

The AI-Driven Transformation of Flooring Businesses with Flooring OS

Introduction

Flooring OS is a software company that equips flooring professionals with cutting-edge technology that simplifies processes, improves customer outcomes, and accelerates growth and profitability. The software product explored in this case study is an AI-powered enterprise resource planning platform. It integrates a comprehensive suite of software tools that include CRM, Purchasing, Inventory, Lead & Sales Tracking, Accounting Tools, Estimation & Job Cost Analysis, Analytics & Reporting, and the ability to seamlessly integrate with third-party apps. This adaptable solution is designed to cater to the unique needs of residential and commercial flooring businesses as well as builders and distribution centers, empowering users to make data-driven decisions, prioritize customer satisfaction, and boost ROI.

By harnessing the power of AI, this adaptable solution provides real-time insights and streamlines operations for local flooring stores as well as multi-faceted enterprises, whether within a specific niche that requires specialized solutions or spanning multiple related sectors. Within the broader market, AI is being quickly embraced as companies recognize that compelling results can be reliably delivered at a reasonable cost. Indeed, a recent survey conducted by Forbes Advisor found a majority of "... businesses are adopting AI for a variety of applications such as customer service, customer relationship management (CRM) and cybersecurity. They are also focusing on improving customer experience through personalized services, instant messaging and tailored advertising. Additionally, AI is enhancing internal business processes such as data aggregation, process automation and SEO tasks."¹

The underlying business logic for adopting this technology is clear: "Fundamentally, artificial intelligence is about the ability to use algorithms to define patterns. Once you recognize the patterns, you can eventually predict them. And once you can predict them, you can prescribe meaning."² It is through these predictive capabilities that AI can deliver unrivaled results when compared with more-traditional business tools, and Flooring OS provides a simple and affordable means for flooring professionals to leverage the full power of this new technology.

Further, it is becoming increasingly clear that the choice to ignore AI tools while competitors embrace them will ensure your company gets left behind. In the words of Roy Dekel, CEO of SetSchedule, "We can't shy away from AI anymore because the old ways of conducting business are not going to be enough. We must change and embrace brave, transformative technologies such as AI to build better business futures."³

All these elements make a compelling business argument for the market potential of Flooring OS.

Industry Analysis

Pressures are mounting within the software development business that demand a different approach. According to TechBullion, "One of the biggest challenges for software engineering companies is the systemic change within the industry... [that] are forcing software firms to rapidly adjust their processes. These systemic changes are leading to increased IT expenditure, with IT leaders predicted to triple their spending on new environments. However, even with increased spending, software companies are struggling to achieve the necessary operational efficiency gains."⁴ These factors converge at a time when an AI-fueled technological revolution has begun that empowers organizations with previously unimaginable capabilities.

This AI-driven market shift has quickly become a paradigm-changing element within the business software market. The latest McKinsey Global Survey, "... confirms the explosive growth of generative AI (gen AI) tools. Less than a year after many of these tools debuted, one-third of our survey respondents say their organizations are using gen AI regularly in at least one business function."⁵ Such rapid adoption is in no small part due to the undeniable economic benefits for the companies who have been swift to embrace this technology. Indeed, the economic projections are impressive: "AI is expected to contribute a significant 21% net increase to the United States GDP by 2030, showcasing its impact on economic growth."⁶

Current business use cases for AI are already quite broad, as noted in the recent Forbes Advisor survey, "The most popular applications include customer service, with 56% of respondents using AI for this purpose, and cybersecurity and fraud management, adopted by 51% of businesses. Other notable uses of AI are customer relationship management (46%), digital personal assistants (47%), inventory management (40%) and content production (35%). Businesses also leverage AI for product recommendations (33%), accounting (30%), supply chain operations (30%), recruitment and talent sourcing (26%) and audience segmentation (24%)."¹

The trend toward rapid adoption of AI and enhanced reach within business operations will continue apace. Gartner anticipates this will include:

