerations to foster a more inclusive and adaptable workforce.		

Source: Self elaboration.

GENERAL RESEARCH FINDINGS

Jamaican BPO customer service agents view AI integration with a mixture of anticipation and anxiety, recognizing its potential to transform their roles while raising concerns about job security and the need for upskilling and cross-skilling to remain relevant in the AI age. The study also highlights the critical need for BPOs to proactively address these concerns through comprehensive training, transparent communication, and ethical collaboration with AI. By embracing a human-centric approach to AI integration, BPOs can empower human capital to navigate this technological shift and thrive in the future of work.

CHAPTER 4

Discussion

DISCUSSION

This chapter explores research on AI operations in the Jamaican BPO sector. Our evaluative study applies the Technology Acceptance Model (TAM) findings by Davis (1989) for analysis. It provides insights into how AI integrates into businesses and the workforce, along with global ethical guidelines for policy development. The study investigates workforce perceptions of AI technologies and managerial concerns about job security and operational processes within an economy that uses AI (HUANG; RUST, 2018). The chapter concludes with an assessment of the importance and practical usability of current and future roles.

The research examines automated systems in Jamaica's BPO sector, offering international perspective on how countries are adopting artificial intelligence technology. This study identified specific technical aspects of intelligence applications within Jamaican BPO companies. It also reveals differing perceptions of artificial intelligence technology among workers based on age, job role, and level of education. Young professionals with higher education believe that AI delegation tools improve work quality, while entry-level employees without additional skills see this technology as a potential threat to their job security (MAKRIDAKIS, 2017).

The Technology Acceptance Model (TAM) provides insights into how users respond to new technology, emphasizing the need for transparent communication to help people understand system changes (DAVIS, 1989). Research shows that businesses around the world are increasingly implementing AI systems into basic operational tasks. While this trend matches Western surveys, Jamaican society faces challenges with its infrastructure and

education system, which impede equal success (HUANG; RUST, 2018).

INTERPRET FINDINGS

Overview of AI Integration in Jamaican BPOs

Work efficiency improves with technology tools like chatbots and robotic process automation (RPA), which handle routine tasks (MAKRIDAKIS, 2017). AI adoption in Jamaica remains slow due to poor infrastructure and limited awareness of AI technologies, according to Huang and Rust (2018). Global trends toward AI are pushing Jamaican Business Process Outsourcing (BPO) firms to adopt AI tools such as chatbots, RPA, and Machine Learning to update their operations. Nevertheless, Jamaica's AI adoption remains limited due to weak infrastructure and low AI skills within the business sector (HUANG; RUST, 2018).

Jamaica's BPO sector faces both advantages and challenges with the adoption of artificial intelligence technology. AI boosts business productivity by automating customer service. Mak states that using chatbots for standard customer inquiries allows human employees to focus on more complex issues. The deployment of the RPA tool speeds up various maintenance processes and database tasks, resulting in improved operational efficiency.

Jamaica's unique economic position creates challenges for the quick adoption of AI systems. Currently, advanced AI is mainly used in certain business functions, and the absence of training programs and regulatory standards worsens this issue (HUANG; RUST, 2018). Technological progress shows an uneven spread of benefits, with city areas gaining more advantages than remote,

sparsely populated regions, leading to growing gaps between urban and rural areas. Other emerging economies around the world face similar hurdles as Jamaica in deploying AI technology, from which they can also gain. AI has the potential to transform businesses, but it mostly benefits early adopters who often remain out of reach for others. The BPO industry in Jamaica is working to address technological challenges to succeed as a global competitor by leveraging the advantages of AI.

Perception of AI Among BPO Employees

Research findings show that differences in AI perception among employees are mainly due to their age, which is closely linked to their educational level and occupational status. Younger employees, who are better educated, see AI as a productivity tool, while frontline workers with limited formal education view AI as a potential risk to their job stability. Research/> aligns with Davis's (1989) Technology Acceptance Model (TAM) by emphasizing the importance of user evaluations in predicting technology adoption. Workers in Jamaica's BPO companies held conflicting beliefs about AI, shaped by their varying levels of technological familiarity, age, educational background, and job responsibilities. Interviews combined with group discussions revealed a range of employee attitudes from quick acceptance to deep skepticism, highlighting the need for workforce management strategies that address these concerns.

The survey showed that younger employees are eager to learn new skills because they see AI technology as a way to boost their productivity and gain modern expertise. Workers who are older and have limited education tend to see AI systems mainly as threats to their jobs. According to the Job Insecurity Framework (JIF),

customer-facing staff worry about losing their jobs because perceived job uncertainty causes stress and lowers job satisfaction. The workers doing repetitive tasks are more concerned about technology replacing them due to their own beliefs that they lack the skills for advancement and professional growth (SANDERS, 2023).

Different job roles within the organization showed varied opinions about Artificial Intelligence. Technology experts saw AI implementation as a way to boost operational efficiency. Meanwhile, frontline staff focused on potential job displacement, increasing existing concerns. Because of differing employee perceptions, implementing AI requires tailored approaches from organizations that understand their diverse workforce (HUANG; RUST, 2018). BPOs need to develop structured programs that present AI technology as a partner rather than a threat to organizational goals.

The data from focus groups confirmed that workers experienced different effects when using AI technologies. The customer service representatives felt at risk of job termination due to a lack of training resources that would enable them to transition into various positions. The team leader recognized artificial intelligence as a tool that can enhance team success through superior organizational strategies. Access to artificial intelligence training opportunities revealed disparities between workers residing in cities and those working in rural areas. The necessity arises from these differences to create personalized solutions that meet the needs of roles and their work settings (MAKRIDAKIS, 2017).

Job Security Concerns

Job security concerns peaked among staff because automation posed serious risks to their jobs. Job insecurity causes workers to experience mental stress, according to the findings presented by Låstad *et al*. (2021). BPO employees in Jamaica want

better company communication about upcoming technology developments and training to decrease change-related fears. The performance improvement through AI systems has resulted in heightened concerns from workers, as these systems have enhanced both job quality and the potential for termination risk. Workers with limited job skills, who faced high risks of automation, showed the highest degree of job-related anxiety. Employees' job security concerns regarding artificial intelligence are based on three foundational factors: their knowledge of AI systems, their ability to receive training, and their beliefs about employer development programs. Workers experience anxiety when they perceive themselves as unprepared for emerging technologies and when artificial intelligence systems begin to take over their tasks. Workers' observations about perceived job threats match the emotional patterns identified in the Job Insecurity Framework (JIF). The unclear AI system implementation plans among employees heightened job stability-related anxieties, reducing their willingness to accept AI technologies. Companies must clearly outline their AI integration plans and the associated changes in responsibilities to ease employee concerns.

Organizations need to adopt specific proactive strategies to address these issues. A responsible leader should clearly explain to their workforce why they are using artificial intelligence and highlight its benefits. Additionally, organizations must develop training programs that teach employees how to effectively use and understand these technological tools. When companies support their staff through training initiatives that show a commitment to professional growth, they promote job security and cultivate a positive attitude towards AI among their teams (MAKRIDAKIS, 2017).

Trust development in AI systems requires businesses to prioritize employee safety and psychological well-being.

Implementing AI programs involves transparent communication about job changes, which necessitates clear information regarding the adjustment of individual job roles. Companies should introduce accessible reskilling initiatives that specifically address skill gaps while supporting their employees' growth. Additionally, emotional health programs that include stress management workshops and wellness activities help workers cope with uncertainties caused by technological changes. These strategic approaches enable organizations to foster trust in AI systems while preparing their workforce for future transitions (HUANG; RUST, 2018).

Role of Training and Education in AI Acceptance

As employees transition to working alongside AI systems, they need training programs that show them how to integrate and use these systems effectively. According to Huang and Rust (2021), employers must provide adequate training so that their staff sees AI as a helpful tool rather than a threat.

The research indicates that Jamaican BPO workers require enhanced training in AI, as their current foundational knowledge is insufficient. A training program that emphasizes the strengths and limitations of AI systems can improve awareness of AI's potential. Using the Technology Acceptance Model (TAM), employees are more likely to accept and use AI by evaluating how easy it is to operate and how useful it is in practice. According to Davis (1989), employees who understand AI's benefits mainly see it as a tool that helps improve workplace operations.

Instructional training should concentrate on advanced technology platforms, including data analytics programs and other relevant tools. These programs teach employees to adapt, solve

problems, and develop emotional intelligence skills. These preparedness programs prepare staff members to collaborate effectively within joint human-AI teams, helping organizations maintain successful international market positions.

AI's Impact on Job Roles and Career Progression

The adoption of artificial intelligence in Business Process Outsourcing (BPO) markets drives several changes in job roles and trends in professional growth. AI improves operational efficiency after a workforce adjustment that requires updating current skills to match new job demands. Organizations must invest in employee training, as proper preparation helps keep workforce skills current and maintain business competitiveness (HUANG; RUST, 2021).

Jamaica's BPO industry uses AI to automate repetitive data tasks and simple queries, allowing employees to shift to more complex organizational roles. Advanced customer service requires contact center agents to build greater empathy and problem-solving skills during their daily work. Meanwhile, technical staff review AI-generated outputs as part of their routine duties.

Implementing AI creates new job opportunities for professionals who master AI concepts and possess advanced technical skills, giving them a competitive edge in management and specialized roles. Organizations need to offer ongoing learning opportunities to close the skill gap and help all employees develop essential competencies (DAVIS, 1989).

With the advent of the AI era, organizations must develop comprehensive career development strategies. They must determine the skills their workforce will require in the future and create personalized training programs that support employee growth. By

implementing these training initiatives, BPO organizations can help employees gain a deeper understanding of AI, allowing them to perform more efficiently in AI-driven work environments and achieve long-term success.

LINK TO LITERATURE

By analyzing the Technology Acceptance Model (TAM), we gain insights into the factors that influence employee reactions to AI technologies. According to Davis's (1989) research on the Technology Acceptance Model, usability and perceived benefits significantly influence the adoption of technology. Young people who find AI easy to use are more likely to have a stronger intention to implement AI systems in their work environment. Organizations need to develop AI tools that address users' needs, along with providing specialized training, to achieve better and more valuable results.

