

# CSCMP hottopics

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## Improving the Odds of Delivering Measurable ERP Benefits: *Seven Steps to Success*

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### INTRODUCTION

Deriving value from an enterprise resource planning (ERP) transformation is not an unrealistic goal. What is troubling, however, is how many firms fail to realize any top- or bottom-line improvements from their ERP transformations; according to Gartner, up to 75% of these do not meet their objectives. Based on this disconcerting trend, Liberty Advisor Group has developed an ERP benefit process and tracking asset to consistently identify, scrutinize, and validate opportunities.

Regardless of how successful a go-live milestone may be, an ERP system alone will not bring about incremental growth and savings. Achieving value targets requires careful analyses of revenue, profit and cost centers at the onset of an engagement, along with stakeholder collaboration throughout the assessment, to ensure outcome goals are realistic and achievable. Taking all of this into account, a resource planning system should be viewed strictly as a tool that facilitates value creation.

Before reviewing Liberty's method to deliver benefits, several terms require definitions to prevent any misunderstanding due to differences in usage (Table I).

**TABLE I: BENEFIT DEFINITIONS**

Term	Definition
Hard Benefit	A direct and measurable benefit that impacts top and/or bottom lines; e.g., average annual cost of goods sold reduced by 2%
Soft Benefit	An intangible benefit that improves operations, administration, etc.; e.g., time spent on paperwork reduced by 25%
Recurring Benefit	A continuous benefit that is realized within a specific time interval; e.g., renegotiated contract resulted in an annual savings of \$1M
One-Time Benefit	A benefit that is not continuous and results in a new baseline once established; e.g., reduced days sales outstanding creates a one-time working capital uplift of \$600K

### LIBERTY'S METHOD TO IDENTIFY AND VALIDATE BENEFITS

Our approach to benefiting from an ERP transformation is simple and intuitive. Seven key elements are illustrated below, using an automotive supplier example.

#### I. Identify Departments/Functions that Stand to Realize Benefits from an ERP

ERP software packages have been on the market for decades and, as a result, departments that will likely benefit from such a solution are well understood.

For a manufacturer's supporting operations – such as Purchasing, Inventory/Warehouse Management, QC/QA and Finance – ERPs are well suited to track and record transactions because they are structured and repetitive tasks.

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For Sales & Marketing, Product Engineering, and Manufacturing there are potential benefits as well. However, compared with supporting operations, these tend to involve more dynamic and complex processes and have outcomes that are more uncertain and may not materialize for months or even years. Therefore, tailored solutions are required for each specific workflow:

- Customer relationship management (CRM) enables Marketing to manage the entire sales lifecycle – from a fledgling opportunity to a successful booking, and the evolving metadata that accompanies the progression of deals.
- Product lifecycle management (PLM) facilitates the complete development of products – from concept to engineering validation and commercialization, and providing in-market feedback for revisions and future generations.
- Manufacturing execution systems (MES) are designed to run factories at the workstation level, manage multiple shopfloor configurations, and enable the flow of data across equipment. This provides granular visibility into process and discrete manufacturing and assembly procedures, and the ability to increase WIP and EOL yield at optimal costs.

To learn more about MES, please refer to Liberty's 2020 publication [here](#)

## 2. Add Departmental Stakeholders as Integral Team Members

Without the support of each department, validating benefit targets will be difficult. Senior leadership can mandate compliance but this increases the likelihood of resentment, leading to unnecessary iterations and resistance to calculated outputs. Once potentially affected functions are known, Liberty works with program sponsors and department leadership to integrate stakeholders into decision-making. This upfront effort promotes inclusion and encourages members to contribute to the benefit process.

## 3. Propose Value Drivers

Liberty's combined ERP and industrial experience has enabled the firm to create a repository of functional value drivers, which serve as a starting point for this phase of the engagement. The complete list, however, comes from the stakeholders based on their knowledge of departmental operations, current issues, and potential opportunities. As with brainstorming, Liberty documents ideas without initial analysis to ensure maximum input from participants is captured.

