

The logo for Tech-Clarity, featuring the word "Tech-Clarity" in a bold, sans-serif font. "Tech" is in white and "Clarity" is in yellow, both set against a dark blue rounded rectangular background.

Tech-Clarity

***Product Lifecycle
Management
Beyond Managing CAD***

***The Business Value of
Enterprise PLM***



Table of Contents

Executive Overview	3
Benefits of Product Lifecycle Management	*
Putting PLM in the Business Perspective.....	*
Battling Complexity.....	*
Combatting the Business Impacts of Complexity	*
Identifying the Top Performers	*
Adopting a Process-Centric PLM Approach	*
Expanding PLM Across the Enterprise.....	*
Expanding PLM Across the Supply Chain.....	*
Explore the Relationship Between PLM and PDM	*
Integrating PLM with Other Systems	*
Taking a Process versus Data-Centric View	*
What about the Cloud?.....	*
Conclusion.....	4
Recommendations	4
About the Author	4
About the Research.....	5

***This summary is an abbreviated version of the report and does not contain the full content. A link to download the full report is available on the Tech-Clarity website, www.tech-clarity.com.**

If you have difficulty obtaining a copy of the report, please contact the author at jim.brown@tech-clarity.com.

Executive Overview

The concept of Product Lifecycle Management (PLM) software and the reality do not always match. PLM software started as a way to expand the value of Product Data Management (PDM) by adding additional information such as release status, BOMs, and ECOs. But the real promise of PLM – supporting enterprise-level processes for product innovation, product development, and engineering – offers much higher, strategic value.

So why haven't more companies taken advantage of the benefits of process-centric PLM? Some of the reason is historical, because most early PLM systems were really CAD data management with some added features. But another part is simply how important good data management is. As Tech-Clarity's recent [The Facts about Managing Product Data](#) shows, "*PDM's ability to help companies control, access, and share product data is a powerful tool that helps companies improve top- and bottom-line performance.*"

We surveyed over 200 companies to understand if they take a data management or process-centric view of PLM.

PDM adds value on its own and is a logical starting point. But many implementations stop there, while others continue on to support more processes. Alternatively, today's modern, enterprise-focused PLM systems offer the opportunity to start with processes in the first place. So which drives higher value, a data-centric or process-centric approach? We surveyed over 200 companies to understand if they take a data management or process-centric view of PLM to find out. We identified the "Top Performers," those that excel beyond their peers in revenue growth, margin expansion, innovation, and cost reduction, and analyzed their PLM approach to see what leads to better performance.

Process-centric, Enterprise PLM drives better business performance, but PDM capabilities are an important value driver.

The survey results lead us to believe that process-centric, Enterprise PLM drives better business performance, but also finds that core PDM capabilities are an important value driver. Specifically, the survey finds that Top Performers are more likely to:

- Execute processes that go beyond the technical definition of the product to the commercial aspects of the offering
- Leverage more advanced PLM processes including cost and quality management
- Have more departments and third parties using PLM
- Use core PDM capabilities more than "Others"
- Tightly integrate PDM and PLM
- Integrate PLM with other enterprise information systems and engineering tools

Conclusion

The data overall supports that Top Performers' PLM implementations have some significant differences than those of the lesser-performing Others. Specifically, they implement more advanced processes, involve more departments outside of Engineering, share PLM with more third parties, and integrate PLM with a host of other solutions.

The survey leads us to the conclusion that process-centric PLM drives better business performance. But the data also clearly shows that core PDM capabilities are an important value driver and that Top Performers are more likely to manage CAD and tightly integrate PDM with PLM, even if it's not a single, unified solution. The final word, then, is that process-centric PLM can provide significant value beyond managing CAD and product data, but that those basic capabilities should not be overlooked either.

Recommendations

Based on industry experience and research for this report, Tech-Clarity offers the following recommendations:

- Take PLM beyond core PDM and CAD data management capabilities
- Expand PLM to more people, including management, others outside of Engineering, and the supply chain
- Leverage PLM to support more advanced processes
- Integrate data management tightly with PLM, even if it's not a single solution
- Integrate with enterprise solutions
- Integrate with engineering tools
- Consider cloud PLM as an option to support process-centric PLM

About the Author

Jim Brown is the President of Tech-Clarity, an independent research and consulting firm that specializes in analyzing the business value of software technology and services. Jim has over 20 years of experience in software for the manufacturing industries. He has a broad background including roles in industry, management consulting, the software industry, and research. His experience spans enterprise applications including PLM, ERP, quality management, service lifecycle management, manufacturing, supply chain management, and more. Jim is passionate about improving product innovation, product development, and engineering performance through the use of software technology.

Jim is an experienced researcher, author, and public speaker and enjoys the opportunity to speak at conferences or anywhere he can engage with people with a passion to improve business performance through software technology.

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About the Research

Tech-Clarity gathered and analyzed over 200 responses to a web-based survey on the use of PLM systems. Survey responses were gathered by direct e-mail, social media, and online postings by Tech-Clarity and Autodesk.

The respondents were comprised of about one-half (48%) who were manager or director level, almost one-third individual contributors (31%), and the remainder included VP or executive levels. The majority of the participants (69%) were from engineering disciplines including product design / engineering, industrial / manufacturing engineering, and plant / facilities engineering. Another 14% represent manufacturing.

The respondents represented a mix of company sizes, including 28% from smaller companies (less than \$100 million), 34% between \$100 million and \$1 billion, 23% between \$1 billion and \$5 billion, and 15% greater than \$5 billion. Company sizes were reported in US dollar equivalent.

The responding companies were a good representation of the manufacturing industries, serving Industrial Equipment / Machinery (22%), Building Products and Fabrication (21%), Consumer Packaged Goods (21%), Automotive (17%), High-tech and Electronics (15%), Aerospace and Defense (14%), Consumer Products (11%), Life Sciences / Medical Devices (10%), and others. Note that these percentages add up to greater than 100% because some companies indicated that they serve more than one industry. Just over one-half (54%) are OEMs with the majority of the rest from the manufacturing supply chain.

The respondents reported doing business globally, with the vast majority doing business in North America (84%), over one-third doing business in Western Europe (35%), and about one-third doing business in the Asia-Pacific regions (31%), Eastern Europe (15%), and Latin America (11%). Note that these percentages add up to greater than 100% because some companies indicated that they are active in more than one geography.

Respondents included manufacturers as well as service providers and software companies, but responses from those determined not to be directly involved in designing and/or manufacturing products (including software vendors and consultants) were not included in the analysis.