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Artificial Intelligence Adoption Among Small and Medium Enterprises in the United Kingdom: Entrepreneurial Opportunities, Project Management Implications and the Productivity Paradox

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Abstract

The study examined the accelerating adoption of artificial intelligence (AI) among small and medium-sized enterprises (SMEs) in the United Kingdom during the 2025-2026 period, with particular attention to the entrepreneurial opportunities that AI creates and the project management implications for firms navigating digital transformation. Problem statement: While the UK Government's AI Opportunities Action Plan and its January 2026 progress update signal aggressive state-backed investment in national AI infrastructure, adoption at the SME level remains fragmented and yields limited financial return. Only twelve per cent of AI-using UK firms report AI-attributable revenue increases, revealing a persistent "productivity-profit gap." Methodology: The study adopts a systematic narrative review of secondary data, drawing on primary UK Government publications, industry benchmark reports, and peer-reviewed working papers published between January 2025 and June 2026. Sources include the Department for Science, Innovation and Technology (DSIT), the Office for National Statistics (ONS), the British Chambers of Commerce (BCC) in partnership with the University of Essex, TechUK, and independent consultancy benchmarks. Results: Active SME AI adoption rose from twenty-five per cent in 2024 to fifty-four per cent by early 2026, yet strategic deployment with defined business purpose remains at approximately sixteen per cent. Sectoral disparities are severe, with Information and Communication firms reporting adoption of forty-three to fifty-one per cent against six per cent in construction. Skills gaps (cited by over sixty per cent of firms), tool fragmentation, ROI uncertainty, and governance deficits are the principal barriers. An estimated £78 billion in economic value remains unrealised. Conclusion and policy recommendation: AI presents an unprecedented entrepreneurial opportunity and a corresponding project management challenge for UK SMEs. Government AI Adoption Hubs should embed formal project management frameworks alongside technical assistance, and SMEs should prioritise use-case-led deployment underpinned by clear governance, measurable key performance indicators, and workforce AI literacy investment.

Keywords: Artificial Intelligence, Small and Medium Enterprises, United Kingdom, Entrepreneurship, Project Management, Digital Transformation

1.0 Introduction

The United Kingdom is undergoing what the Department for Science, Innovation and Technology (DSIT, 2026a) has described as a decisive transition from AI ambition to AI delivery. In January 2025, the UK Government published the AI Opportunities Action Plan authored by Matt Clifford, setting out fifty recommendations across three pillars: investing in the foundations of AI; driving cross-economy AI adoption; and fostering homegrown AI champions (DSIT, 2025). A year later, the January 2026 progress update confirmed that thirty-eight of the fifty commitments had been met within the first twelve months, including a tenfold expansion of the AI Research Resource, the designation of five AI Growth Zones, and the launch of a £500 million Sovereign AI venture fund in April 2026 (DSIT, 2026a; CMS Law, 2026).

For entrepreneurs and project managers operating within small and medium-sized enterprises (SMEs), which constitute approximately ninety-nine per cent of the total UK business population (Mole Valley Chamber, 2026), these state-level developments coincide with a rapid maturation of accessible AI tooling. Microsoft 365 Copilot, ChatGPT, Sage Copilot, Xero's intelligence engine, and a proliferating array of sector-specific agents have moved from novelty to workflow infrastructure over an eighteen-month window (TC Group, 2026). The British Chambers of Commerce (BCC) and University of Essex Centre for Micro-Social Change (MiSoC) reported that fifty-four per cent of UK firms were actively using AI in the January 2026 wave of the Business Outlook Survey, up from thirty-five per cent in 2025 and twenty-five per cent in 2024 (Yotzov, Smietanka, Thwaites, & Wang, 2026).

This paper argues that the AI transition in the United Kingdom constitutes the most significant single trending phenomenon for entrepreneurship and project management scholarship in 2026. It presents opportunities of unprecedented scale, an estimated £78 billion in unrealised productive value if SMEs adopted AI at the rate of large enterprises (Microsoft & WPI Strategy, 2025), while simultaneously exposing a productivity-profit paradox in which adoption yields time savings but not top-line growth, and reveals significant deficits in the project management maturity required to convert AI experimentation into embedded business value.

1.2 Problem Statement

Despite headline adoption growth, three interlocking problems undermine the entrepreneurial and project management promise of AI for UK SMEs. First, the paradox of productivity without profit: DSIT (2026b) survey data show that approximately seventy-seven per cent of UK firms already using AI report no immediate change in overall revenue, and only twelve per cent report revenue increases attributable to AI. McKinsey (2025) reports the same pattern globally, finding that only about six per cent of organisations report meaningful financial returns from AI. This gap suggests that adoption absent disciplined project management yields limited enterprise value.