- "By 2024, 40% of enterprise applications will have embedded conversational AI, up from less than 5% in 2020.
- By 2025, 30% of enterprises will have implemented an AI-augmented development and testing strategy, up from 5% in 2021.
- By 2026, generative design AI will automate 60% of the design effort for new websites and mobile apps.
- By 2026, over 100 million humans will engage robocolleagues to contribute to their work.
- By 2027, nearly 15% of new applications will be automatically generated by AI without a human in the loop, which is not happening at all today.
- More than 55% of all data analysis by deep neural networks will occur at the point of capture in an edge system by 2025, up from less than 10% in 2021."⁷

Flooring OS's AI Software Overview

FlooringOS has been developed over the past year, leveraging input gathered through a decade of experience working directly with industry organizations and leaders. Further, it has taken a truly unique approach by developing a targeted product for the flooring industry that integrates artificial intelligence into the platform. Its powerful custom reporting capabilities enhance business decision making, while generative AI language models offer employees much-needed assistance with composing emails, SMS messages, and sales scripts.

Core features by market segment:

Residential: Harmonizes every facet of the business. Data syncs automatically across the platform, with real-time updates on job statuses, orders, materials, and more. Simplified precision estimating is possible thanks to the job costing formulas that have been tailored to specific overheads and operational parameters of the individual company. Direct supplier integrations enable one-click access to vendor catalogs, pricing updates, and more. Data-driven reporting provides up-to-the-minute insights into the business, finances, labor, and product profitability.

Commercial: Provides powerful functionality built specifically for the commercial flooring sector. Integrated estimation capabilities allow users to import key details such as quantities, costs, and bid information directly from leading commercial flooring estimating tools. The Project Management Command Center provides a holistic view of all active endeavors in a single, user-friendly dashboard. Real-time project tracking keeps work-in-progress entries accurate at all times to facilitate business decision making. Phased billing capabilities allow for progressive billing that improves cash flow. A diverse array of customizable AIA reports can be printed directly onto AIA forms or exported to Excel.

Builder: Every update, every change, is instantly reflected across all departments, ensuring project details, materials, and schedules align flawlessly. Advanced material tracking capabilities are tailored to keep builder industry dealers informed about their on-hand materials and reservations. Multiple sales orders can be efficiently processed from a single payment, streamlining the tracking and management of customer payments. Outstanding bills can be handled with account holds that ensure no additional resources are allocated until pending bills are cleared, with interest automatically applied to overdue accounts. Batch billing allows for simplified invoicing of multiple clients. Pre-configured, intuitive templates auto-populate with relevant details, slashing manual data entry times.

Distribution Centers: The system manages all elements in the flooring distribution process, for seamless coordination from inventory through to delivery. Inventory control ensures everything availability of all needed materials, with or without barcoding. Valuable industry-specific features, from unit measurements to fcB2B electronic supplier transfers, improve efficiency. Data is always synced in real-time across the entire system, and comprehensive customer account details are easily accessible, for unparalleled customer service.

Market Need and Problem Addressed

Historically speaking, “[t]he flooring industry is notoriously slow at adopting new technology.”⁸ This leads many flooring businesses to remain reliant on inefficient manual processes that waste time and resources. In addition, information sharing across departments is often lacking, which creates problems within teams and results in missed opportunities. Further, the absence of centralized data collection and analysis severely hinders companies’ potential for making the data-driven business decisions that help ensure predictable outcomes.

Flooring OS introduces automation capabilities to various aspects of the business, from sales orders to job costing and billing. This streamlines operations, reduces errors, and ultimately saves businesses valuable time and money. It introduces data integration and real-time updates that keep all teams aligned, informed, and able to respond to opportunities in a cohesive way. The platform’s powerful, integrated AI features give businesses the ability to harness data-driven insights that facilitate better-informed decisions, more optimized processes, and improved overall performance.

