



Liceo de Cagayan University School of Business Management and Accountancy

Chapter 1

THE PROBLEM AND ITS SCOPE

Introduction

Over the past decade, Artificial Intelligence (AI) has transformed industries across the globe, redefining how businesses operate and how employees perform their tasks. From intelligent automation systems in manufacturing to machine learning-driven analytics in marketing, AI technologies are now integral to the modern digital economy. As organizations adopt these systems, questions arise regarding their influence on workforce productivity, job satisfaction, and the evolving nature of human labor.

Despite growing enthusiasm for Artificial Intelligence (AI) integration across industries, empirical understanding of its true impact on workforce productivity and social well-being remains fragmented. While global discourse celebrates AI as a driver of innovation and efficiency, its diffusion has also intensified societal concerns about job displacement, deskilling, and the erosion of human creativity in the workplace (Sanchez & Sy, 2017; Gonzales & Jimenez, 2019). These studies illuminate macroeconomic shifts in labor markets, yet they seldom capture the micro-level realities of employees navigating hybrid human-machine systems. Recent analyses (Cabrera et al., 2021; Llanera & Lavarez, 2019) describe AI's growing presence in organizational processes but fall short of quantifying its tangible effects on worker performance. Moreover, although Sobrevilla and Ruiz (2018) investigate employees' perceptions of AI, there remains limited evidence on

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how collaboration between humans and intelligent systems translates into measurable productivity gains. Consequently, the literature overlooks the nuanced interdependencies between AI capability maturity, workforce adaptation, and organizational learning — dynamics that are not only central to firm-level success but also to sustaining equitable and meaningful work in an AI-driven society.

This study aims to examine the direct relationship between Artificial Intelligence (AI) adoption and workforce productivity across selected industries. It explores how the integration of AI technologies—such as automation tools, intelligent data systems, and machine learning applications—shapes employee efficiency and overall organizational performance. The research further seeks to provide empirical insights into how effective AI implementation can serve as a strategic driver of productivity improvement in modern workplaces, supporting innovation and sustainable growth in the digital economy.

Understanding how AI affects workforce productivity is crucial for policymakers, corporate leaders, and researchers aiming to design effective digital transformation strategies. Insights from this study will inform evidence-based policies that balance technological advancement with sustainable employment, aligning with the United Nations (2015) Sustainable Development Goals (SDGs)—particularly SDG 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation, and Infrastructure). By promoting human-centered innovation, the study contributes to building resilient, inclusive workplaces where technology empowers rather than replaces human potential. Furthermore, the findings can

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guide organizations in developing responsible AI adoption frameworks that enhance productivity, foster equitable skill development, and ensure long-term economic sustainability in the digital era.

Theoretical and Conceptual Framework

The rapid integration of Artificial Intelligence (AI) in the tourism industry has transformed service delivery and employee performance. To understand the effect of AI adoption on work performance among tourism professionals, this study is grounded in three interrelated theories: the Technology Acceptance Model (TAM), Kolb's Experiential Learning Theory (ELT), and Social Exchange Theory (SET). Together, these frameworks explain how tourism employees adopt AI tools, how they develop competence in using them, and how social and organizational support motivates the application of AI skills in the workplace.

Technology Acceptance Model (TAM)

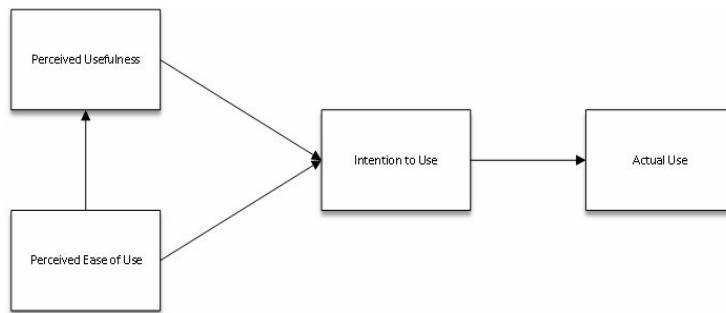
The Technology Acceptance Model (Davis, 1989; Venkatesh & Davis, 2000) posits that individuals' decisions to adopt technology are influenced by perceived usefulness—the extent to which a technology improves job performance—and perceived ease of use—how effortless it is to operate. Research in tourism contexts demonstrates that these constructs significantly predict the intention to adopt AI technologies, such as chatbots, automated booking systems, virtual assistants, and recommendation engines (White, 2021; Reyes & Lanit, 2020).