According to the Job Insecurity Framework (JIF), individuals react emotionally to perceived threats to their employment security. Research data show that frontline workers with minimal education and limited experience in automation technology exhibit increased job-related anxiety. Organizations should openly discuss potential job risks and help staff gain new skills, fostering productive and confident relationships with employees.

THE ROLE OF HUMAN-AI COLLABORATION

Today, the BPO sector relies heavily on the collaboration between human workers and artificial intelligence. AI excels at

handling repetitive tasks involving data. However, staff use creativity, emotional intelligence, and critical thinking to create synergies that enhance customer support and boost operational efficiency and scalability.

Research shows that workers are more willing to accept AI implementations if they see artificial intelligence tools as supplemental resources that improve their workload, rather than as robots intended to replace them. AI's processing capabilities allow human workers to focus on problems that need careful thought and emotional support, as automated routine queries can be managed efficiently (HUANG; RUST, 2021). Dividing organizational roles boosts operational efficiency and increases employee satisfaction because workers feel a greater sense of purpose in their roles.

An organization aiming for successful human-AI collaboration must create an environment that encourages employees to work with AIA instead of seeing it as an adversary. Makridakis (2017) states that organizations can develop unique training programs that teach employees collaborative techniques and essential skills for AI system operation. Organizations that communicate openly about the benefits of AI and their organizational functions tend to have fewer employees worried that automation will eliminate their jobs.

Human-AI collaborations succeed when designers develop user-friendly artificial intelligence systems that meet workforce needs and align with customer requirements. Employer feedback should be continued throughout development, as it helps refine AI tools to meet national standards and improve customer service (LÅSTAD *et al*., 2021). Organizations that focus on collaboration can combine human skills with AI capabilities to create a highly effective workforce dynamic.

AI-based progress at its maximum level requires Jamaica to unite different business sectors into strategic partnerships. Business challenges become tangible through focused research achieved by private sector alliances supported by government funding to develop AI projects (MAKRIDAKIS, 2017). To maximize its global leadership potential in AI development, Jamaica requires AI education initiatives and collective engagement among stakeholders, according to the United Nations' 2025 projection.

CHALLENGES IN HUMAN-AI COLLABORATION

Organizations need solutions to basic problems for human-AI collaboration to work properly. The main goal of AI methods, similar to a fast driver, encourages humans to provide high-quality service through personalized interactions. Systems that use complex technical designs create practical challenges for staff members who rely on key technical skills (LÅSTAD *et al*., 2021). A strong employee resistance exists against AI systems because they reduce the value of work and threaten job security. AI implementation encounters fewer challenges when organizations actively involve workers and develop user-friendly AI software systems, leading to more comfortable work environments (HUANG; RUST, 2021).

ETHICAL IMPLICATIONS OF AI INTEGRATION

The business process outsourcing industry faces many ethical challenges in adopting AI technology, mainly affecting customer information security, job transparency, and how the workforce is treated. As organizations expand their AI uses, they will encounter more ethical issues, making it crucial to build trust between workers and clients. Protecting open-source data creates moral dilemmas that

need careful consideration. To operate efficiently with AI systems, organizations need large amounts of customer data and should have clear policies on data collection, storage, and use. However, doubts about the fairness of AI decisions remain because transparency is necessary. People need full visibility into how AI makes decisions to trust its results (AMDUR, 2024).

Examining the role of AI in work environments requires careful consideration of how employees are treated fairly and ethically. Companies should use AI tools guided by fairness, not bias, when making workforce reductions or providing training to staff. When businesses adopt ethical standards, they fulfill their moral responsibilities and promote their strategic goals. Organizations dedicated to ethical AI practices build trust with employees and customers, which helps ensure the sustainable integration of AI (OLATOYE *et al*., 2024).

Integrating artificial intelligence into business process outsourcing services sparks a debate about the ethical management of personal data, operational procedures, and employee care practices. Companies should address ethical challenges from AI adoption because employee retention and customer trust could otherwise decline.

Data protection of customer information represents the primary ethical dilemma. For proper functionality of AI systems, extensive customer data sets are essential. Organizations require clear guidelines for collecting and managing this data (O'NEIL, 2016). Staff members want secure data systems because they fear unethical use of customer information, so the company needs to use robust data protection systems. Companies must adhere to data protection standards while employing tested risk reduction strategies to safeguard customer data. Workers in our organization express uncertainty about the choice of AI systems. Business partners and customers request an understanding of the decision-making process

of AI systems, especially during critical operations. Users who cannot track AI decision-making processes develop distrust, which hampers the adoption of AI implementation (ANGWIN; LARSON; MATTU; KIRCHNER, 2016). Adopting explainable AI must be an organization's top priority because it enables team members to see how artificial intelligence operates.

Workplaces featuring artificial intelligence features require a comprehensive ethical assessment regarding employer-staff management practices. Launches of AI systems require organizations to prevent dismissing employees unreasonably and avoid service access barriers within training frameworks. Organizations succeed with AI implementation to a greater extent when ethical principles and hospitable workplaces are established to prevent AI pitfalls and establish technology accessibility for everyone. Organizations must address these moral questions to fulfill their obligations and achieve sustainable business success. Organizations that practice ethical artificial intelligence gain employee and customer trust, establishing extended success from their AI systems (VARMA *et al*., 2022).

ORGANIZATIONAL SUPPORT FOR AI TRANSITION

The successful implementation of AI tools depends on organizational backing. Organizations must clearly explain the functionality of AI and provide proper training, along with adequate resources, to encourage workers to adopt AI usage at work. Consistent employee information and clear communication paths build staff confidence in technological solutions. Employees require training that effectively explains how to utilize AI systems in their daily work responsibilities. Leaders must develop training programs that precisely match departmental requirements and address the

varying knowledge levels of all personnel, enabling them to learn the new technology effectively (LEE *et al*., 2023).

The organization must equip employees with comprehensive tools before they undertake tasks related to artificial intelligence solutions. Organization-wide attention to staff well-being fosters positive attitudes towards adopting AI systems, as it makes staff professionals available for system troubleshooting and mentoring, helping workers acquire new technological skills.

A company's AI strategy depends on the direction provided by its leadership. Company leaders should initiate conversations that explain the benefits of AI and demonstrate to staff how it enhances operations. Through leadership-driven motivation, teams will collaborate and exhibit creative thinking, enabling employees to see AI as an opportunity to upgrade their abilities (KOBER, 2025). The success of integrating artificial intelligence within an organization depends heavily on the support it receives from within the organization. Companies that prioritize workplace investment alongside employee training transform their operations into platforms for better acceptance and innovation development.

POLICY AND GOVERNANCE GAPS

Standard training methodologies at business process outsourcing (BPO) companies enable the consistent delivery of quality services and demonstrate staff members' professional capabilities. The rapid advancement of artificial intelligence technology necessitates specialized employee training, making standardization an even more crucial requirement than before. The combined adoption of industry-wide standards enables providers to

build uniform programs based on established AI best practices at national and global levels.

The key to training success requires implementing strong certification standards. These frameworks promote professional AI expertise among staff and help improve industry reputations, leading to smoother transitions within organizations. Well-established certification programs allow staff to use their credentials as they advance in their current roles or pursue positions in related fields within the sector (SHIRI *et al*., 2023).

Validating workforce standards requires a collaborative effort among company leaders, public officials, and education administrators. Educators and experts must work together to create training programs that meet current job market needs. Public officials must implement policies that promote cooperation between industry leaders and educational institutions.

Through collective BPO industry engagement, Jamaica can establish itself as a training hub for workers ready to succeed in global business environments. Implementing uniform standards for BPO training makes Jamaica more appealing to foreign investors, which in turn promotes long-term BPO growth through increased sector competitiveness (LAZZARA *et al*., 2021).

The BPO sector in Jamaica faces unique opportunities along with several market challenges, according to the Jamaica Observer (2022). The Jamaican BPO industry must tackle urgent obstacles, as current AI sector requirements remain unclear. Employees and their teams experience delays due to unregulated AI, as they have to navigate unfamiliar processes while working. The industry suffers from a lack of regulatory oversight, which has raised concerns about job security and data protection due to uncontrolled AI systems. The government must establish comprehensive safety standards to

safeguard employees by enforcing AI practices that meet ethical guidelines.

The lack of standardized AI training and proficiency testing remains the main obstacle in this field. Many organizations do not have a practical framework to teach their staff the essential skills needed to support AI-based procedures. Industries should standardize training procedures to ensure workforce competence and help employees develop fundamental job skills. Public sector authorities and private sector leaders should create guidelines and rules to guide industrial growth (MORANDINI *et al*., 2023). A collaborative approach among lawmakers, business leaders, and educational experts will help create rules that encourage innovation while ensuring employee safety.

The BPO industry needs strong government rules for lasting success. Organizations and their workers need clear guidance to plan their AI implementation, ensuring smooth integration of AI technology.

STANDARDIZATION OF TRAINING PROGRAMS AND CERTIFICATION

Business Process Outsourcing (BPO) organizations require standardized training for their staff to ensure consistent quality performance and professional execution. Standardized employee training has become increasingly crucial for artificial intelligence (AI) technology, particularly as its rapid development necessitates specialized educational programs. The industry-wide implementation of standardized codes helps create cohesive educational programs that connect AI best practices at both the global and regional levels (LI; MEISSNER, 2008). Collaborative

frameworks among organizations enhance overall industry efficiency and workplace productivity.

Strong certification frameworks are crucial for organizational success in training. These frameworks help companies improve workforce expertise in AI while boosting their industry credibility. Empirical evidence comes from BPO industry workers receiving standardized certifications, which make it easier to move between different businesses. Well-established certification systems support professionals by allowing employees to transfer roles within and outside the sector, encouraging ongoing professional development (VAN ASSEN, 2020).