Many of the software options in the flooring market are expensive and do not cater specifically to the unique needs of the industry. Flooring OS stands out as a cost-effective solution that is fully tailored to the specific needs of flooring businesses, which makes the value proposition exceptionally appealing within the industry. Better still, the platform is highly adaptable and can be configured to be equally suitable for related sectors that need specialized software solutions. This combination of a highly targeted platform that is also broadly versatile makes Flooring OS a truly unique offering in the market.

By effectively addressing these significant, unmet needs in the flooring industry, Flooring OS brings genuine value to the target market by offering real-time data integration, AI-powered insights, and cost-effective solutions that help streamline operations, improve customer experiences, and drive sales.

FlooringOS Empowers Floor de Lis to Transform Flooring Operations

Background

Floor de Lis, based in Alabama, has established itself as a key player in the flooring industry, specializing in wholesale and retail of high-quality flooring materials. The company maintains a strategic partnership with a prominent property management firm in New York City, managing three upscale high-rise buildings. In this collaborative venture, Floor de Lis needed a robust software solution to streamline their flooring operations, including inventory management, purchasing, quoting, order processing, financial tracking, and remote accessibility.



Challenges faced by Floor De Lis

Manual Processes: Prior to adopting Flooring OS, Floor de Lis was grappling with manual processes for creating purchase orders, managing inventory, and tracking deliveries. These inefficiencies led to delays, errors, and resource-intensive operations.

Lack of Flooring-Specific Software: The company was relying on generic accounting software like QuickBooks, which couldn't address the unique requirements of the flooring industry. They needed specialized software tailored to their business.

Complex Financial Management: Managing accounts receivable (AR) and accounts payable (AP) proved challenging, given the volume and complexity of transactions involved in their wholesale and retail operations.

Coordinating Deliveries: Coordinating deliveries to high-rise buildings in New York City required meticulous scheduling and real-time updates, which was a cumbersome task without the right tools.

Remote Accessibility: With a growing business and partnership, Floor de Lis required a solution that offered remote accessibility, allowing them to access critical business data from anywhere, anytime.

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Solution

Flooring OS emerged as the solution to Floor de Lis' complex operational needs. This flooring-specific software offered a comprehensive suite of features that transformed their business operations:

Streamlined Inventory Management: Flooring OS allowed Floor de Lis to efficiently track flooring materials, manage dye lots, and maintain an up-to-date inventory. No longer burdened by manual processes, they could make data-driven decisions to optimize their stock levels.

Tailored Flooring Software: Unlike generic accounting software, Flooring OS was tailored to the unique demands of the flooring industry. It provided dropdown lists of unit measurements like square feet, square yards, etc., enabling precise calculations for their materials.

Efficient Financial Tracking: The software simplified AR and AP management, ensuring that financial transactions were recorded accurately, and they always had a clear view of their financial health.

Delivery Coordination: Flooring OS's real-time project tracking feature helped Floor de Lis coordinate deliveries seamlessly, providing them with insights into project status and enhancing their project efficiency.

Remote Accessibility: With Flooring OS, Floor de Lis could access their software and critical business data from anywhere, empowering them to make informed decisions and stay connected even when they were away from the office.

Results and Benefits

The adoption of Flooring OS delivered significant benefits to Floor de Lis:

Streamlined Operations: Manual processes were replaced with automated, efficient workflows, reducing errors and enhancing overall efficiency.

Tailored Flooring Solutions: Flooring OS provided specialized features tailored to their flooring business, ensuring precision in calculations and processes.

Financial Clarity: With improved AR and AP management, Floor de Lis gained greater financial clarity, enabling better decision-making.

Delivery Efficiency: Real-time project tracking facilitated efficient delivery coordination, improving customer satisfaction.

Remote Accessibility: The ability to access the software remotely empowered Floor de Lis to manage their business effectively from anywhere.