For tourism employees, adoption is more likely when AI tools reduce task complexity and enhance efficiency. For example, hotel staff are more inclined to use an AI reservation system if it minimizes check-in times and errors, directly improving service quality. TAM, therefore, explains the initial step in the relationship: the decision to adopt AI is a prerequisite for any subsequent impact on work performance.

The Strength of this model is it provides a clear rationale for understanding technology adoption in organizational contexts; widely validated in tourism and hospitality studies. While its limitation Focuses on individual perceptions and may not fully account for organizational or social influences on technology use.

Figure 1

Technology Acceptance Model (Davis, 1989)



Kolb's Experiential Learning Theory (ELT)

Kolb's Experiential Learning Theory (1984) describes learning as a continuous, cyclical process comprising concrete experience, reflective observation, abstract

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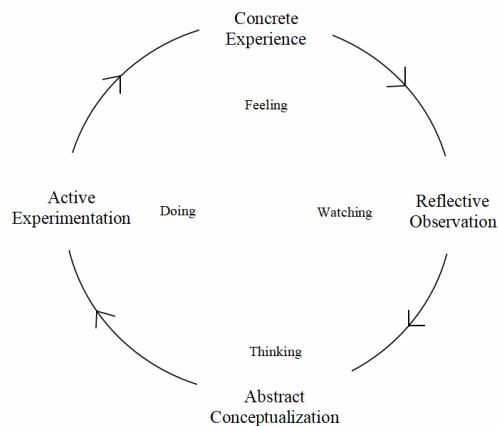
conceptualization, and active experimentation. Learning is most effective when individuals actively engage with experiences, reflect on them, and apply insights to new situations.

In tourism workplaces, employees encounter AI systems during daily operations—such as analytics platforms for personalized guest experiences or autonomous check-in kiosks. Through hands-on engagement with these tools and reflection on their use, employees develop confidence, competence, and creativity in service delivery. Empirical studies in tourism and hospitality education support ELT's application, demonstrating that experiential engagement enhances practical skills, problem-solving, and workplace readiness (ResearchGate). ELT, therefore, explains the learning mechanism through which AI adoption translates into practical skills and improved work performance.

The Strength of this approach is it connects theory to practice; emphasizes active, reflective learning that enhances skill development. Meanwhile, its limitations are that learning outcomes may vary depending on individual engagement and the quality of experiential opportunities.

Figure 2

Kolb's Experiential Learning Cycle (1984)



Social Exchange Theory (SET)

Social Exchange Theory (Blau, 1964) posits that social behavior is influenced by perceived rewards and costs in reciprocal relationships. In organizational settings, employees who perceive support, recognition, or rewards from supervisors, peers, or customers tend to respond with increased motivation, commitment, and performance.

