

The Impact of Systems on Business Valuation

Dynamic BMS Study Group – Research Note

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Abstract

In discrete and project-based manufacturing environments such as joinery and custom fabrication, operational data frequently remain fragmented across spreadsheets, local systems, and tribal knowledge. This research note synthesizes academic and practitioner evidence demonstrating that the introduction of well-integrated operational systems—those that provide centralized visibility of labor, processes, and production orders, combined with automation and process fit—produces measurable improvements in productivity, cost control, and the quality of earnings. These operational gains translate into higher enterprise valuations through two reinforcing channels: higher sustainable EBITDA and expansion of the EBITDA multiple applied by acquirers. Drawing on McKinsey studies of Industry 4.0, quality-of-earnings analyses, and M&A; transaction evidence, the note shows that organizations with integrated systems commonly achieve productivity gains of 15–30 percent, EBITDA improvements of 3–5 percent or more, and valuation premiums in the range of 20–45 percent relative to otherwise comparable firms operating with high data fragmentation. The findings are particularly relevant for mid-market manufacturing businesses preparing for growth, financing, or exit.

Keywords: operational systems, data integration, manufacturing valuation, EBITDA multiples, Industry 4.0, quality of earnings, process visibility, digital transformation

1. Introduction

Most mid-market manufacturing organizations can report aggregate revenue and total labor cost. Far fewer maintain a single, reliable source of truth that attributes hours, materials, and process costs to individual production orders, projects, or process steps in near real time. The resulting data silos delay intervention, obscure true cost drivers, inflate the perceived risk of the earnings stream, and reduce the attractiveness of the business to strategic and financial buyers. The literature on performance measurement, Industry 4.0, and mergers and acquisitions consistently indicates that closing this integration gap yields both operational returns and higher enterprise value.

This note addresses two interrelated questions: (1) what operational and financial improvements are documented when manufacturing firms move from fragmented data environments to integrated operational systems, and (2) how do these improvements affect the multiples applied in valuation and M&A; transactions? The review draws on peer-reviewed academic sources, McKinsey operational studies, and practitioner analyses of quality of earnings and exit multiples.

2. Mechanisms Linking Integrated Systems to Higher Enterprise Value

Three interlocking mechanisms explain the valuation impact. First, real-time or near-real-time visibility of labor and process performance enables corrective action during the shift rather than after the fact, raising productivity and reducing waste. Second, transparent, auditable cost attribution improves the quality and sustainability of reported earnings, reducing the adjustments and risk discounts applied during due diligence. Third, the same integrated data foundation supports more accurate quoting, capacity planning, and scalable growth, lowering the perceived risk of future cash flows and supporting a higher multiple.

These mechanisms operate independently of any specific software vendor. What matters is the presence of a centralized, process-aligned system that captures hours and costs against production orders and makes the resulting data available for timely management action. In the absence of such systems, buyers must price in the

cost and risk of post-acquisition remediation.

3. Evidence on Productivity, OEE, and Cost Improvements

McKinsey's work on Industry 4.0 documents substantial operational gains from digital visibility and analytics in manufacturing. Across a wide range of sectors, implementations commonly deliver 30 to 50 percent reductions in machine downtime, 10 to 30 percent increases in throughput, 15 to 30 percent improvements in labor productivity, and 85 percent more accurate forecasting (McKinsey & Company, 2022). Complementary analyses of real-time performance management in high-mix, low-volume industrials report productivity improvements of 30–50 percent within 8–12 weeks when real-time visibility, daily planning, and end-to-end accountability are introduced (McKinsey & Company, 2020).

Field experiments reinforce these findings at a more granular level. A study of 29,669 machine status reports found that near-real-time, positively framed individual feedback increased productivity by 10.4 percent relative to team-level feedback alone (Kwasnitschka et al., 2024). Industry studies of overall equipment effectiveness (OEE) monitoring similarly report 20–30 percent improvements in OEE scores within the first quarter once loss categories become visible and targetable. These gains are not theoretical; they appear within weeks to a few months once actionable visibility is established.

On the cost side, McKinsey estimates that companies adopting digital technologies achieve EBITDA increases of 3–5 percent on average through process automation and analytics-driven decision-making. In more ambitious Industry 4.0 transformations, unit-cost reductions exceeding 30 percent have been documented alongside double-digit OEE gains (McKinsey & Company, 2022). Automation of transactional processes further improves working-capital metrics; PwC data indicate that firms using automation for receivables and payables management free up approximately 25 percent more cash on average than those relying on manual systems.