Floor de Lis' partnership with Flooring OS has not only revolutionized their flooring operations but has also strengthened their collaboration with the high-end property management firm in New York City. By embracing a flooring-specific software solution, Floor de Lis has positioned itself for continued growth, efficiency, and success in the competitive flooring industry.

Data and Analytics

Early data suggests the business use of integrated artificial intelligence is here to stay. Adoption rates are soaring, and companies are planning to increase their investment in leveraging this technology as it matures. The overall economic projections for the impact of AI capabilities on the business market are genuinely staggering.

Adoption Rates

- “The share of organizations that have adopted AI overall remains steady, at least for the moment, with 55 percent of respondents reporting that their organizations have adopted AI.”⁹
- “Organizations, too, are now commonly using gen AI. One-third of all respondents say their organizations are already regularly using generative AI in at least one function—meaning that 60 percent of organizations with reported AI adoption are using gen AI. What’s more, 40 percent of those reporting AI adoption at their organizations say their companies expect to invest more in AI overall thanks to generative AI, and 28 percent say generative AI use is already on their board’s agenda.”⁹

Future Investment Projections

- “...40 percent of respondents say their organizations will increase their investment in AI overall because of advances in gen AI.”⁹
- “Generative AI’s impact on productivity could add trillions of dollars in value to the global economy. Our latest research estimates that generative AI could add the equivalent of \$2.6 trillion to \$4.4 trillion annually across the 63 use cases we analyzed—by comparison, the United Kingdom’s entire GDP in 2021 was \$3.1 trillion.”¹⁰

ROI Projections

- “...our analysis estimates generative AI could contribute roughly \$310 billion in additional value for the retail industry (including auto dealerships) by boosting performance in functions such as marketing and customer interactions.”¹⁰
- “A new Omdia survey asked respondents if AI has driven topline revenue, reduced bottom line costs, improved efficiency/automation and improved customer experience/customer satisfaction. The answers were a startling affirmation of the potential of AI to transform companies – at least 54% of respondents said they are currently measuring positive results of 1% or more and at least 14% seeing 11% or more, depending on the category.”¹¹
- “For every \$1 companies invest in AI, they are realizing an average of \$3.5 in return and 5% of organizations worldwide are realizing an average of \$8 in return.... Organizations are realizing a return on their AI investments within 14 months of deployments on average.”¹²

Disruptive Potential of AI in Software Industry

Artificial intelligence technology has been in the pipeline since the 1950s, but until recently, it was not a practical solution for most companies. But now, AI capabilities are rapidly becoming both affordable and genuinely useful in a broad array of business categories and for companies at every scale. This creates a particularly enticing opportunity for leveraging this disruptive technology in currently underserved niches.

As recently explained in Forbes, "Small businesses face a significant challenge in today's digital landscape - competing against larger, well-resourced enterprises. However, the solution may lie in embracing Artificial Intelligence, a technology that can revolutionize how small businesses function and compete.... Proper planning, implementation and ongoing refinement of AI strategies can yield long-term rewards, catapulting small businesses to the forefront of brand awareness and innovation."¹³

One need only look to the success of ChatGPT for evidence of affordable AI's disruptive impact. The platform launched in November 2022 and became the fastest-growing platform in history within just 5 days. Indeed, according to McKinsey, "Generative AI use cases are already taking flight across industries. Financial services giant Morgan Stanley is testing the technology to help its financial advisers better leverage insights from the firm's more than 100,000 research reports. The government of Iceland has partnered with OpenAI in its efforts to preserve the endangered Icelandic language. Salesforce has integrated the technology into its popular customer-relationship-management (CRM) platform."¹⁴

The predictions for continued market growth for AI technologies are impressive. As reported by Statista's Maïke Schlumbohm, "the market is expected to experience explosive growth. In fact, analysts predict an annual growth rate of 38%, with the market set to reach \$1.5 trillion by 2030. To put that into perspective, the AI market's projected value exceeds that of the pharmaceutical market and the alcoholic beverage markets worldwide."¹⁵