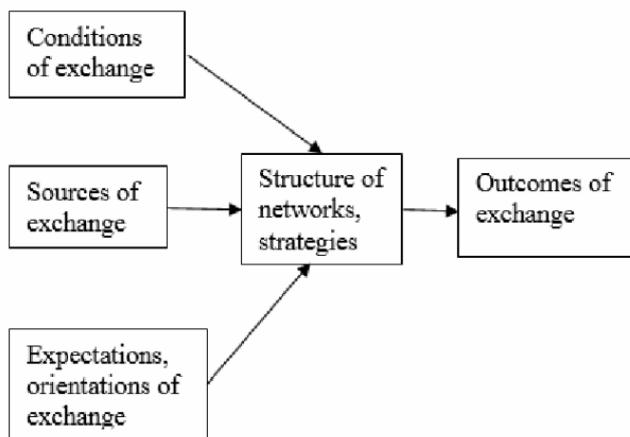
In tourism, especially in frontline roles like guest services, tour operations, and hotel management, employees are more likely to apply AI skills effectively when they feel socially and organizationally supported. This can include recognition for efficient AI use, incentives for performance, or a positive team environment that reinforces collaboration. Studies in hospitality and service industries indicate that constructive social exchanges lead to higher discretionary behaviors and improved service outcomes (ScienceDirect).

SET thus explains the motivational context: even when employees adopt and learn AI tools, performance improvements occur only if social and organizational support encourages the practical application of these skills.

The Strength of this theory is it highlights the importance of motivation and social context in translating skills into performance. The limitation is that it may not fully capture external constraints such as technological infrastructure or workload pressures.

Figure 3

Social Exchange Theory (Blau, 1964)

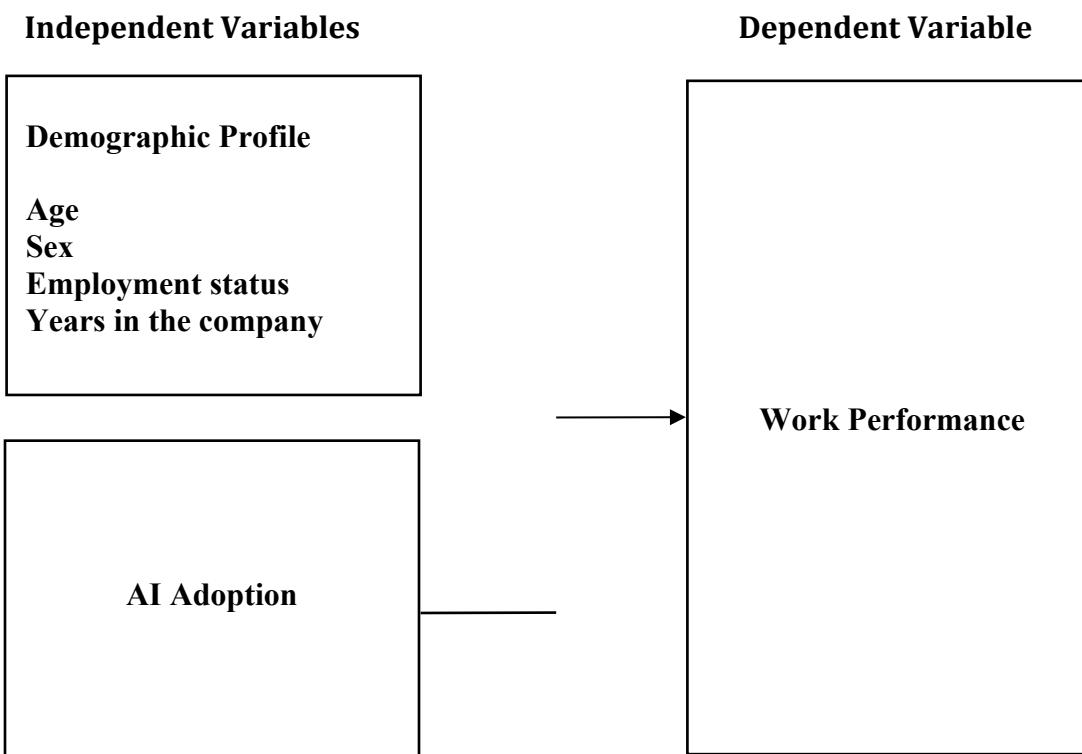


Together, TAM, ELT, and SET form a comprehensive lens for this study. TAM explains why tourism employees adopt AI, ELT describes how they develop competence in using AI through experience and reflection, and SET contextualizes the social and motivational conditions necessary for these skills to enhance work performance. This

integrated framework ensures a holistic understanding of AI adoption and its effects on employee performance in tourism organizations.