## 4. Investigate, Categorize and Prioritize Value Drivers

All proposed value drivers are not equally plausible or beneficial and, as such, Liberty uses a system to gauge and rank each proposal. The definitions in Table 1, coupled with timing to realize benefits and their relevance to the client, establish a consistent and repeatable basis for comparison. With the framework in place, Liberty's first step is to analyze costs or revenues for each driver. Examples may include:

- Purchasing: Annual vendor spend per category across product lines
- Warehouse Management: Annual excess and obsolete inventory expense
- Quality Control (QC)/Quality Assurance (QA): Work-in-progress (QC) and end-of-line (QA) scrap rates and associated expense
- Agency Management: Annual agency spend
- Sales & Marketing: Lost sales of an available product/SKU
- Manufacturing: Maintenance, repairs and operations inventory expense due to reactive maintenance
- Manufacturing: Overtime (OT) production spend per year
  - If manufacturing OT stems from increased demand where customers are willing to pay the incremental labour charge then this value driver is not applicable
  - Conversely, OT is in scope if it is required to meet normal demand levels and regular production schedules

Once potentially affected functions are known, Liberty works with program sponsors and department leadership to integrate stakeholders into decision-making.

Stakeholders are responsible for providing the value driver data, and Liberty calculates the total cost and revenue numbers based on the timeframe under investigation. Twelve or 24 trailing months are, generally, acceptable to reflect current operational conditions and support projected benefits.

Once calculated, Liberty discusses benchmark improvement ranges with stakeholders, ensuring that the client's input is reflected in all yardsticks. This is an important step because these ranges set the foundation for projected benefits. Furthermore, Liberty has compiled benchmarks from previous projects and can provide guidance. The following automotive example demonstrates this approach:

- A wire harness auto supplier procures a connector from three different vendors whose products' technical attributes and performance specs are equivalent
- Total connector spend for the last 12 months was \$25M, and signed commercial contracts run for five years
- Benchmarks suggest that consolidating the supply base to two vendors may lead to a piece-price savings of 3% to 5%
- The projected annual benefit range is \$0.75M to \$1.25M

With proposed benefits calculated, each value driver is categorized using the comparison method described at beginning of section 4. Based on the results, a priority ranking is recommended. Continuing with the automotive example, the purchasing value driver would be classified and ranked as follows:

**TABLE 2: CATEGORIZING THE PURCHASING VALUE DRIVER**

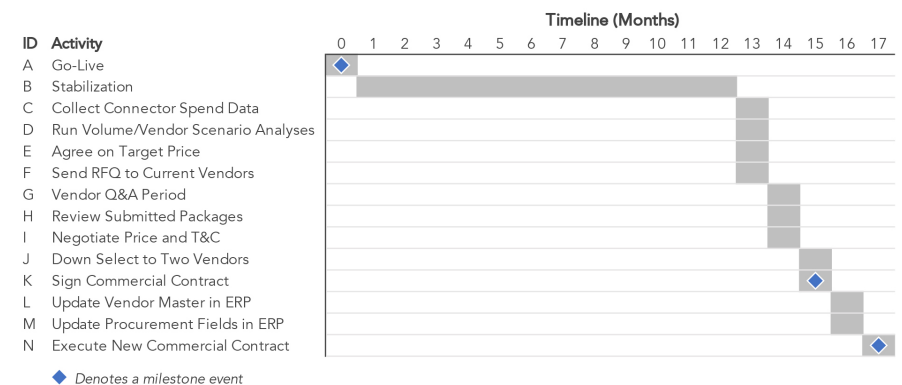
Value Driver	Projected Annual Benefit Range	Benefit Type	Frequency	Time to Realize Benefit	Strategic Importance	Priority
Purchasing / Supply Base Consolidation	\$0.75M to \$1.25M	Hard (Direct material cost savings)	Recurring (Annual cost savings)	>16 months post go-live (Stabilization period requires ~1 year)	High (Improved margins are a top priority)	Top Tier (Size of hard benefit & strategic significance)

*Note: Rationale for classifications and priority ranking is indicated by italicized font*

**5. Recommend Actions to Deliver Benefits**

As mentioned at the start of this paper, ERPs may enable benefits but they do not automatically deliver them. Achieving outcomes requires tactical planning with an understanding that benefits may not materialize until after the stabilization period. The following plan depicts recommended actions and timelines to realize a lower connector piece-price for the automotive example (Figure 1). This re-emphasizes that a majority of the work is done outside of the enterprise solution.

