# Generative AI Delivers Productivity Boost Across UK Workplaces



Generative AI has moved rapidly from buzzword to boardroom priority, with UK businesses increasingly embedding the technology into everyday workflows. Its impact on productivity is becoming clear, particularly in roles where speed, information handling and routine decision-making are key.

Recent data shows that over half of UK businesses are piloting AI initiatives, and three-quarters of executives expect efficiency gains and cost reductions. In the US, 75 per cent of employees already use generative AI in some form. McKinsey estimates that generative AI could add between $2.6 and $4.4 trillion to the global economy annually, boosting productivity by up to 40 per cent in areas such as customer service, sales, software development and research.

Examples from across industries highlight its transformative potential. At a Fortune 500 software firm, genAI tools helped junior customer service agents close experience gaps, increasing their productivity by 34 per cent and raising overall resolution rates by nearly 14 per cent. In software development, GitHub Copilot has been shown to improve task completion by 26 per cent and cut coding times in half. In the legal sector, AI assistants have more than doubled lawyer output on routine tasks such as drafting and document review.

Smaller UK firms are also seeing gains, with productivity increases ranging from 27 to 133 per cent in areas like scheduling, inventory and document generation. These results suggest that AI adoption can begin with low-cost, accessible tools delivering rapid returns.

Academic studies support these findings. A Stanford experiment with professional writers using ChatGPT found a 40 per cent reduction in task time and an 18 per cent quality improvement. MIT Sloan research cautions that appropriate use of AI is essential—misapplication can lead to poorer outcomes.

AI’s impact is especially strong among less experienced workers, helping to raise their performance to match that of more seasoned colleagues. At a global consultancy, junior consultants using GPT-4 completed 25 per cent more tasks 12 per cent faster, with quality gains of over 40 per cent. In open-source software, AI-assisted developers saw a 6.5 per cent productivity lift, particularly among core contributors.

However, risks remain. “Shadow AI”—the unsanctioned use of public tools—poses data security and compliance threats. Businesses must address these risks through governance, staff training and close collaboration between IT, security and business teams to align AI deployment with organisational standards.

The message for UK firms is clear: generative AI offers a powerful means to tackle long-standing productivity challenges, not by replacing staff but by augmenting their capabilities. Organisations that adopt the technology responsibly—combining innovation with clear risk management—are best placed to lead in the AI-enabled economy.

By embracing secure, practical AI strategies now, UK businesses can build a more agile and inclusive future of work—one that empowers employees, improves performance and strengthens the UK’s position in responsible digital innovation.

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## Bibliography

1. <https://www.lpmmag.co.uk/blog/ai-at-work-the-productivity-revolution-iomart-oct25/> - Please view link - unable to able to access data
2. <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier?src_trk=em67e149e2cb7c11.41810280970919138> - McKinsey's research estimates that generative AI could add $2.6 to $4.4 trillion annually to the global economy, enhancing productivity by 15 to 40 percent. The majority of this value is expected to come from customer operations, marketing and sales, software engineering, and R&D sectors. The study also highlights the potential for generative AI to automate up to half of current work activities by 2045, significantly boosting labor productivity across various industries.
3. <https://www.stlouisfed.org/on-the-economy/2025/feb/impact-generative-ai-work-productivity> - A study by the Federal Reserve Bank of St. Louis found that 28% of U.S. workers used generative AI at work as of August 2024. Among these users, 9% reported daily use, and 14% used it at least once a week. The research indicates that generative AI is becoming an integral part of work routines, with users saving an average of 5.4% of their work hours, equating to approximately 2.2 hours per week in a 40-hour workweek.
4. <https://scale.stanford.edu/ai/repository/experimental-evidence-productivity-effects-generative-artificial-intelligence> - A Stanford study examined the impact of ChatGPT on mid-level professional writing tasks. The experiment involved 453 college-educated professionals, with half using ChatGPT. Results showed a 40% reduction in time spent on tasks and an 18% improvement in output quality for those using the AI tool. The study also noted a decrease in inequality among workers and an increase in both concern and excitement about AI's role in the workplace.
5. <https://mitsloan.mit.edu/ideas-made-to-matter/how-generative-ai-can-boost-highly-skilled-workers-productivity> - MIT Sloan research indicates that when used within its capabilities, generative AI can improve a worker's performance by nearly 40% compared to those not using it. However, when AI is used beyond its intended scope, worker performance can decrease by an average of 19 percentage points. The study emphasizes the importance of understanding AI's limitations to maximize its benefits in enhancing productivity.
6. <https://arxiv.org/abs/2510.12049> - A field experiment involving millions of users and products at a leading online retail platform found that integrating generative AI into consumer-facing business workflows significantly increased sales, with treatment effects ranging from 0% to 16.3%. The study highlights that smaller and newer sellers, as well as less experienced consumers, experienced disproportionately larger gains, suggesting that generative AI can enhance productivity across various segments of the retail industry.
7. <https://arxiv.org/abs/2410.02091> - Research on the impact of GitHub Copilot, a generative AI pair programmer, in open-source software development revealed a 6.5% increase in project-level productivity. The study found that core developers achieved greater productivity gains from using Copilot, benefiting more in terms of individual productivity and participation compared to peripheral developers. The research underscores the role of AI pair programmers in enhancing productivity within the open-source community.