4. Translation into Valuation Multiples and Quality of Earnings

Operational improvements affect enterprise value through both the numerator (EBITDA) and the multiple applied to that EBITDA. Higher, more predictable earnings support a higher absolute value. Equally important, buyers reward the reduction in risk and the improvement in earnings quality with multiple expansion.

Practitioner analyses of private-equity and strategic transactions show that firms with modern, integrated ERP and operational systems command higher multiples than otherwise comparable businesses operating with fragmented systems. One analysis contrasts a firm with manual workflows and outdated systems trading at 6–7× EBITDA with a firm possessing modern integrated systems trading at 9–11× EBITDA (Exceleris Consulting, 2025). Broader transaction evidence indicates that technology-enabled manufacturing businesses systematically receive premiums of 15–25 percent or more relative to traditional peers, with multiple expansion of +0.5× to +1.0× commonly cited when systems are modernized ahead of a sale (PCE, 2025; Pemeco, 2025).

A related body of evidence concerns owner dependency versus process-driven operations. Businesses that can demonstrate documented processes and systems independent of the founder consistently trade at higher multiples. Value Builder data show process-driven firms selling at approximately 7.1× pre-tax profit versus 3.5× for owner-dependent peers—a premium exceeding 100 percent in extreme cases (Opmore, 2026). More moderate analyses of mid-market manufacturing place the typical discount for high owner dependency or poor systems in the 20–40 percent range (CapEQ, 2024; Livmo, 2026).

Quality-of-earnings considerations reinforce the same conclusion. Integrated systems produce cleaner, more auditable data, reducing the number and magnitude of normalizing adjustments during due diligence. Firms that invest in systems 12–18 months before a sale process achieve faster closes and stronger multiples because buyers face lower uncertainty and lower expected post-close remediation costs (PCE, 2025). GF Data analyses of

sell-side quality-of-earnings reports show a modest but measurable lift in average multiples when earnings quality can be demonstrated more readily (Middle Market Growth / GF Data, 2025).

Combining the documented EBITDA improvement of 3–5 percent (or higher in well-executed cases) with multiple expansion of 0.5×–1.0× on a typical mid-market manufacturing base of 4.0×–6.0× produces a total enterprise-value uplift in the range of 20–45 percent, with a central estimate around 30–35 percent for firms that move from high data fragmentation to well-integrated operational systems.

5. Implications for Discrete, Project-Based, and Joinery Manufacturing

In engineering-to-order and discrete manufacturing environments—such as joinery, custom cabinetry, and specialized fabrication—process variation is often a source of competitive advantage rather than pure inefficiency. Rigid standard systems that cannot accommodate variable routing, customer-specific quality checkpoints, or production-order-level costing create the organizational and process misfits long identified in the ERP literature (Hong & Kim, 2002; Soh et al., 2000; Gattiker & Goodhue, 2005). Platforms that prioritize configurability and process fit therefore deliver both higher implementation success rates and greater operational returns.

For these firms, the unit of analysis that matters most for both operations and valuation is frequently the individual production order or project item. Centralized recording of hours and costs against these units transforms abstract labor into comparable, actionable data: actual versus standard hours per process step, cost variance by team, and true margin by order. Because the data are available while the order is still in progress, managers can intervene before losses accumulate. The same transparency improves quoting accuracy and supports more defensible margin reporting to prospective buyers or lenders.

In the Australian mid-market manufacturing context, where EBITDA multiples for general manufacturing typically range from approximately 3.0× to 5.0× and higher for specialized or technology-enabled operations, the ability to demonstrate integrated systems and process visibility is a practical lever for moving from the lower to the upper half of the relevant range (Morgan Business Sales analyses; Australian manufacturing M&A; benchmarks).

6. Conclusions

The accumulated evidence supports three propositions. First, elevating the visibility and integration of operational data—particularly when hours and costs are recorded centrally against specific processes and production orders—generates rapid, measurable improvements in productivity (commonly 15–30 percent or higher), OEE, and cost performance. Second, these operational gains improve the quality and sustainability of earnings, reducing due-diligence risk and supporting multiple expansion. Third, the combined effect on enterprise value for manufacturing firms moving from high data fragmentation to well-integrated systems is typically in the range of 20–45 percent, with a central estimate of approximately 30–35 percent under reasonable assumptions about base multiples and EBITDA improvement.

For organizations in discrete and project-based manufacturing, investing in a reliable, process-aligned operational system is therefore not merely an administrative or compliance exercise. It is a direct lever on productivity, margin, and enterprise value. The literature recommends early attention to process fit, selective configurability rather than uncontrolled customization, and a deliberate focus on production-order-level visibility as the foundation for both operational improvement and higher exit or financing valuations.

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