Second, sectoral and firm-size disparities are widening rather than narrowing. Information and Communications firms report adoption of forty-three to fifty-one per cent, financial services twenty-one to thirty-one per cent, and professional services twenty to twenty-eight per cent,

while construction lags at approximately six per cent (Helium42, 2026). Sole traders and micro-enterprises are considerably more likely than medium-sized firms to report no plans to adopt AI (Yotzov et al., 2026). Third, structural barriers persist: the skills gap is cited as the primary barrier by over sixty per cent of UK businesses (Helium42, 2026); only twenty-two per cent of firms have provided AI-specific governance training (Spicy Advisory, 2026); and tool fragmentation across disconnected subscriptions frustrates coherent project delivery.

There is therefore a pressing scholarly and practical need to examine the current state of AI adoption in UK SMEs through the joint lens of entrepreneurship and project management, and to articulate frameworks by which the productivity-profit gap may be closed.

1.3 Objectives of the Study

The general objective of this study is to critically examine trending patterns of artificial intelligence adoption among UK SMEs and their implications for entrepreneurship and project management practice. The specific objectives are:

- To document the scale, sectoral distribution, and firm-size distribution of AI adoption among UK SMEs in the 2025-2026 period.
- To identify the principal entrepreneurial opportunities created by state-led AI infrastructure investment, including the AI Growth Zones and the Sovereign AI venture fund.
- To assess the project management implications of the observed productivity-profit gap, including governance, skills, and use-case selection.
- To formulate practical and policy recommendations for closing the £78 billion unrealised value gap identified in current benchmark research.

2.0 Literature Review

2.1 Theoretical Literature

Three theoretical perspectives inform the analysis of AI adoption in SMEs. Rogers' (2003) Diffusion of Innovations Theory explains the S-curve trajectory of technology uptake through five categories of adopter, ranging from innovators through the early majority to laggards, with the rate of diffusion mediated by perceived relative advantage, compatibility, complexity, trialability, and observability. Applied to UK SMEs, Rogers' framework predicts that highly digitised sectors such as Information and Communications will exhibit early majority behaviour, while capital-intensive but process-conservative sectors such as construction will exhibit laggard characteristics, which is precisely the pattern that the DSIT (2026b) and Helium42 (2026) data confirm.

The Technology Acceptance Model (TAM), advanced by Davis (1989) and extended by Venkatesh and Bala (2008), posits that behavioural intention to adopt a technology is a function of perceived usefulness and perceived ease of use. In the AI context, generative interfaces such as ChatGPT and Microsoft Copilot have simultaneously improved perceived ease of use, through natural-language interaction, and perceived usefulness, through demonstrable time

savings in document generation, data analysis, and customer service. TAM therefore provides theoretical purchase on the sharp adoption acceleration between 2024 and 2026.

Barney's (1991) Resource-Based View (RBV) of the firm frames AI adoption as an attempt to acquire valuable, rare, inimitable, and non-substitutable (VRIN) resources. Critically, RBV predicts that AI adoption alone does not generate sustained competitive advantage; only firm-specific complementary capabilities in data, workflow integration, and organisational routines convert AI into VRIN resources. This prediction aligns with the empirical finding that firms with defined enterprise-wide AI governance outperform point deployments by a factor of three to five (Helium42, 2026), and directly informs the project management implications developed later in this paper.

2.2 Empirical Literature

Empirical evidence on AI adoption in the United Kingdom converges from three complementary streams. The first is UK Government primary research. The DSIT (2026b) AI Adoption Research, based on interviews with 3,500 businesses, distinguishes strategic deployment (approximately sixteen per cent of firms), planned deployment (five per cent), and non-adoption (approximately eighty per cent). The Office for National Statistics Business Insights and Conditions Survey Wave 141 (ONS, 2026) reports that twenty-three per cent of UK businesses were using at least one form of AI in late September 2025, up from nine per cent in September 2023.

The second stream is industry and chamber research. The BCC/University of Essex Business Outlook Survey working paper by Yotzov, Smietanka, Thwaites and Wang (2026) reports that fifty-four per cent of surveyed firms were actively using AI in January 2026, with a net productivity expectation of plus seventy-one per cent among current AI users compared with minus three per cent among firms with no adoption plans. QuickBooks' (2026) January survey reports seventy per cent of SMEs using AI regularly when embedded features in Microsoft 365 and accounting software are included, illustrating how definitional breadth shifts the headline figure.

