

# Current Impacts on Productivity in the Construction Industry and Strategies to Combat Them

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The construction industry plays a pivotal role in the global economy, contributing significantly to infrastructure development. However, like any other sector, it faces challenges that impact productivity. This article explores the current impacts on productivity in the construction industry and proposes strategies to combat them.

#### **Labor Shortages**

One of the primary challenges faced by the construction industry is the shortage of skilled labor. As demand for construction projects increases, there is a growing gap between the need for skilled workers and the available workforce. Latest studies indicate that for every five skilled workers that are retiring, only three are being replaced. That's a 40% reduction in the workforce. This shortage leads to delays in project timelines and increased labor costs and is not going away anytime soon.

To combat this, investing in vocational training programs, partnering with educational institutions, and implementing apprenticeship initiatives can help bridge the skills gap. Additionally, the industry can leverage technology to automate repetitive tasks, reducing the dependency on manual labor. A successful implementation of a preconstruction, design and prefabrication strategy can also reduce the demand on labor hours required for final installation.

## **Technology Adoption**

While technology has the potential to revolutionize the construction industry, the slow adoption of new technologies remains a significant impediment to productivity. Many construction firms still rely on outdated methods and tools, hindering efficiency and innovation. Those that are performing far above their peers consistently adopt, implement and train to the latest technologies to assist in providing smooth project construction.

To address this, industry stakeholders should prioritize technology integration. This includes implementing Building Information Modeling (BIM) for project planning and management, utilizing drones for site

surveys, and embracing automation in construction processes. Training programs can ensure that the workforce is equipped to leverage these technologies effectively. This step is most often not executed. No one knows how to effectively use the new "tool" to solve the problems it was intended to solve.

### **Regulatory Challenges**

Stringent regulations and compliance requirements contribute to delays in construction projects. Navigating complex permitting processes and ensuring compliance with safety standards can lead to increased project timelines and costs.

To combat regulatory challenges, the construction industry should actively engage with regulatory bodies to streamline processes. Investing in robust project management systems that facilitate compliance tracking and reporting can also help ensure that projects adhere to regulatory requirements.

#### Supply Chain Disruptions

Global events, such as the COVID-19 pandemic, have highlighted the vulnerability of construction supply chains. Material shortages and price fluctuations can significantly impact project costs and timelines.

To mitigate supply chain disruptions, construction firms should diversify their supplier base, maintain transparent communication with suppliers, and explore local sourcing options. Strategic stockpiling of critical materials and contingency planning can also enhance resilience in the face of unforeseen disruptions. Some firms are purchasing long lead time items in larger quantities to ensure inventory when installation time arrives.

#### **Environmental Sustainability**

Increasing awareness of environmental issues has led to a shift towards sustainable construction practices. While this is a positive development, it also introduces new challenges in terms of material sourcing, waste management, and adherence to green building standards.

To address sustainability challenges, the construction industry can prioritize the use of eco-friendly materials, implement waste reduction strategies, and adopt green building certifications. Collaboration with environmental experts and organizations can provide valuable insights and guidance in adopting sustainable practices.

#### Conclusion

In conclusion, the construction industry faces multifaceted challenges that impact productivity. Most of the demands come from the project owners who want the project completed in the shortest duration possible to flip the project from an expense during construction to a revenue stream when complete and occupied. As an industry we are faced with ever shortening project schedules, a 40% reduction in available skilled labor to complete the ever growing demand of construction services. Said differently, more work, less time to perform it in, with less resources. Addressing labor shortages, embracing technology, navigating regulatory landscapes, mitigating supply chain sustainability are crucial aspects of enhancing productivity in the construction sector. By implementing strategic initiatives and fostering collaboration among industry stakeholders, the construction industry can overcome these challenges and pave the way for a more efficient and sustainable future.

#### **About the Author**

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