**FIGURE 1: RECOMMENDED PLAN TO REALIZE A NEW PIECE-PRICE**



Achieving outcomes requires tactical planning with an understanding that benefits may not materialize until after the stabilization period.



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The above plan is not etched in stone; rather, Liberty uses it as a level-set for clients to understand the entirety of what is likely to be required to attain a targeted outcome.

#### **6. Review and Iterate to Achieve Alignment with Stakeholders and Sponsors**

Liberty's proven ability to help clients achieve realistic outcomes is a result of two factors:

- I) Hands-on ERP and industry experience
- II) Close collaboration with client stakeholders

Once Liberty's proposed benefits and corresponding plans are available, stakeholder meetings are held to review the approach and underlying assumptions, and to revisit benchmarks. These conversations ensure that there is general consensus around forecasted numbers and the proposed activities and timeframes required to support financial objectives.

It is important to recognize that stakeholder feedback is an iterative process. In Liberty's experience, three to four rounds are the norm where clients largely concentrate on computed benefits; this is expected given that stakeholders will ultimately own the targets. To achieve alignment with its customers, Liberty is transparent about the calculus and, where appropriate, modifies inputs and assumptions to better emulate stakeholders' operational experiences.

To bring this into focus, the proposed benefit range from the auto example is revisited. During the iterative review process, purchasing stakeholders mention that previous negotiations for similar categories led to price reductions of <1%. Not wanting the client to "leave money on the table," it is noted that prior to this company-wide ERP engagement, it was not possible to determine complete category consumption across all product lines. At the end of the stabilization period, however, a thorough connector volume- pricing scenario analysis will be feasible and better position the client to achieve a lower piece-price. The client agrees and modifies the range from 3%–5% to 2%–4%, a benefit of \$0.5M to \$1.0M.

The final step in Liberty's procedure is to review the agreed-to benefit ranges and recommended plans with the program's sponsors. Senior leadership typically defaults to stakeholders as they perform the day- to-day operations. There are occasions, though, when leadership disagrees with the findings and, based on examples among Liberty's previous ERP projects, directs the team as follows:

- I) Straight override where stakeholders are required to meet leadership's targets
- II) Revisit value drivers and determine what is required to increase benefit ranges
- III) Determine how to realize benefits on a tighter timeline

For the second and third scenarios, Liberty will work with the stakeholders to restart the process where assumptions, benchmarks, and plans are scrutinized for improvement opportunities.

#### **7. Document Future Opportunities and Rejected Value Drivers**

As mentioned earlier in this article, Liberty documents and maintains the value drivers and their underpinning assumptions, inputs, benchmarks, and outcomes in its ERP benefit asset. Over the course of the engagement, some of the proposed value drivers will likely be deemed out of scope (OOS), rejected due to infeasibility, or disqualified because the effort required to realize the benefit is too great.

Regardless of whether a value driver is precluded, Liberty captures these proposals for two reasons:

- They serve as lessons learned, which continually enhance the client's and Liberty's understanding of value drivers and related benefits
- Those deemed OOS are captured as future opportunities that the client can pursue once the stabilization period has concluded

Framing a problem or an opportunity and recommending a procedure to address either one is an important aspect of Liberty's operating model.