In addition, the opportunities for leveraging AI technology within niche industries have never looked more promising. As articulated by Forbes Councils Member, Yanick Steinbeck, "Pretty much every industry is now ripe for having its workflows automated, its quality improved, its creativity amplified and its level of abstraction raised with the advent of the reasoning-as-a-service engines that the AI revolution has blessed us with."¹⁶

Challenges and Limitations

There are both technical and ethical challenges associated with the implementation of artificial intelligence. As noted by industry expert Jing Huang, “AI isn’t logical or ethical, on its own. AI is a great impersonator, but it will never be a person. It only mimics human patterns. Human involvement and validation will always have a place in AI.”¹⁷

This limitation can be easily missed by those using it, however, as the information and insight these systems generate can seem so thoughtful. Most users do not understand that the mechanics underlying AI’s impressive capabilities are simply patterns that have been mapped into black-box algorithms using machine learning. This can lead to an inappropriate level of trust and responsibility being handed over to such systems, and that can lead to poor outcomes.

In a very real sense, these machine-learning systems have no idea what they are actually doing. They are simply spitting out results based on the patterns they recognized during training. The training comprises exposure to vast sets of sample data whereby the system identifies patterns on its own—which is why the resulting algorithms are considered black-box. No one has explained to the system what the intended goal of training was, and the system cannot explain what exactly makes up the recognized pattern. Worse still, what is and is not included in the training data set can lead the system to silently identify biased patterns.

If not carefully implemented, the black-box nature of machine learning means the insights and information offered by an AI system can be catastrophically flawed in terms of ethics or correctness, or both. Fortunately, today’s developers can constrain AI in ways that effectively prevent the system from providing flawed information that might go unrecognized by users. For example, extremely thorough testing can establish that an algorithm accurately compiles metrics or completes specific tasks, and therefore, can safely be leveraged in a platform; or explicit programming can ensure predictable execution of an underlying business logic through rule-based systems. Further, generative capabilities can be limited to situations in which a human can review and edit as needed.

In addition to the general limitations of AI, Flooring OS has been implemented as a solely cloud-based solution. This means customers must have internet access to make use of this powerful platform. However, given the ubiquity of always-on connectivity within the business world, this limitation seems unlikely to present a significant barrier to adoption in the target market.

Finally, because the flooring industry is in a fairly expensive product sector, competition among software producers seeking to target flooring professionals is fierce. There are large, established players in this market space, and that presents a potent barrier to entry for new platforms. However, the inclusion of affordable yet powerful AI features in an industry-specific platform, enables Flooring OS to readily overcome this limitation with a genuinely unique value proposition.

Conclusion

Flooring OS stands at the forefront of targeted technological innovation in the software industry, providing flooring professionals with a transformative AI-powered enterprise resource planning platform. The comprehensive suite of software tools offers a unique, versatile, and adaptable solution catering to the unique, unmet needs of residential and commercial flooring businesses, builders, and distribution centers.

The adoption of AI in the broader market is gaining momentum, with businesses across sectors quickly embracing it for various applications and planning to increase such investments in the future. Flooring OS's AI-powered solution aligns with this trend, offering real-time insights and operational streamlining that are tailor-made for flooring companies. The powerful capabilities of AI provide unrivaled results compared with traditional business tools, yet Flooring OS is the only option offering AI integration in the flooring space. Further, the product has been carefully developed to fully compensate for the worrying aspects of AI technology by limiting features to only those that are proven to deliver reliably, so customers can trust that they will not be exposed to unwanted risks.

It is clear there is currently a hole in the market for an affordable, user-friendly AI solution that targets flooring professionals, and Flooring OS is a strategic choice for businesses both large and small that want to stay efficient and competitive. In a landscape where AI is increasingly becoming a business imperative, Flooring OS emerges as a compelling option that enables companies to make data-driven decisions, prioritize customer satisfaction, and boost ROI in the rapidly evolving digital era.