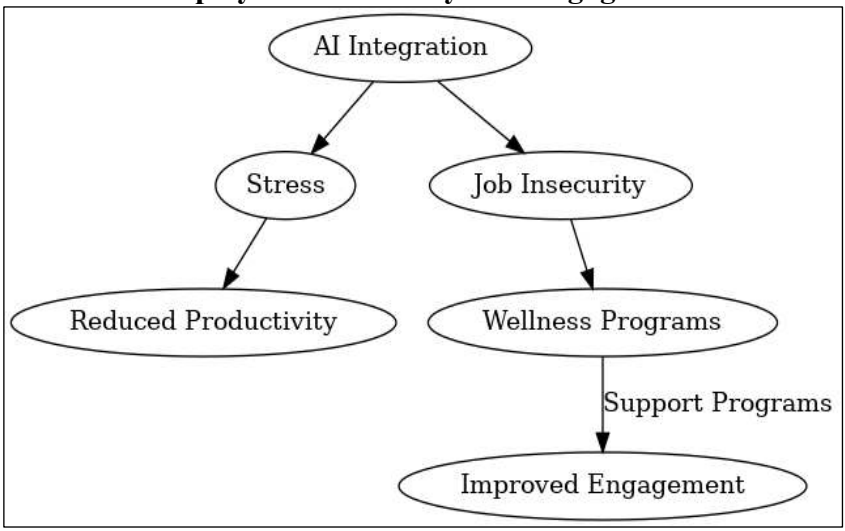
Expert guidance from executive leaders, educational institutions, and government officials will standardize workforce training standards. Businesses should collaborate with educators and industry specialists to develop contemporary training programs that meet workforce needs, ensuring content aligns with emerging industry trends. Public officials should develop plans to support business leaders in forming mutually beneficial partnerships with educational providers. The established policies encourage workplace innovation and employee well-being, helping to maintain a skilled workforce (GARAVAN *et al*., 2020).

Through collaboration in the BPO industry, Jamaica can position itself as a training hub for technical workers who can excel in international business operations. Implementing standardized BPO training systems will help local organizations succeed by enhancing Jamaica's competitive edge in global markets, which can attract more foreign investments. According to the Jamaica Information Service (2022), Jamaican institutions are preparing for the expansion of the BPO industry as it continues to grow, while the demand for AI talent also keeps increasing. Jamaica has the potential to become a leading provider of trained professionals serving the

global BPO industry, thus promoting sustained sector growth and establishing a stronger presence in the tech industry.

IMPACT OF AI ON EMPLOYEE MORALE AND MENTAL HEALTH

Figure 6 - AI Impact on Employee Productivity and Engagement



Source: Self elaboration.

Figure 6 illustrates how higher stress levels contribute to job instability and reduced worker productivity. It emphasizes how healthy programs, and open communication can help address these problems.

IMPLICATIONS OF THE FINDINGS

Comparative Analysis of Findings

The United Nations Jamaica (2021) explains that the UNCCA report describes Jamaica's development opportunities and existing issues. Like other developing countries adopting artificial intelligence (AI), Jamaica faces implementation challenges caused by weak education systems and unreliable infrastructure. Research from developed nations shows responsible AI implementation strategies that can help Jamaica understand practical ways to address difficulties during AI adoption. The key research findings assist Jamaica in overcoming barriers to AI implementation, enabling the country to use AI technology effectively.

Our research provides key insights into AI's impact on Jamaica's business process outsourcing (BPO) sector. It identifies global industry trends, local market challenges, and practical suggestions for BPO growth in Jamaica. According to the University of the West Indies (2023), the global adoption of AI increases operational efficiency and reduces costs. However, Jamaica faces hurdles due to technical limitations and educational issues that impede AI integration. Customized solutions are needed to bridge the gap between AI technology and Jamaican BPO services.

AI perception reveals distinct patterns across various work sectors, yet concerns about job security persist despite their local causes. Jamaican workers are apprehensive about losing their jobs because their country lacks strong employment policies and limited training opportunities (SADEGHI, 2024). Workers in developed economies have access to organized policies and training systems that help them adapt to the advances in artificial intelligence.

According to research by Ramos (2023), local market requirements guide businesses' AI adoption strategies. Jamaican BPO companies must develop tailored plans for AI deployment that cater to the needs of local workers, ensuring successful technology adoption.

Opportunities for BPO Sector Transformation

The addition of AI technology will significantly improve operations in the Jamaican BPO sector. Organizations optimize their processes through AI systems, providing an excellent customer experience while maintaining global competitive advantages. Academic institutions and enterprises pursuing growth strategies develop diverse service lines to implement their plans. AI allows businesses to analyze complex data and customer information to identify new business opportunities, according to Chui *et al*. (2016). The ability of business operations to respond quickly with accurate information to customers' needs leads to higher customer satisfaction.

Artificial intelligence provides advanced training programs for company employees. Companies should invest in activities that improve employee skills in managing tasks involving AI technology. Initiatives that strengthen the workforce and enhance industrial competitiveness equip teams with new skill sets (FREY; OSBORNE, 2017). The transformation of the BPO sector requires a well-organized plan that offers innovative solutions and practical benefits for the workforce. Through AI adoption, organizations can expand their operations and train employees to build more robust industries, creating new economic opportunities.

Implications for Workforce Development

Workplace training is crucial for helping organizations enhance employees' abilities to meet the demands of AI-driven work environments. As artificial intelligence becomes deeply embedded in work tasks, organizations need workers to combine their technical skills with emotional intelligence. They must provide comprehensive training solutions that integrate technical data management tools and programs with training focused on developing emotional intelligence and adaptability (WHITEHEAD, 2022). The combined investment in organizational training and skill development enables employees to succeed alongside AI, ultimately leading to better results.

Educational institutions should collaborate with industry leaders in the BPO sector to create specialized training programs tailored to the BPO industry's needs (LEE, 2019). The first part of these programs should focus on teaching essential AI understanding, ensuring that all employees, from new staff to senior technical personnel, have equal access. Providing organizational education about AI helps employees develop the key skills needed to succeed in AI-driven work environments. Within organizations, mentoring programs that pair experienced workers with AI practitioners support the efficient adoption of AI tools in daily tasks. Businesses that invest in employee training gain significant marketplace advantages, enabling them to adapt to changing industry demands. By making this investment, companies enable their workforce to stay current with new technologies and attain industry leadership. Observational evidence suggests that organizations without proper training tend to fall behind in international competition, whereas those that effectively navigate the modern technological landscape tend to thrive. Long-term business sustainability relies on matching worker skills with evolving job roles.

Organizations must develop an inclusive workforce strategy that provides employees with full access to training resources and career growth opportunities. The structured training system ensures that workers in underserved areas can acquire essential business process skills to succeed in the modern BPO industry. The implemented updates enable organizations to stay competitive in today's rapidly evolving global market.

Global vs. Regional AI Adoption Trends

France Relation reports that the implementation of AI reveals disparities between developed markets and Jamaica's unique conditions, stemming from differences in infrastructure, regulatory systems, and digital capabilities (2024). Advanced nations enjoy easy integration of AI systems because they have top infrastructure, streamlined regulations, and advanced digital skills. These countries maximize the benefits of AI through strategic use, which promotes innovation and accelerates economic growth. Jamaica faces significant challenges with the government. The country has limited access to technology and lacks enough education programs about artificial intelligence. AI integration encounters barriers that create lasting digitization gaps, which are hard to close (ADERIBIGBE *et al*., 2023).

Staff working in advanced economic zones have varying perceptions of artificial intelligence due to Jamaica's substantial disparities in market development. Recruitment algorithms and their unintended effects threaten jobs across Jamaica, despite AI's potential to increase productivity and foster innovation globally. Unclear regulations for AI implementation could cause workplace instability and widen social inequalities. Business decisions in Jamaica need to prioritize selecting intelligent automation solutions

that align with national economic needs, or workforce development programs may face adverse impacts (AVASARALA *et al*., 2020).

Budget-friendly AI tools are becoming more common, leading to a positive shift. Companies of all sizes can access advanced technology through open-source platforms and affordable cloud services, allowing them to adopt cutting-edge solutions without needing large capital investments. However, strong leadership from government officials and business leaders remains essential for effectively using AI technology. Creating AI regulations that protect workers' rights and promote public welfare requires effective collaboration among responsible stakeholders and educational institutions (ZISO *et al*., 2022). The country can benefit from artificial intelligence through joint efforts that protect workers from potential risks during AI implementation.

Sectoral Implications for BPO Growth

The Jamaican BPO sector is at a pivotal point in its growth today. Artificial intelligence systems, trained worldwide through data mining, enable better recognition of customer behavior patterns (BPO SECTOR EXPANDS, 2021). This creates an opportunity to adopt advanced technology without significant capital investment. Despite these opportunities, strong leadership from government officials and business leaders is essential to ensure responsible AI implementation. Effective partnerships between these stakeholders and educational institutions are vital for developing AI regulations that balance innovation with protecting workers and society (ZISO *et al*., 2022). Only through such collaboration can Jamaica fully harness AI's benefits while protecting its workforce from potential risks.

The Jamaican BPO sector is at a critical turning point in its development. By adopting AI technology, companies can explore new market opportunities in three main areas: teaching AI globally, gaining deeper insights through customer data analysis, and more accurately predicting customer behavior patterns (BPO SECTOR EXPANDS, 2021). These expanding areas of BPO activity shape global development trends in the business process outsourcing industry. Jamaica needs to make strategic technology investments to maximize these opportunities.

Jamaican BPO providers must invest in advanced technological infrastructure, secure unlimited high-speed internet, and implement AI-compatible cloud platforms to deploy AI effectively. Businesses should also establish innovative centers where their teams can evaluate and improve AI software applications, thereby identifying best practices for integrating AI into new market segments. Jamaica's strategic focus on AI leadership is expected to bring significant economic benefits, attracting innovative businesses interested in top-tier technological systems (ADERIBIGBE *et al*., 2023).