The third stream is consultancy and benchmark literature. The Helium42 (2026) AI Adoption Benchmark Report synthesises sixty-five data points from DSIT, ONS, techUK, PwC, Deloitte, McKinsey, SAP, and the Stanford AI Index, and identifies the productivity-profit gap and skills deficit as the two most significant obstacles to value realisation. Microsoft and WPI Strategy (2025) estimate that AI adoption by SMEs could add £78 billion to the UK economy by 2035, a figure that has become the reference anchor for policy discussion. Aristral (2026) reports first-party client data showing an average £8.80 return for every £1 spent on AI automation, indicating that well-implemented programmes generate substantial ROI even where headline revenue effects are muted.

Two related literatures inform the project management dimension. Kerzner (2022) frames the shift toward agile and hybrid project management methodologies as prerequisites for effective digital transformation, while the Project Management Institute (PMI, 2024) documents the emergence of AI-augmented project delivery as a distinct competency area. However, the

intersection of AI adoption and project management maturity in UK SMEs remains under-researched, particularly outside large enterprise case studies.

3.0 Research Methodology

This study employs a systematic narrative review methodology (Baumeister & Leary, 1997; Grant & Booth, 2009), which is appropriate for synthesising a rapidly evolving evidence base drawn from official statistics, industry surveys, and grey literature. The review protocol proceeded through four stages: source identification, inclusion screening, thematic coding, and synthesis.

Sources were identified through structured searches of GOV.UK, the Office for National Statistics data catalogue, Google Scholar, the National Bureau of Economic Research working paper series, and industry consultancy publications. The search window was restricted to publications dated between January 2025 and June 2026 to capture the trending phenomenon under study. Inclusion criteria required that a source (i) present UK-specific data or analysis; (ii) address AI adoption, entrepreneurship, or project management; and (iii) be either government-issued, peer-reviewed, or published by a reputable industry body with disclosed methodology. Twenty-two primary sources met the inclusion criteria.

Thematic coding was applied to extract adoption statistics, sectoral distributions, identified barriers, government policy interventions, and productivity outcomes. Findings were then synthesised against the three-stage conceptual framework developed in Section 4.3. As a review study drawing exclusively on published secondary data, no primary data collection was undertaken and no formal ethics review was required. The principal limitation of the methodology is that adoption statistics reported by different sources are not strictly comparable owing to varying definitions of "AI use," a limitation flagged and mitigated by triangulation across DSIT, ONS, BCC, and industry sources.

4.0 Key Results and Findings

4.1 The Scale and Trajectory of Adoption

The evidence base establishes that AI adoption among UK SMEs has followed a step-change trajectory over the 2023-2026 period. Table 1 summarises the trajectory as reported by the BCC Business Outlook Survey.

Table 1: UK Firm AI Adoption Rates, 2023-2026 (BCC Business Outlook Survey)

Year	Adoption Rate	Change (pp)	Source
2023	23%	—	BCC (2023)
2024	25%	+2	BCC (2024)
2025	35%	+10	BCC (2025)
2026	54%	+19	Yotzov et al. (2026)

Adoption is however differentially distributed by measurement definition. DSIT (2026b) reports strategic deployment at sixteen per cent, ONS Wave 141 at twenty-three per cent for any AI use, BCC at fifty-four per cent for active use, and QuickBooks (2026) at seventy per

cent when embedded features in productivity software are counted. This definitional spread is itself a finding: SMEs are ubiquitously exposed to AI capability through their existing software stack, but comparatively few have made deliberate deployment decisions.

4.2 Sectoral and Firm-Size Distribution

The evidence reveals pronounced sectoral disparities. Table 2 summarises adoption across major sectors.

Table 2: Sectoral AI Adoption Rates, United Kingdom, 2026

Sector	Adoption Rate	Position
Information and Communications	43-51%	Leader
Financial Services	21-31%	Advanced
Professional Services	20-28%	Advanced
Healthcare	14%	Developing
Retail	12%	Developing
Education	10%	Developing
Construction	6%	Laggard

Source: Compiled from Helium42 (2026), DSIT (2026b), and Spicy Advisory (2026).

The construction sector's six per cent adoption rate is particularly striking given that AI use-cases in planning optimisation, safety monitoring, and predictive maintenance are well-established (Helium42, 2026). Firm-size disparities are similarly acute: sole traders and micro-enterprises of one to nine employees are significantly more likely than medium-sized firms to report no adoption intention (Yotzov et al., 2026). This dual disparity by sector and by firm size represents the principal target for entrepreneurial opportunity and project management intervention.

4.3 Barriers to Value Realisation

Five barriers recur across the evidence base and, taken together, explain the productivity-profit gap. The skills gap is cited as the primary barrier by over sixty per cent of UK businesses (Helium42, 2026); the OECD (2026) Digital for SMEs work finds more than half of SMEs surveyed cite insufficient internal skills as the main barrier. Tool fragmentation across disconnected AI subscriptions frustrates workflow coherence and inflates cost. ROI uncertainty and high upfront cost deter smaller firms in particular. A governance vacuum is documented by the finding that only twenty-two per cent of UK businesses have provided AI-specific governance training (Spicy Advisory, 2026). Finally, the absence of measurable KPIs prevents firms from evidencing return and thus from justifying scaling.