References

- ¹ Forbes Advisor. 2023. How Businesses Are Using Artificial Intelligence In 2023, viewed December 21, 2023, <https://www.forbes.com/advisor/business/software/ai-in-business/>
- ² Harvard Professional Development Blog. 2023. What's the Future of AI in Business? viewed December 21, 2023, <https://professional.dce.harvard.edu/blog/whats-the-future-of-ai-in-business/>
- ³ Entrepreneur. 2023. Why Every Company Should Be Thinking About Artificial Intelligence viewed December 22, 2023, <https://www.entrepreneur.com/science-technology/why-every-company-should-start-embracing-ai/456879/>
- ⁴ TechBullion. 2023. The Future of Software Development: A Glimpse into the Next Decade viewed December 23, 2023, <https://techbullion.com/the-future-of-software-development-a-glimpse-into-the-next-decade/>
- ⁵ McKinsey. 2023. The state of AI in 2023: Generative AI's breakout year viewed December 23, 2023, <https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai-in-2023-generative-AIs-breakout-year/>
- ⁶ Forbes Advisor. 2023. 24 Top AI Statistics And Trends In 2023 viewed December 23, 2023, <https://www.forbes.com/advisor/business/ai-statistics/>
- ⁷ ZDNet. 2023. The future of generative AI: Here's what technology analysts are saying viewed December 23, 2023, <https://www.zdnet.com/article/the-future-of-generative-ai-heres-what-technology-analysts-are-saying/>
- ⁸ FC News. 2023. Engaging profitably with artificial intelligence viewed December 22, 2023, <https://www.fcnews.net/2023/11/engaging-profitably-with-artificial-intelligence/>
- ⁹ McKinsey 2023. The state of AI in 2023: Generative AI's breakout year viewed January 10, 2023, <https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai-in-2023-generative-ais-breakout-year>
- ¹⁰ McKinsey 2023. The economic potential of generative AI: The next productivity frontier viewed January 10, 2023, <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier#industry-impacts>
- ¹¹ Omdia 2023. 2023 study shows substantial AI ROI viewed January 10, 2023, <https://www.prnewswire.com/news-releases/omdia-2023-study-shows-substantial-ai-roi-301848144.html>
- ¹² IDC 2023. The Business Opportunity of AI viewed January 10, 2023, <https://news.microsoft.com/source/wp-content/uploads/2023/11/US51315823-IG-ADA.pdf>
- ¹³ Forbes. 2023. How Small Businesses And Entrepreneurs Can Benefit From AI viewed January 9, 2023, <https://www.forbes.com/sites/elijahclark/2023/11/30/how-small-businesses-and-entrepreneurs-can-benefit-from-ai/?sh=739eb9646843>
- ¹⁴ McKinsey. 2023. Exploring opportunities in the generative AI value chain viewed January 9, 2023, <https://www.mckinsey.com/capabilities/quantumblack/our-insights/exploring-opportunities-in-the-generative-ai-value-chain>
- ¹⁵ CMSWire. 2023. The Future of AI: What's Next for the World's Most Disruptive Technology? viewed January 9, 2023, <https://www.cmswire.com/digital-experience/the-future-of-ai-whats-next-for-the-worlds-most-disruptive-technology/>
- ¹⁶ Forbes. 2023. An Examination Of The AI Opportunity Landscape viewed January 9, 2023, <https://www.forbes.com/sites/forbesbusinesscouncil/2023/11/16/an-examination-of-the-ai-opportunity-landscape/?sh=7ea59d80f1ea>
- ¹⁷ Information Week. 2023. AI Isn't Fully Explainable or Ethical (That's our Challenge) viewed January 9, 2023, <https://www.informationweek.com/machine-learning-ai/ai-isn-t-fully-explainable-or-ethical-that-s-our-challenge->