POLICY IMPLICATIONS FOR EQUITY

Fairness should guide every AI policy decision in Jamaica. The ongoing expansion of AI practices may widen disparities between urban and rural areas, as rural residents face significant technological and digital resource barriers (JAMAICA GLEANER, 2024). Jamaica needs targeted public initiatives to distribute AI benefits fairly across the entire nation, so officials must recognize these distribution gaps. Rural businesses can stay competitive by leveraging AI technology, especially when they receive public funding in the form of subsidies. This support would provide rural

businesses with essential AI technologies. Digital training sessions for rural communities will help bridge knowledge gaps, enabling residents to engage effectively with modern technology. When Jamaica establishes regulations that ensure equal access to AI, the country can build an inclusive system that allows all social groups to access AI opportunities, fostering national economic growth across different regions.

INTEGRATION WITH THEORETICAL FRAMEWORKS

The analysis emphasizes key elements from the Technology Acceptance Model (TAM) and the Job Insecurity Framework (JIF). The research frameworks present worker perspectives on AI technologies and suggest adjustments to company operations management.

TAM predicts that the success of adoption mainly depends on users' perceptions of how easy the system is to use and how well it meets their tasks. User perceptions of working with AI systems are greatly affected by the factors examined in this study. Employees are more likely to adopt AI technology once they see that it boosts their work productivity. A key factor in AI acceptance at work is whether people believe the technology is useful or too hard to operate. Companies need to show the benefits of AI to workers and offer practical ways to use it to earn employee support for new technology systems.

The Job Insecurity Framework (JIF) explains how people react emotionally and psychologically when they believe their job might be eliminated. Our study shows that BPO employees mainly experience AI-related worries when their roles are at risk of automation. Work organizations must take prompt action to secure

their employees' ongoing employment. Sharing AI information along with company-sponsored training opportunities helps workers reduce stress and overcome job insecurity.

Integrating these interconnected theories with workplace systems helps BPO organizations improve their practices for implementing automated technology. Studies using TAM and JIF data assist organizations in developing better AI adoption strategies by understanding employee needs and technological preferences. AI implementation benefits businesses and fosters a more unified and advanced work environment for all workplace functions.

REGIONAL CHALLENGES IN AI ADOPTION

Current and prospective AI implementations across Jamaican BPOs face unique challenges, including inadequate infrastructure, lack of educational programs, and financial constraints. Access restrictions to essential advanced technology platforms are among the biggest hurdles in the BPO sector. Without proper technology infrastructure, many Jamaican organizations struggle to effectively deploy AI solutions, leading to poor implementation of AI systems. The high costs and limited access to AI infrastructure create substantial barriers, especially for small businesses with limited resources (HAMDAN *et al*., 2021). These ongoing challenges hinder Jamaican companies from fully realizing AI benefits, which reduces their international competitiveness.

Today's educational framework creates significant barriers for organizations trying to use AI systems in their operations. The rise of digital literacy programs and technical skill development has struggled to keep up with the needs of an AI-driven economy. Researchers point out that new workers often lack enough

experience with advanced technologies, leading organizations to spend large amounts on employee training and development. Businesses face financial stress because expenses for professional development and training often exceed initial investments in AI technology. Many companies today focus more on saving money than on long-term technological growth, which eventually slows down AI adoption, according to Johnson *et al*. (2016).

Both public agencies and private entities must work together to solve these issues. Businesses adopting AI technologies need government agencies to offer comprehensive infrastructure support, including financial assistance to those planning AI implementations. Existing incentives include tax breaks or subsidies that help businesses, mainly small and medium-sized enterprises, meet infrastructure investment requirements (GLASS; NEWIG, 2019). The education system must implement effective programs that develop the technological skills students need to succeed in an AI-driven business environment. Future graduates will encounter changing job market challenges because the educational system prepares them with critical skills. A mix of better infrastructure and a stronger educational system can help Jamaica improve its market competitiveness in the global BPO industry, thereby enabling businesses to leverage AI benefits and support economic growth.

EMPLOYEE AWARENESS AND MISINFORMATION

Employees need training to recognize and correct AI misconceptions, thereby gaining the understanding necessary for the widespread acceptance of AI systems across the Organization. A study examined the widespread misinterpretation and lack of knowledge about AI among Jamaica's Business Process Outsourcing (BPO) workers. Discussion groups showed a vague understanding

of what AI means, focusing only on employment insecurity instead of recognizing AI's potential to improve operational efficiency (MORANDINI *et al*., 2023).

Poor information and insufficient education leave Kickstarter vulnerable to spreading incorrect data. Inaccurate descriptions of AI capabilities reach employees, leading them to develop negative views of technology because they see it as a threat to their job security. According to the Technology Acceptance Model (TAM), perceived ease of use and usefulness are key factors influencing how people accept technology (DAVIS, 1989). AI adoption encounters resistance because most workers lack a thorough understanding of its benefits and often receive false information about AI.

Organizations should focus on precise and intentional education strategies for AI integration when training their workforce. These strategies need to teach employees how to interact confidently with AI systems. Expert feedback in the workplace can build employee trust and increase their willingness to adopt artificial intelligence systems (KIMANI, 2024).

CULTURAL DIMENSIONS OF AI INTEGRATION

Public perceptions of emerging technologies greatly influence BPO sector professionals in Jamaica's understanding of artificial intelligence adoption. Resistance to implementing artificial intelligence systems may be strong because Jamaicans deeply value their traditional way of life and favor face-to-face interactions. Many BPO employees view artificial intelligence solutions as lacking in their ability to provide personalized customer service, according to research from KPMG (2020). Studies from around the world show that workers often oppose technological advances due to concerns

about job loss and the dehumanization caused by machines, as well as doubts that robots can deliver accurate human-like communication. These misconceptions about AI systems create significant obstacles to the wider adoption of AI technology in Jamaican BPO companies.

A major concern arises because the workforce strongly believes that customer service jobs demand emotional intelligence and empathy. Many employees agree that AI systems, no matter how advanced, lack the essential human qualities that foster personal customer relationships (PATRICK; KUMAR, 2012). This view aligns with ongoing discussions about AI's limits in complex social interactions, where emotional skills remain key for providing excellent solutions. In the BPO industry, workers widely think that AI systems cannot replicate this industry's personalized customer service approaches.

Organizations must find a balance between technological innovations and worker-focused approaches to effectively overcome cultural barriers. Training initiatives should show employees that combining humans with AI systems produces better results, enabling groups to naturally expand their capabilities. Technology adoption is more positively received worldwide when companies demonstrate how these tools improve teamwork and provide better customer service without sacrificing personal human contact (BOZKUS, 2023). When employees are involved in AI implementation decisions, their trust increases, cultural sensitivities are honored, and worries about how technology might affect their roles are reduced. Collaboration between humans and artificial intelligence in the workplace will speed up AI integration and help achieve more successful technology implementation for Jamaican BPO companies.

CASE STUDIES FROM FOCUS GROUP INSIGHTS

Research teams conducted focus group discussions to collect essential case materials reflecting healthcare staff's perspectives on working with AI systems. One participant expressed concerns about AI automation because management did not discuss how artificial intelligence systems would affect workers' responsibilities. Another staff member noted that artificial intelligence allows workers to automate repetitive tasks, freeing up time for more advanced and challenging duties.

The workplace offers different perspectives because employees perform various jobs and have different educational backgrounds, along with their level of technological integration. AI programs mainly benefit managerial and technical staff; however, frontline workers often experience job-related anxiety due to AI implementation. Understanding various workplace perspectives helps organizations identify trends that improve AI implementation strategies (PATRICK; KUMAR, 2012).

The research shows that organizations using transparent communication, targeted training, and decision-making that includes employees as stakeholders create supportive attitudes toward AI adoption. Organizations that develop AI deployment approaches that address employee needs report greater system-wide acceptance of their AI programs (GARRICK *et al*., 2024). The study provides clear evidence that workplace success requires careful employee engagement, along with purposeful AI deployment practices that consider the diverse experiences of multiple workers.

GENDER AND ROLE-BASED PERSPECTIVES

Analysis of workplace AI perceptions shows that gender and professional status are key factors shaping workers' attitudes toward

artificial intelligence (AI). Female employees' concerns include job security and AI-related inequalities, with a particular emphasis on gender relations. Male employees see AI as machine learning technology aimed at improving operations and increasing productivity (TABASSUM; NAYAK, 2021).

Employees' professional roles shape their responses to artificial intelligence. Those working directly with customers worry about job security because they fear machines might replace their responsibilities for human interaction. Staff members focused on technology and team leaders more often see artificial intelligence as a way to create solutions and develop innovative practices that improve service delivery. According to Lee and Taylor (2019), operational strategies require specific implementation because different employee groups have distinct organizational concerns and personal priorities.

Organizations must consider their employees' diverse professional opinions to successfully implement AI. They should also create specialized training programs and support systems that help employees understand gender-specific barriers and promote fair AI outcomes. By nurturing a workplace culture that reflects AI principles and company values, organizations can achieve more effective remote AI integration and improve their overall performance (LEE *et al*., 2023).

AI AND CUSTOMER EXPERIENCE

Employee workplace feedback highlights that Artificial Intelligence technology is essential because it enhances product performance and provides personalized interactions. AI tools, like automated response systems and chatbots, have effectively reduced

response times for routine inquiries, leading to higher customer satisfaction and faster problem-solving (KELLEY, 2022). These AI systems work best when customers require quick and standard information responses. However, current systems do not inspire confidence in AI, as employees worry about its inability to understand emotional needs, which require human-level empathy to build sustainable client relationships (RASHID; KAUSIK, 2024).

AI enhances processes, which benefits customer service. However, it cannot replace crucial human interactions necessary for delivering quality service. Research shows that customers generally prefer talking to humans over other options when they need personalized attention during tense or emotionally charged moments. Customers appreciate the unique blend of emotional skill and deep understanding that human agents offer when managing complaints or complaint procedures. Secure, excellent customer experiences come from successful employee efforts that combine artificial intelligence efficiency with genuine human relationship skills.