4.4 State-Led Entrepreneurial Opportunities

The AI Opportunities Action Plan (DSIT, 2025) and its 2026 delivery update (DSIT, 2026a) have created a set of distinct entrepreneurial opportunities. The five designated AI Growth Zones at Culham (Oxfordshire), the North East, North Wales, South Wales, and Lanarkshire will generate an estimated £28.2 billion in investment and more than 15,000 jobs (DSIT, 2026a). The £500 million Sovereign AI venture fund launched in April 2026 and chaired by

James Wise of Balderton Capital provides a government-backed source of growth capital for UK AI companies (The AI Insider, 2026). UK AI firms raised £6 billion in venture capital in 2025, up from £4 billion in 2024 and £2.6 billion in 2023, representing fifty-two per cent annual growth (DSIT, 2026a). Since January 2025, £68 billion in private investment has been pledged to UK AI.

For entrepreneurs, this state-level infrastructure is complemented by an expanding tools market. Gartner (2025) forecasts that forty per cent of enterprise applications will include task-specific AI agents by year-end 2026, up from less than five per cent in 2025. The emerging agentic AI paradigm, in which autonomous agents perform multi-step problem solving across departments, is identified by the Mole Valley Chamber (2026) as the principal opportunity for SMEs to scale without commensurate headcount increases in a high-cost UK labour market.

4.5 Project Management Implications

The empirical evidence points to project management maturity as the mediating variable between AI adoption and financial return. Organisations with enterprise-wide AI strategy and defined governance outperform point deployments by a factor of three to five (Helium42, 2026). Firms with a coherent AI portfolio approach report faster payback timelines (two to four years for mature programmes) and more consistent ROI. By contrast, firms adopting AI tool-by-tool without a governance framework predominantly report time savings without revenue growth, reproducing the productivity-profit gap identified by DSIT (2026b).

Three project management competencies emerge as critical. First, use-case selection: mature adopters begin from a defined business objective (invoice processing, customer service triage, sales lead qualification) rather than from a tool. Second, governance and risk management: AI-specific policies on data handling, prompt logging, human-in-the-loop review, and vendor risk are prerequisites for scaling beyond experimentation. Third, KPI definition and monitoring: mature adopters define baselines and target metrics before deployment and monitor actual against target throughout. These three competencies map directly onto established project management bodies of knowledge (PMI, 2024; Kerzner, 2022) but require AI-specific extension.

5.0 Conclusion

The evidence supports three conclusions. First, AI adoption in the UK is at a definitional inflection point: the question is no longer whether firms are exposed to AI capability, since most already are through embedded features, but whether they can convert that exposure into deliberate, governed, value-generating deployment. Second, the observed productivity-profit gap is not a property of AI technology but of adoption practice; the same evidence base that documents seventy-seven per cent of firms reporting no revenue effect also documents outsized returns for the minority that combine AI with disciplined governance. Third, closing the £78 billion unrealised value gap identified by Microsoft and WPI Strategy (2025) will require the intersection of entrepreneurship and project management as complementary competencies rather than as separate disciplines. Entrepreneurial vision identifies where AI creates value; project management maturity delivers that value at scale.

6.0 Recommendations

UK SMEs seeking to move beyond experimentation should adopt a use-case-led rather than tool-led approach. Deployment should begin from a specific, high-frequency, high-cost business process for which measurable KPIs can be defined, with human-in-the-loop review during initial rollout. Firms should invest in AI-specific governance training, targeting the twenty-two per cent baseline reported by Spicy Advisory (2026), and consolidate fragmented tool subscriptions around a single primary platform where possible. Finally, workforce AI literacy should be treated as a strategic investment rather than a discretionary cost, given the finding that skills deficit is the primary barrier for over sixty per cent of firms.

The UK Government's supply-side interventions through the AI Opportunities Action Plan are substantially delivered, with thirty-eight of fifty commitments met within twelve months (DSIT, 2026a). The next phase should emphasise demand-side capacity building. AI Adoption Hubs should embed formal project management frameworks alongside technical assistance, so that SMEs receive support not only in tool selection but in governance, KPI definition, and portfolio management. The proposed AI Security Health Check and Digital Twin diagnostic tools (DSIT, 2026c) should be integrated with project management competency frameworks. Sector-specific AI adoption programmes should prioritise construction, retail, and education, where adoption lags and the productivity uplift potential is greatest.

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