Figure 4

The schematic diagram showing the relationship between the independent and dependent variable



Statement of the Problem

The study aims to examine the relationship of artificial intelligence (AI) adoption on the work performance of tourism employees.

Specifically, the study sought to answer the following questions:

1. What is the demographic profile of the respondents in terms of:

1.1 Age;

1.2 Sex;

1.3 Employment status; and

1.4 Years in the company?

2. What is the level of AI adoption among tourism employees?

3. What is the level of work performance of tourism employees?

4. Is there a significant relationship between employees work performance and demographic profile and AI adoption?

5. Which independent variable(s), AI adoption and demographic characteristics, significantly influence the work performance of employees?

Hypotheses/Assumption

This study is guided by the hypotheses that:

Ho1: There is no significant relationship between between employees work performance and demographic profile and AI adoption

Ho2: There is no independent variable that significantly influences the work performance of employees.

Significance of the Study

The findings of this study are significant as they contribute to the growing body of knowledge on the role of technology in the workplace. By examining the relationship between artificial intelligence (AI) adoption and the work performance of tourism employees, this study provides valuable insights into how modern technological tools can enhance productivity and service quality in the tourism and hospitality industry.

Specifically, the study is beneficial to:

The Tourism and Hospitality Industry – The results can guide managers and organizational leaders in understanding how AI implementation affects employee performance. This can help in designing effective training programs, improving operational efficiency, and enhancing the overall quality of services provided to guests.

Employees – Tourism employees can gain awareness of how AI tools may influence their daily tasks and performance. Understanding this relationship can motivate them to develop relevant technological competencies and adapt to emerging workplace technologies.

Policy Makers – The findings can help policymakers in the tourism sector design guidelines and frameworks that promote the effective adoption of AI while ensuring employee development and sustainability in the workforce.

Educational Institutions – The study provides a basis for curriculum development and the integration of AI-related skills in tourism and hospitality programs.

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Future Researchers – The study serves as a reference for future research on AI adoption and its effects on work performance, offering empirical evidence and insights that can guide subsequent studies in related fields.

Scope and Delimitation of the Study

This study focuses on examining the effect of artificial intelligence (AI) adoption on the work performance of tourism employees. It covers the level of AI adoption, the work performance of employees, and the relationship between these variables. The study also considers the demographic profile of the respondents, such as age, sex, employment status, and years of experience, as potential factors that may influence work performance.

The respondents of the study are limited to tourism employees currently working in selected hotels and tourism establishments within **Cagayan de Oro City, Academic Year 2025-2026**. Data collection is conducted through structured surveys, and the study focuses only on AI tools and systems used in daily operations.

The study is delimited in the sense that it does not include employees from other industries, nor does it examine other factors that may affect work performance, such as organizational culture, leadership style, or personal motivation, beyond the scope of AI adoption and demographic profile. The findings are therefore applicable primarily to the context of tourism and hospitality operations where AI has been implemented.

Definition of Terms

To ensure clarity and consistency in this study, the following terms are operationally defined as used in the research:

Age refers to the number of years the employee has lived, as reported in the survey questionnaire.

Artificial Intelligence (AI) Adoption refers to the degree to which employees use AI tools and systems in their daily work operations, including perceived usefulness, ease of use, and accessibility. This is measured through a structured survey using a Likert scale.

Employment Status refers to the type of employment arrangement of the respondent, such as full-time, part-time, or contractual.

Sex refers to the biological classification of the employee as male or female, as indicated in the demographic data.

Work Performance refers to the effectiveness and efficiency of employees in performing their job tasks, including task completion, service quality, productivity, and job effectiveness, as measured through self-assessment and survey items.

Years in the Company refers to the total number of years the employee has been continuously employed in the current tourism or hospitality organization.