Companies aiming to optimize their systems must first understand how their AI interacts with personnel. Through automated programs, workers can handle repetitive tasks, freeing human employees to focus on more complex customer challenges that require critical thinking and emotional intelligence. The collaboration between human intelligence and AI fosters workplaces where technical assistance supports human roles in customer support while delivering outstanding service quality (LEE *et al*., 2023).

ECONOMIC IMPLICATIONS OF AI INTEGRATION

Jamaican BPO operations generate dual economic development effects through employer dynamics, sector

competition, and salary redistribution challenges. Data analysis, AI management, and system development represent two main employment opportunities created by AI technology, while data indicates it could replace low-skilled workers. Implementing AI poses a significant risk of job loss, mainly affecting lower-skilled employees. The adoption of AI technology can be accelerated because automation processes replace basic-level positions, which many employees depend on as their primary income source (POWELL *et al*., 2024). Older workers express concern that their jobs are being seen as future competitors, and they are hesitant to take advantage of the training opportunities currently available in the labor market.

Productivity grows through artificial intelligence, which attracts foreign investments that boost economic growth. Jamaican businesses become more competitive globally because of productivity improvements that strengthen the country's position in the BPO industry, according to Chui, Manyika, and Miremadi (2016). Fully realizing AI benefits in Jamaica requires leadership from policymakers and business stakeholders in workforce training plans. Implementing advanced training and upskilling programs allows employees to learn skills that support AI systems, helping top companies avoid mass layoffs.

The AI-driven economy requires protective labor policies and regulations to ensure inclusivity and worker safety. Policymaking efforts should anticipate income disparities by creating mechanisms that secure employment stability and fair wages for workers potentially impacted by automation systems. Sustainable business growth in Jamaica relies on balancing technological advancement with employee well-being, thereby offering ongoing benefits for both businesses and workers in the long run.

LONG-TERM SUSTAINABILITY OF AI IN BPO

AI-driven models for the Jamaican BPO sector require the development of a strategic framework that includes technological innovation, employee adaptability, and the creation of comprehensive regulatory structures. Organizations must balance technological progress, economic objectives, and social responsibility to successfully adopt AI, ensuring productivity gains and workforce well-being are prioritized. A holistic approach is crucial for managing AI integration in the workplace, ensuring it enhances business efficiency and creates an environment where employees feel supported and prepared to work alongside emerging technologies (FARAYOLA *et al*., 2023).

Future AI advancements will boost the need for workforce education and training that keeps skills relevant for today's work environment. According to Morandini *et al*. (2023), ongoing educational programs help maintain worker skills by keeping awareness of new tools for the AI-driven economy. Employees are trained to understand AI tools, which boosts productivity through effective use of digital systems in their jobs. Poor employee training by organizations results in dissatisfied workers and operational failures in their systems.

Proper ethical practices in AI adoption are crucial for the growth of the Jamaican BPO sector. Organizations need to address privacy issues related to bias detection in algorithms while maintaining full transparency to build trust among workers and the public (O'NEIL, 2016). Companies that adopt ethical AI processes can strengthen community relationships, leading to better operations and social development. Virtual employee regulation frameworks will define important responsibilities for safeguarding staff rights; therefore, government officials and business leaders must

collaborate to create policies that promote innovation while protecting worker rights.

ETHICAL CONSIDERATIONS

Data Privacy

Data privacy is a critical issue, as AI systems must handle sensitive information about customers and employees. Meanwhile, organizations need to support existing data protection laws with industry standards for safeguarding personal data. Intellectual capital protection is maintained through encryption, access control, and transparency in ethics-based data collection (CHUI; MANYIKA; MIREMADI, 2016).

Maintaining data privacy requires organizations to perform regular security audits, which help identify system vulnerabilities and safeguard information from unauthorized access. Ongoing data review allows organizations to spot potential risks, thus quickly protecting the integrity of sensitive data. Organizations that establish clear regulatory frameworks for data management and communicate effectively about data use build stakeholder trust by demonstrating transparency and upholding ethical data governance (SARGIOTIS, 2024).

RECOMMENDATIONS FOR POLICY AND TRAINING FROM GROUND-LEVEL DATA

The findings give authorities the crucial information to create customized training programs and policy guidelines that meet the

needs of Jamaican BPO professionals. These recommendations include:

A. Customized Training Programs

Employee training should include specialized programs that blend technical instruction with core qualities, such as adaptability, followed by emotional intelligence training (SARGIOTIS, 2024). Companies should create role-and skill-level-appropriate educational programs to equip employees with the necessary tools to succeed in AI-driven work environments.

B. Transparent Communication

The orchestration of successful AI integration requires organizations to maintain open communication channels between workers and management teams, reducing personnel concerns and demonstrating organizational procedural changes. Public partnerships with private organizations should focus on policy development that establishes safety regulations to protect employee rights without hindering innovation. Embracing diversity among frontline and gender-based staff members becomes a fundamental requirement. Policy creation should incorporate ethical principles that define data security regulations, algorithm fairness standards, and AI usage protocols (O'NEIL, 2016).

PRACTICAL RECOMMENDATIONS

A. AI Literacy Training

AI literacy programs should be accessible to all workers through specialized training materials tailored to their skill levels and digital diversity (CHUI; MANYIKA; MIREMADI, 2016). The training should explain complex AI principles by showing how AI helps people complete tasks, rather than replacing them. Successful implementation involves platform-based training and visual demonstrations, encouraging hands-on learning. The evaluation process starts with assessments before training and continues with evaluations afterward to measure skill application by analyzing performance results and task completion.

B. Reskilling Initiatives

Reskilling initiatives should include training in AI practices, machine learning, and data analytics, while also teaching emotional intelligence, critical thinking, problem-solving skills, and adaptability. Combining human engagement with AI technology requires employees to possess these essential competencies. Organizations can evaluate success by monitoring employee progress, job satisfaction, and career metrics. Performance reviews and employee feedback surveys should be conducted regularly to assess program effectiveness (MORANDINI *et al*., 2023).

C. Policy Development

Leaders and policymakers should work together to set clear ethical standards for AI use, along with developing methods for

transparent operation, fair treatment, and strong personal data protection systems. Workers everywhere must keep their jobs, as they help ensure employees stay skilled in technologically advanced work environments. Public input becomes crucial to validate and gain stakeholder approval, so decision-makers create guidelines through collaboration with experts and stakeholders. The evaluation of AI adoption policies relies on standard audits combined with industry benchmarks and stakeholder feedback mechanisms, which aim to promote fair benefits for all involved (O'NEIl, 2016).

RECOMMENDATIONS FOR STAKEHOLDERS

A. Develop Targeted AI Literacy and Upskilling Pathways

To effectively prepare the Jamaican workforce for AI integration, stakeholders should collaboratively develop targeted AI literacy and skills training pathways. This includes forming partnerships between Jamaican tertiary institutions (such as UWI and UTech), vocational organizations (like HEART/NSTA Trust), and key industry associations (e.g., PSOJ, BPIAJ) to co-create relevant, modular programs. These programs need to be contextually grounded, initially focusing on skills relevant to Jamaica's main economic sectors, such as data analysis for BPO and finance, AI-enabled customer service for tourism, predictive maintenance for logistics, and precision agriculture. They should also use diverse delivery methods (online, blended, mobile-friendly) to ensure accessibility across regions and especially for workers within vital MSMEs.

To maintain relevance and adaptability, these educational initiatives should include stackable micro-credentials, enabling

individuals and organizations to gradually develop essential skills, along with strategic continuous learning frameworks that can adapt to the fast pace of technological change and specific AI tools used in various organizational settings.

B. Foster Culturally Resonant Transparency and Inclusive Dialogue

Building trust and ensuring the smooth adoption of AI requires fostering culturally resonant transparency and inclusive dialogue across Jamaican organizations. This can be achieved through phased communication strategies that use channels suitable for the local workplace culture, such as team meetings, reasoning sessions, consultations with staff associations or unions, and digital platforms. Importantly, communication must clearly explain the reasons behind AI implementation, its expected impact on specific job roles (highlighting both opportunities and challenges), and the available support systems. This framing helps connect the integration to broader national goals, like Vision 2030 Jamaica, to build buy-in and proactively address potential job security concerns.

To ensure adaptability and genuine participation, organizations should create cross-functional AI working groups or committees that include employee representatives from different levels. This promotes ongoing feedback, joint development of implementation plans tailored to operational realities, and continuous updates based on employee concerns and experiences, thereby strengthening alignment and building trust.

C. Co-Create Adaptive Governance Frameworks and Sector-Specific Policies

Establishing strong yet flexible governance is essential; therefore, it is advised to initiate multi-stakeholder dialogues to co-develop adaptable AI governance frameworks and policies tailored for Jamaica. This involves assembling relevant government ministries (e.g., SETT, MLSS, MIIC), the Office of the Information Commissioner (to ensure alignment with the Data Protection Act), industry groups, trade unions (e.g., JTUG), academia, and civil society. The focus should be on creating a national AI readiness framework that complements existing laws, such as the Jamaican legislation.

The Data Protection Act (2020) emphasizes creating practical, sector-specific guidelines (e.g., for BPO, Finance, and Tourism) that focus on data privacy, ethical use, bias reduction, and accountability, rather than pursuing overly broad regulations. To keep up with changing technology, these governance frameworks must be iterative, including specific guidance and support mechanisms for MSMEs aware of their resource limitations, and promoting ethical AI principles that align with Jamaican cultural values while staying responsive to global best practices.

D. Promote Human-Centric AI Collaboration and Augmentation

Organizations in Jamaica should strategically promote human-centric AI collaboration, emphasizing augmentation rather than just replacement. The main focus is on encouraging the adoption of AI tools specifically designed to enhance human

capabilities, identifying tasks within Jamaican workflows where AI can improve efficiency, decision-making, or creativity – for example, AI assisting customer service agents in the BPO and tourism sectors, data analysis tools supporting financial advisors, or diagnostic aids in technical fields.