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Beyond recording future prospects, Liberty takes an additional step and details recommended actions to realize OOS benefits. Returning to the automotive example, the following is an OOS value driver that could deliver a future benefit:

- Engineering and Product Management identify a sub-assembly standardization initiative across several product lines that requires a technical/commercial trade-off study
- ERPs are not designed to manage engineering specs and, consequentially, the driver is deemed OOS
- To support the client, a proposed post-stabilization action plan is prepared where:
  - At the end of stabilization, 12 months of commercial data are extracted from the ERP for in-scope variants of the sub-assembly
  - An engineering study is executed for sub-assembly functional specs and application-level performance requirements across in-scope product lines
  - Based on outcomes, sub-assemblies that met functional specs and delivered performance requirements across in-scope product lines are placed on a shortlist
  - Based on a commercial data analysis, the most expensive sub-assemblies are eliminated from the shortlist
  - A new piece-price analysis is performed to identify a cost target for the reduced number of sub-assembly variants that have increased volume levels
  - A request for quote (RFQ) process is executed with vendors
  - Once the new, lower piece-price is agreed upon, commercial contracts are signed
  - ERP vendor and product masters are updated, along with applicable fields in the procurement module
  - New contracts in the ERP system are executed

## CLIENT CASE STUDY

Framing a problem or an opportunity and recommending a procedure to address either one is an important aspect of Liberty's operating model. That said, Liberty's clients expect quantifiable results that cut costs and/or boost topline. To demonstrate that the ERP benefit process is actualized, the following case depicts how Liberty applies its methodology to substantiate "hard benefits" once a central ERP program is implemented and stabilized.

### Background

A manufacturer of durable goods – whose global annual revenue is approximately \$1B USD – had grown through acquisitions over several years. When Liberty was contracted to assess the company's enterprise footprint and operations, the client was running multiple business units (BUs) with disparate ERPs.

Compounding matters, several legacy ERPs were no longer vendor supported and the staff responsible for maintaining the solutions were nearing retirement.

Liberty's objective was to identify the right, centralized ERP for the BUs to manage their operations. Further, the client was cost sensitive due to the pandemic's impact and wanted to understand which benefits an ERP would facilitate.

### Actions and Outcomes

Liberty analyzed each BU's operations to establish a baseline and understand differences across the divisions. It became apparent that complexity extended beyond incongruent ERPs as there were notable differences in manufacturing – specifically:

- One BU adhered to a lean production methodology
- Another was a mix of process, discrete and assembly manufacturing
- There were shops that dealt solely with discrete and assembly procedures

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The supporting departments were equally complicated and pertinent functions, such as inter-company transfers and sales and operations planning (S&OP), were chiefly done outside of the varied enterprise systems.

Given the client's objective of centralizing the ERP, Liberty and the stakeholder-partners followed the benefit process to identify and validate value drivers. After several months of iterative and collaborative work, the outcomes were agreed upon and approved by the CFO and VP of Operations (Table 3).

**TABLE 3: SUMMARY OF HARD BENEFITS (000s)**

Department	Recurring	One-Time
Secondary Operations	\$5,700	\$10,100
Primary Operations	\$1,900	–

## ABOUT LIBERTY ADVISOR GROUP

Liberty Advisor Group is a goal-oriented, client-focused and results-driven consulting firm. We are a lean, handpicked team of strategists, technologists and entrepreneurs – battle-tested experts with a steadfast, start-up attitude. Our team, with an average of 15+ years of experience, has delivered over \$1 billion in operating income improvement and over 300 M&A deals for our clients. We collaborate, integrate and ideate in real-time with our clients to deliver situation-specific solutions that work. Liberty Advisor Group has the experience to realize our clients' highest ambitions. Liberty has been named to the 2019 Best Places to Work in Chicago and to FORTUNE's list of Best Workplaces in Consulting and Professional Services.

## ABOUT THE AUTHOR

Alex Jay is a Principal at Liberty Advisor Group. Alex spent 14 years in the automotive industry, nearly 13 of which were with the Ford Motor Company. His automotive roles include Dimensional (GD&T) Engineer, Product Development Engineer, Six Sigma Black Belt, Business Analyst, and Engineering Change Management Lead. As a consultant, he focuses on product lifecycle strategies, with an emphasis on commercialization, and improving supply chain operations with tech-based solutions that lead to measurable outcomes. Alex earned his B.A.Sc. (Chemical Engineering) from the University of Waterloo and his MBA from the Ross School of Business at the University of Michigan.