This approach is supported by prioritizing pilot projects in key sectors to demonstrate tangible value, promoting access to user-friendly and affordable AI platforms (potentially through consortia or leveraging Jamaica's growing tech ecosystem for local solutions), and ensuring AI tools genuinely support workers. Adaptability is encouraged by fostering a workplace culture that empowers employees to experiment with AI tools and offer feedback for improvement. This is achieved by designing flexible workflows that allow teams to integrate AI smoothly as they develop proficiency, and by ensuring the technology continuously evolves to effectively serve both human workers and organizational goals.

LIMITATIONS OF THE STUDY

A. Limitations in Methodological Approach

Relying primarily on focus groups for qualitative data collection can cause judgmental biases in study results. Participants may alter their responses to meet public expectations but avoid expressing negativity about AI publicly. Research teams should combine large-scale survey data with current interview findings to ensure trustworthy results.

B. Sample Representation and Generalizability

Certain employee groups participated in this research, but the findings cannot be applied to the entire population. Because of the small number of study participants, the research team noted that the results should not be generalized to larger populations with confidence. The findings offered valuable insights into Jamaican BPO workers, but they did not fully examine all aspects of workforce complexities and issues across the industry. Jamaica's diverse workplaces influence employee thinking and working because each location has its own culture, tasks, and environmental conditions (GARRAD; HYLAND, 2020).

Research progress will require more participants, while broadening the demographic diversity of participants, to achieve meaningful and practical results. A targeted selection process that combines workplace demographics and urban-rural location options allows us to gather detailed findings and comprehensive knowledge of the actual Jamaican BPO sector conditions.

C. Temporal Scope

The research provides essential statistical evidence showing how BPO organizations in Jamaica implement AI systems. However, it overlooks recent developments in AI technology and upcoming organizational changes that may influence industry progress over time. Long-term research tracking these changes will offer more complete insights into how AI impacts our global environment.

Year-to-year tracking research helps us understand companies' adoption patterns of AI technology and employees' perceptions of their work experiences. Business operations change

strategies while AI development accompanies industrial transformations (JORZIK *et al*., 2024).

D. Technological Constraints

The study explores how current AI technologies are used in Jamaican BPO businesses, focusing on robotic process automation and chatbots. The AI tools reviewed were limited to available solutions, and the research did not assess emerging predictive models or the potential of machine learning AI systems for the industry. New-generation technology systems show great promise to transform BPO businesses by improving customer relationships and enhancing performance, leading to more effective decision-making.

Researchers should assess how modern artificial intelligence systems integrate with existing research to help industrial organizations maximize their performance potential (RASHID; KAUSIK, 2024). Expanding research shows how emerging technologies influence industrial progress while addressing current BPO issues to guide market trends.

SUGGESTIONS FOR FUTURE STUDIES

A. Longitudinal Studies on Job Role and Skill Evolution

To further build on this study's findings, conducting a long-term study is essential to go beyond the current snapshot of

employee perception. Future research should longitudinally monitor how job roles, skills requirements, and career pathways in the Jamaican BPO sector change over the next three to five years. This would yield valuable empirical data on the actual rates of job displacement versus creation and evaluate the long-term success of the reskilling initiatives currently in place.

B. Quantitative Study of AI on Productivity and Economic Impact

To support the qualitative findings on efficiency, a quantitative study should be conducted to measure AI's impact on key performance indicators. This research should involve correlating AI adoption levels with metrics such as operational costs, revenue generated, and customer satisfaction. Analyzing these factors will provide solid data on the technology's return on investment and its broader economic contributions to the Jamaican BPO industry.

C. Comparative Study with Other Developing Economies

Future research should compare the Jamaican economy with other developing nations to understand the impacts of AI integration. This will help contextualize Jamaica's specific challenges and successes, such as infrastructure gaps and workforce adoption. By analyzing different policy frameworks and cultural contexts, researchers can identify transferable best practices for a more effective and equitable technological transition worldwide.

D. Deeper Investigation of Ethical Dimensions and Algorithmic Bias

This study highlighted initial ethical concerns, which require further detailed investigation. Future research should specifically explore the potential for algorithmic bias in AI systems used for hiring and performance management within the Jamaican cultural setting. Additionally, evaluating the robustness of data privacy measures against international standards like the GDPR is essential for building trust and ensuring ethical adherence.

E. Evaluating the Role of Governance and Public-Private Partnerships

Addressing the identified gaps in policy requires research focused on governance. Future studies should critically assess the effectiveness of government policies and public-private partnerships in building supportive AI ecosystems in Jamaica. This includes examining incentive structures for AI investment and developing case studies of successful collaboration models that balance innovation with regulation, while also supporting local businesses.

F. Examining Employee Wellbeing and the Human-AI Experience

Looking beyond job security, a focused study on the psychological and social effects of AI on employees is necessary. Using established well-being frameworks, this research could examine the cognitive load on employees working with AI and the

resulting impacts on stress and job satisfaction. Understanding human-centric factors is crucial for creating supportive work environments and promoting sustainable human-AI collaborations.

G. Exploring the Impact of Next-Generation AI Technologies

This research focused on current AI applications, such as RPA and chatbots. The next phase of studies should explore the potential impact of emerging technologies, like advanced predictive analytics, on the BPO sector. This future-oriented research is essential to understanding how these new tools and technologies will influence customer service, job creation, and change the strategic landscape of Jamaican BPO.

CONCLUSION

CONCLUSION

This study explored how AI is integrated into Jamaica's Business Process Outsourcing (BPO) sector, focusing on employee perceptions, concerns about job security, and strategies for effective mitigation through a mixed-methods approach. Using frameworks like the Technology Acceptance Model (TAM) and the Job Insecurity Framework (JIF), the study examined the challenges of AI adoption in a developing country context, emphasizing issues related to infrastructural limitations, educational gaps, and global technological trends.

The findings show a workforce dealing with the dual aspects of AI – recognizing its potential to boost efficiency and productivity while also feeling significant anxiety about job security and the evolving nature of work. This highlights the urgent need for tailored, human-centered adoption strategies.

The discussion explored different perceptions of AI among Jamaican BPO agents, heavily influenced by demographic factors like age and education, as well as their specific job roles. Younger, more educated employees generally viewed AI more favorably as a tool to boost productivity and skills, aligning with TAM's focus on perceived usefulness.

On the other hand, frontline workers, especially those with less formal education or in roles vulnerable to automation, saw AI mainly as a threat to their jobs, reflecting the worries highlighted by the JIF. Concerns about job security were widespread and complicated; surprisingly, having more knowledge about AI didn't necessarily ease these fears, which might show a greater awareness of AI's disruptive potential. Still, the idea that AI could create new job opportunities was a key factor in lowering anxiety, pointing to a

way to improve employee outlooks with optimistic but realistic future planning.

Synthesizing both quantitative and qualitative data, the discussion strongly emphasized the critical role of organizational support in reducing job security fears and promoting AI acceptance. The findings consistently highlighted that proactive measures taken by BPO companies—such as providing accessible, targeted training and upskilling opportunities, maintaining transparent and culturally relevant communication about AI implementation plans and their impacts, actively fostering a collaborative human-AI work environment, and providing tangible resources during the transition—significantly decrease employee anxiety.

Moreover, the discussion emphasized the importance of developing adaptive governance frameworks, sector-specific policies, and standardized training and certification processes. This requires collaboration among industry, government, and educational institutions to establish a stable and predictable environment for both employers and employees as they navigate the integration of AI.

The wider implications discussed highlight the need for strategic workforce development initiatives tailored to the changing demands of an AI-driven BPO sector, focusing on both technical skills and uniquely human abilities like emotional intelligence and critical thinking. Ethical issues, especially those concerning data privacy, algorithmic fairness, and fair treatment of employees, are seen as essential for building trust and ensuring the sustainable integration of AI.

Tackling the digital divide and ensuring fair access to AI benefits across Jamaica, especially in rural regions, has become a major policy challenge. Ultimately, the recommendations focus on expanding AI literacy, encouraging inclusive dialogue, co-

developing strong governance, and advocating for human-centered AI augmentation to responsibly transform the sector.

In conclusion, this study directly addressed its main research questions. First, Jamaican BPO customer service agents view AI integration with a mix of cautious optimism and notable concern. Their perceptions are influenced by age, education, and role, with some seeing AI as a helpful tool and others as a potential threat to their jobs. There is a clear need for better knowledge and transparent communication. Second, concerns about job security are widespread and serious, fueled by fears of automation displacing jobs, uncertainty about future roles, and perceived gaps in skills or support. Nonetheless, belief in AI's ability to create new opportunities provides some reassurance.

Finally, practical strategies for BPO companies to address these concerns focus on demonstrating strong organizational support, mainly through targeted training and reskilling, transparent and continuous communication, fostering human-AI collaboration, providing transition resources, and setting clear ethical guidelines and supportive policies. By emphasizing these human-centered strategies, Jamaica's BPO sector can navigate the complexities of AI integration, promote innovation, and secure a fair and sustainable future for its workforce.

REFERENCES

REFERENCES

ADAM, M.; WESSEL, M.; BENLIAN, A. (2021). "AI-based chatbots in customer service and their Effects on user compliance". **Electronic Markets**, vol. 31, n. 2.

ADERIBIGBE, N. A. O. *et al*. (2023). "Artificial intelligence in developing countries: Bridging the gap between potential and implementation". **Computer Science and IT Research Journal**, vol. 4, n. 3.

AFZAL, A. *et al*. (2023). "Addressing the digital divide: Access and Use of Technology in Education". **Journal of Social Sciences Review**, vol. 3, n. 2.

AHMED, M. I. *et al*. (2023). "A systematic review of the barriers to the implementation of artificial intelligence in healthcare". **Cureus**, vol. 15, n. 10.

AKGUN, S.; GREENHOW, C. (2021). "Artificial intelligence in education: Addressing ethical challenges in K-12 settings". **AI and Ethics**, vol. 2, n. 3.

AL-EMRAN, M.; GRIFFY-BROWN, C. (2023). "The role of technology adoption in sustainable Development: Overview, Opportunities, Challenges, and Future Research Agendas". **Technology in Society**, vol. 73.

ALI, M. I. (2024). "A guide for positivist research paradigm: From philosophy to methodology". **Ideology Journal**, vol. 9, n. 2.

ALLMARK, P. (2004). "Should research samples reflect the

diversity of the population?" **Journal of Medical Ethics**, vol. 30, n. 2.

ALOWAIS, S. A. *et al*. (2023). "Revolutionizing healthcare: The role of artificial intelligence in clinical practice". **BMC Medical Education**, vol 23, n. 1.

ALSYOUF, A. *et al*. (2023). "The use of a Technology Acceptance Model (TAM) to predict Patients' usage of a personal health record system: The role of security, privacy, and Usability". **International Journal of Environmental Research and Public Health**, vol. 20, n. 2.

AMDUR, E. (2024). "6 critical – and urgent – ethics issues with AI". **Forbes**. Available at: <www.forbes.com>. Accessed on: 12/07/2025.

ANAND, A. *et al*. (2023). "The effect of job security, insecurity, and burnout on employee organizational commitment". **Journal of Business Research**, vol. 162.

ANGUS, G. (2017). "Gov't committed to providing the BPO sector with the necessary support – Jamaica Information Service". **Jamaica Information Service**. Available at: <www.jis.gov.jm>. Accessed on: 12/07/2025.

ANGWIN, J. *et al*. (2016). "Machine bias: There is software used Nationwide to predict future criminals. Moreover, it is not very objective against Blacks". **ProPublica**. Available at: <www.propublica.org>. Accessed on: 12/07/2025.

BADWALL, H. (2016). "Critical reflexivity and moral regulation". **Journal of Progressive Human Services**, vol. 27, n. 1.

BARUCH, Y.; VARDI, Y. (2016). “A fresh look at the dark side of contemporary careers: Toward a Realistic discourse”. **British Journal of Management**, vol. 27, n. 2.

BATES, D. W. *et al*. (2021). “The potential of artificial intelligence to Improving Patient Safety: A Scoping Review”. **NPJ Digital Medicine**, vol. 4, n. 1.

BHARADIYA, J. P.; THOMAS, R. K.; AHMED, F. (2023). “Rise of Artificial Intelligence in Business And Industry”. **Journal of Engineering Research and Reports**, vol. 25, n. 3.

BLACKWOOD, J. A. (2023). **Talent management in the Jamaican BPO industry**: A phenomenological study of relationship challenges and prospects (Thesis of Doctor of Business Administration). Edinburgh: Napier University.

BLESS, C.; HIGSON-SMITH, C. (2000). **Fundamentals of social research methods**: An African Perspective. Cape Town: Juta and Company.

BON, A.; SAA-DITTOH, F.; AKKERMANS, H. (2024). “Bridging the digital divide”. *In*: WERTHNER, H. *et al*. (eds.). **Introduction to digital humanism**. London: Springer.

BOZKUS, K. (2023). **Organizational culture change and technology**: Navigating the digital transformation. London: IntechOpen eBooks.

BRADLEY, T. (2024). How AI is revolutionizing customer experience. **Forbes**. Available at: <www.forbes.com>. Accessed on: 12/07/2025.

CAMPOS ZABALA, F. J. (2023). “Responsible AI: Understanding

the ethical and regulatory Implications of AI". *In*: CAMPOS ZABALA, F. J. **Grow your business with AI**. London: Apress.

CASCIO, W. F.; MONTEALEGRE, R. (2016). "How Technology Is Changing Work and Organizations". **Annual Review of Organizational Psychology and Organizational Behavior**, vol. 3, n. 1.

CHANDRA, G.; GUPTA, R.; AGARWAL, N. (2020). "Role of Artificial Intelligence in Transforming The Justice Delivery System in the COVID-19 Pandemic". **International Journal on Emerging Technologies**, vol. 11, n. 3.

CHANG, P. *et al*. (2024). Does AI-driven technostress promote or Hinder employees' adoption of artificial intelligence? A moderated mediation model of affective reactions and technical self-efficacy". **Psychology Research and Behavior Management**, vol. 17.

CHARLES, J. M.; FRANCIS, F.; ZIRRA, C. T. (2021). Effect of Employee Involvement in Decision-Making and Organizational Productivity". **Archives of Business Research**, vol. 9, n. 3.

CHENG, B.; LIN, H.; KONG, Y. (2023). "Challenge or hindrance? How and when organizational Artificial intelligence adoption influences employee job crafting". **Journal of Business Research**, vol. 164.

CHIRUMBOLO, A.; CALLEA, A.; URBINI, F. (2021). The effect of job insecurity and life uncertainty On everyday consumption and broader life projects during the COVID-19 pandemic. **International Journal of Environmental Research and Public Health**, vol. 18, n. 10.

CHOWDHURY, S. *et al*. (2022). "AI- employee Collaboration and

business performance: Integrating knowledge-based view, socio-technical systems, and organisational socialisation framework". **Journal of Business Research**, vol. 144.

CHOWDHURY, S. *et al*. (2022). "Unlocking the value of artificial intelligence in human resource management through an AI capability framework". **Human Resource Management Review**, vol. 33, n. 1.

CHUI, M.; MANYIKA, J.; MIREMADI, M. (2016). "Where machines could replace humans— and where they cannot (yet)". **McKinsey Quarterly**. Available at: <www.mckinsey.com>. Accessed on: 12/07/2025.

CIARLI, T. *et al*. (2021). "Digital technologies, innovation, and skills: Emerging trajectories and challenges". **Research Policy**, vol. 50, n. 7.

CLARK, J. (2023). "Could Jamaica become the Caribbean's technology hub?" **CNW Network**. Available at: <www. caribbeannationalweekly.com>. Accessed on: 12/07/2025.

CONNELL, L. M. (2011). "Cronbach's Alpha". **MedSurg Nursing**, vol. 20, n. 1.

CRESWELL, J. W.; CRESWELL, J. D. (2017). **Research design**: Qualitative, quantitative, and mixed methods approaches. London: Sage Publications.

DAVENPORT, T. H. (2018). "From analytics to artificial intelligence". **Journal of Business Analytics**, vol. 1, n. 2.

DAVIS, F. D. (1989). "Perceived usefulness, perceived ease of use, and user acceptance of information technology". **MIS Quarterly**,

vol. 13, n. 3.

DAVIS, F.; BAGOZZI, R.; WARSHAW, P. (1989). "User acceptance of computer technology: A comparison of two theoretical models". **Management Science**, vol. 35, n. 8.

ANGELIS, M.; MAZZETTI, G.; GUGLIELMI, D. (2021). "Job insecurity and job performance: A serial mediated relationship and the buffering effect of organizational justice". **Frontiers in Psychology**, vol. 12.

DENNISON, K. (2023). "The power of mentorship: How mentors can help employees grow and succeed". **Forbes**. Available at: <www.forbes.com>. Accessed on: 12/07/2025.

EBIDOR, L. L.; IKHIDE, I. (2024). "Literature review in scientific research: An overview". **East African Journal of Education Studies**, vol. 7, n. 2.

ENHOLM, I. M. *et al*. (2022). "Artificial intelligence and business value: A literature review". **Information Systems Frontiers**, vol. 24, n. 7.

ERDÉLYI, O. J.; GOLDSMITH, J. (2022). "Regulating artificial intelligence: Proposal for a global solution". **Government Information Quarterly**, vol. 39, n. 4.

FARAYOLA, N. O. A. *et al*. (2023). "Innovative business models driven by AI technologies: A review". **Computer Science and IT Research Journal**, vol. 4, n. 2.

LEAL FILHO, W. *et al*. (2024). "The added value of partnerships in implementing the UN Sustainable Development Goals". **Journal of Cleaner Production**, vol. 438.

FILIPPI, E.; BANNÒ, M.; TRENTO, S. (2023). "Automation technologies and their impact on employment: A review, synthesis and future research agenda". **Technological Forecasting and Social Change**, vol. 191.

FISHER, E. *et al*. (2023). Occupational safety and health equity impacts of artificial intelligence: A scoping review". **International Journal of Environmental Research and Public Health**, vol. 20, n. 13.

FRANKENBERG, E. V. (2024). "Harnessing technology: Why efficiency in BPO may lead to more jobs, not fewer". **Jamaica Observer**. Available at: <www. jamaicaobserver.com>. Accessed on: 12/07/2025.

FREY, C. B.; OSBORNE, M. A. (2017). "The future of employment: How susceptible are jobs to computerization?" **Technological Forecasting and Social Change**, vol. 114.

GANUTHULA, V. R.; BALARAMAN, K. K. (2025). "Skill-Based Labor Market Polarization in the Age of AI: A Comparative Analysis of India and the United States". **ArXiv**. Available at: <www. arxiv.org>. Accessed on: 12/07/2025.

GARAVAN, T. N. *et al*. (2020). "The current state of research on training effectiveness". *In*: GARAVAN, T. N. *et al*. **Learning and Development Effectiveness in Organisations**. Cham: Springer.

GARRAD, L. K.; HYLAND, P. K. (2020). "Employee survey research: A critical review of theory and practice". *In*: MACEY, W. H.; FINK, A. A. (eds.). **Employee surveys and sensing**: Challenges and opportunities. New York: Oxford University Press.

GARRICK, A.; JOHNSON, W. D.; ARENDT, S. W. (2024).

"Breaking barriers: Strategies for fostering inclusivity in the workplace". **International Journal of Academic Research in Business and Social Sciences**, vol. 14, n. 2.

GEORGIEFF, A.; HYEE, R. (2022). "Artificial intelligence and employment: New cross- country evidence. **Frontiers in Artificial Intelligence**, vol. 5.

GERKE, S.; MINSSEN, T.; COHEN, G. (2020). "Ethical and Legal Challenges of Artificial Intelligence-Driven Healthcare". *In*: BOHR, A.; MEMARZADEH, K. (eds.). **Artificial intelligence in healthcare**. London: Academic Press.

GLASS, L.; NEWIG, J. (2019). "Governance for achieving the sustainable development goals: How important are participation, policy coherence, reflexivity, adaptation, and democratic institutions?" **Earth System Governance**, vol. 2.

GOISAUF, M.; ABADÍA, M. (2022). "Ethics of AI in radiology: A review of ethical and societal implications". **Frontiers in Big Data**, vol. 5.

GOLZAR, J. *et al*. (2022). "Convenience sampling". **International Journal of Education and Language Studies**, vol. 1, n. 2.

GREAVES, N. (2018). "Jamaican investment company secures millions in foreign direct investments". **CNW Network**. Available at: <www. caribbeannationalweekly.com>. Accessed on: 12/07/2025.

GRECH, M. (2025). "From research to regulation: Synthesizing empirical findings for AI policy". **Policy and Society**. Available at: <www.editverse.com>. Accessed on: 12/07/2025.

HABIB, S. *et al*. (2024). "How does generative artificial intelligence impact student creativity?" **Journal of Creativity**, vol. 34, n. 1.

HAMDAN, A. *et al*. (2021). **Applications of Artificial Intelligence in Business, Education, and Healthcare**. London: Springer Nature.

HAMILTON, D. (2023). "State-of-the-art AI in Jamaica's BPO sector". **Magnetic Media**. Available at: <www.magneticmediatv.com>. Accessed on: 12/07/2025.

HASAN, M. J.; KARIM, M. R. (2022). "Business Process Outsourcing through Business Process Management and Knowledge Management: Evidence from Bangladesh". **International Journal of Management and Accounting**, vol. 4, n. 3.

HAVUR, G. *et al*. (2016). "Resource allocation with dependencies in business process management systems". *In*: LA ROSA, M. *et al*. (eds.). **Business Process Management Forum. BPM 2016. Lecture Notes in Business Information Processing**. Cham: Springer.

HEINSCH, M. *et al*. (2021). "Theories informing eHealth implementation: Systematic review and typology classification". **Journal of Medical Internet Research**, vol. 23, n. 5.

HOSSAN, D. *et al*. (2023). "Research Population and Sampling in Quantitative Study". **International Journal of Business and Technopreneurship**, vol. 13, n. 3.

HTA, M. K. Z. *et al*. (2023). "A systematic review on the cultural factors associated with stigma during pandemics". **Current Psychology**, vol. 43, n. 14.

HUANG, M. H.; RUST, R. T. (2018). "Artificial intelligence in

service". **Journal of Service Research**, vol. 21, n. 2.

HUANG, M. H.; RUST, R. T. (2021). "A strategic framework for artificial intelligence in Marketing". **Journal of the Academy of Marketing Science**, vol. 49, n. 1.

HUANG, Y.; GURSOY, D. (2024). "How does AI technology integration affect employees' proactive service behaviors? A transactional theory of stress perspective". **Journal of Retailing and Consumer Services**, vol. 77.

HUNTON LLP. (2025). "Ethical AI and employment law". **Hunton Andrews Kurth LLP Publications**. Available at: <www.hunton.com>. Accessed on: 12/07/2025.

IBRAHIM, S.; HANAFI, A. (2013). "Call center offshoring performance management". **Strategic Outsourcing: An International Journal**, vol. 6, n. 3.

JAIN, R. (2023). "The impact of artificial intelligence on business: Opportunities and challenges". **SSRN**. Available at: <www.ssrn.com>. Accessed on: 12/07/2025.

JAMAICA GLEANER. (2019). "Transforming Jamaica's BPO industry – Why GSS is needed in 2019". **Business**. Available at: <www.jamaica-gleaner.com>. Accessed on: 12/07/2025.

JAMAICA GLEANER. (2021). "The BPO sector expands". **Lead Stories**. Available at: <www.jamaica-gleaner.com>. Accessed on: 12/07/2025.

JAMAICA GLEANER. (2024). "AI ethics will become even more valuable". **Letters**. Available at: <www.jamaica-gleaner.com>. Accessed on: 12/07/2025.

JAMAICA INFORMATION SERVICE. (2022). “Jamaica's positioning for growth in the BPO sector”. **Jamaica Information Service**. Available at: <www.jis.gov.jm>. Accessed on: 12/07/2025.

JAMAICA INFORMATION SERVICE. (2024). “Artificial intelligence will transform the future of work”. **Jamaica Information Service**. Available at: <www.jis.gov.jm>. Accessed on: 12/07/2025.

JAMAICA OBSERVER. (2019). “A better understanding of the business process outsourcing industry (BPO)”. **Jamaica Observer**. Available at: <www. jamaicaobserver.com>. Accessed on: 12/07/2025.

JAMAICA OBSERVER. (2022). “BPO: Opportunities and challenges”. **Jamaica Observer**. Available at: <www. jamaicaobserver.com>. Accessed on: 12/07/2025.

JAMAICA OBSERVER. (2024). “itelbpo Embraces AI, Launches 'itelligence'”. **Jamaica Observer**. Available at: <www. jamaicaobserver.com>. Accessed on: 12/07/2025.

JOHNSON, A. M. *et al*. (2016). “Challenges and Solutions When Using Technologies in the Classroom”. *In*: CROSSLEY, S. A.; MCNAMARA, D. S. (eds.). **Adaptive educational technologies for literacy instruction**. London: Taylor and Francis.

JORZIK, P. *et al*. (2024). “AI-driven business model innovation: A systematic review and research agenda”. **Journal of Business Research**, vol. 182.

KAHFI, F. (2022). “Exploring the impact of digital technology on employee adaptation and organizational performance”. **Journal of Management and Administration Provision**, vol. 2, n. 2.

KELLEY, S. (2022). “Employee perceptions of the effective adoption of AI principles”. **Journal of Business Ethics**, vol. 178, n. 4.

KELLY, S.; KAYE, S.; OVIEDO-TRESPALACIOS, O. (2022). “What factors contribute to the acceptance of artificial intelligence? A systematic review”. **Telematics and Informatics**, vol. 77.

KESS-MOMOH, N. A. J. *et al*. (2024). “Strategic human resource management in the 21st century: A review of trends and innovations”. **World Journal of Advanced Research and Reviews**, vol. 21, n. 1.

KHAN, B. *et al*. (2023). “Drawbacks of Artificial Intelligence and Their Potential Solutions in the Healthcare Sector”. **Biomedical Materials and Devices**, vol. 1, n. 4.

KHAN, M. A. *et al*. (2024). “Impact of Artificial Intelligence on the Global Economy and Technology Advancements”. *In*: HAJJAMI, S. *et al*. **Advanced Technologies and Societal Change**. London: Springer.

KIM, J.; JUNG, H. (2022). “The effect of employee competency and organizational culture on employees’ perceived stress for a better workplace”. **International Journal of Environmental Research and Public Health**, vol. 19, n. 8.

KIMANI, B. (2024). “Internal communication strategies and employee engagement”. **Journal of Public Relations**, vol. 2, n. 1.

KOBER, G. (2025). **AI-First leadership**: Embracing the future of work. New York: Harvard Business Publishing.

KPMG. (2020). **The future of work in BPO**: Embracing artificial

intelligence. London: KPMG International.

KRUTOVA, O. *et al*. (2021). "Job insecurity and technology acceptance: An asymmetric dependence". **Journal of Information Communication and Ethics in Society**, vol. 20, n. 1.

KUMAR, K. *et al*. (2023). Artificial intelligence machine learning-based intervention in medical infrastructure: A review and future trends. **Healthcare**, vol. 11, n. 2.

LÅSTAD, L.; TANIMOTO, A. S.; LINDFORS, P. (2021). "How do job insecurity profiles orrespond to employee experiences of work-home interference, self-rated health, and psychological well-being?" **Journal of Occupational Health**, vol. 63, n. 1.

LACITY, M. C.; WILLCOCKS, L. P.; CRAIG, A. (2014). "South Africa's business process outsourcing services sector: Lessons for Western-based client firms". **South African Journal of Business Management**, vol. 45, n. 4.

LAZZARA, E. H. *et al*. (2021). "Enhancing the Organization's Workforce: Guidance for Effective Training Sustainability". **Consulting Psychology Journal**, vol. 73, n. 1.

LEE, K.; TAYLOR, R. (2019). "Tailored strategies for AI implementation: Understanding employee perspectives". **Technology and Management Review**, vol. 7, n. 1.

LEE, M. C. *et al*. (2023). "The implementation of artificial intelligence in organizations: A systematic literature review". **Information and Management**, vol. 60, n. 5.

LEHMANN, H. (2010). "Research methodology". *In*: LEHMANN, H. **The dynamics of international information systems**. London:

Springer.

LI, H.; MEISSNER, J. (2008). “Improving quality in business process outsourcing through Technology”. **ResearchGate**. Available at: <www.researchgate.net>. Accessed on: 12/07/2025.

LI, L. (2024). “Reskilling and upskilling the future-ready workforce for Industry 4.0 and beyond”. **Information Systems Frontiers**, vol. 26, n. 4.

LIU, R.; ZHAN, Y. (2020). “The impact of artificial intelligence on job insecurity: A moderating role based on vocational learning capabilities”. **Journal of Physics: Conference Series**, vol. 1629, n. 1.

LIU, W.; LIU, Y. (2022). “The impact of incentives on job performance, business cycle, and population on health in emerging economies”. **Frontiers in Public Health**, vol. 9.

LUFT, J. A. *et al*. (2022). “Literature reviews, theoretical frameworks, and conceptual frameworks: An introduction for new biology education researchers. **CBE—Life Sciences Education**, vol. 21, n. 3.

MCKINSEY AND COMPANY. (2023). “The future of work in the Caribbean: Preparing for automation and AI”. **McKinsey and Company**. Available at: <www.mckinsey.com>. Accessed on: 12/07/2025.

OECD. (2023). **Artificial intelligence in society**: Opportunities and challenges. Paris: OECD Publishing. Available at: <www.oecd.org>. Accessed on: 12/07/2025.

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