

Mobile Inventory Management





WHITE PAPER

Mobile Inventory Management

Why conduct a business case?

Companies now require a thorough business case and ROI analysis before approving capital expenditure, especially for IT projects like enterprise application software and automated data solutions. These projects can significantly impact business processes and reveal unexpected savings.

Producing reliable estimates

Transform your mobile inventory and manufacturing operations with FlexiPro. Our world-class consulting team brings decades of expertise in enterprise mobility and Oracle Supply Chain Management. Mobility and streamlining Oracle business processes are in our DNA. Our assertive experts will work closely with your team to leverage best practices and deliver a superior end-user experience with FlexiPro.

Questions to ask when Conducting business cases

- ☒ How much will this project really cost?
- ☒ What can the company expect to gain in return?
- ☒ Where will the company see process improvement?
- ☒ What quantifiable cost reductions can be expected?
- ☒ How will this project impact the company's bottom line?
- ☒ How does this compare with competing projects?



INVESTMENT

Identifying potential gains across the enterprise

A business case is a document that aims to justify expenditures for new equipment, employees, or software applications. It serves as a budgeting or appropriations requirement, but it can also identify potential enterprise gains. Operational and management personnel work together to develop quantitative evidence to substantiate the anticipated ROI on the requested expenditure. This dynamic process produces a reliable business case, a practical document for executives with fiscal responsibility for the project.



IMPACT

Identify affected operations

To begin crafting your business case, it is crucial to identify all operational areas within the organization that the capital investment will impact.

- Inventory Optimization and Reduction of Material Handling
- Order Packing / Shipment Preparation
- Order Picking
- Shipping
- Cycle Count / Inventory Control
- Customer Returns
- Management Control Metrics
- Employee Morale and Turnover
- Customer Service
- Space Utilization
- Associated Facility Costs
- Receiving
- Putaway



ADVISORY

Assemble a team of internal experts

A team of internal experts, including key operational and management personnel, should be assembled for a brainstorming session to evaluate a project's impact on Customer Returns. The focus should be narrow, avoiding a narrow focus that doesn't produce valuable data. The team should include Accounts Receivable and Customer Service representatives, ensuring a consensus on the project's effects on the primary area. This approach ensures that the data produced is relevant and valuable.

- Revenue enhancers
- Labor efficiency improvements
- Cost savings
- Business process change



STRATEGY

Determine where gains are possible

The team of internal experts conducts a brainstorming session to identify potential areas for the project that could yield a potential Return on Investment (ROI). The goal is to increase revenue and labor efficiency and reduce costs. The viability of each idea will be discussed later in the process. Some ideas require additional documentation, so capturing relevant details during the brainstorming session is crucial. The team should explore all ideas and list anticipated ROI items.



LAUNCH

Getting Started

The mobile inventory management example provides ideas to initiate discussions among your team of experts.

- Reduce labor and/or increase productivity in warehouse processes
- Improve inventory traceability
- Eliminate excess inventory
- Recover and maximize warehouse space
- Reduce paper usage
- Improve order accuracy, on-time shipping and fill rates
- Improve management control progress reporting
- Improve asset utilization
- Better control of inventory from better accuracy and visibility

FIGURE 1

Your team of experts will generate ideas for process improvements to help:



Improve Efficiency
(reduce process steps)



Reduce Costs
(eliminate errors & repetition)



Increase Revenue
(as processes improve)

FIGURE 2

9%

Error
reduction

2%

Sales
increase

3 hr/day

Labor
reduction

FIGURE 3

Gaining business value through process improvement



Keystroke errors
(Reduce costs)



Data entry
(Improve efficiency)



Receiving accuracy
(improve efficiency)



Lead time reduction
(increase revenue)



Label cost
(reduce costs)



New bin assignment
(improve efficiency)



Material movement
(improve efficiency)



P.O. Audit
(reduce costs)

DATA POINTS

Determine where ROI is viable

The team evaluates the items identified during their ROI brainstorming session to determine which operational areas can yield viable gains from the project. They need to reach a consensus on each idea and quantify its potential ROI. Some ideas may not be feasible, while others may be feasible but challenging to quantify. Those ideas will be excluded from the analysis if a consensus cannot be achieved. The final ROI analysis should incorporate only quantitative data that the team agrees to support, and they must be open to measurement if the actual return on capital investment is in progress question.

Figure 4 quantifies one area, which will be added to the totals of each location to calculate ROI accurately.

Figure 3 cannot quantify certain items in Figure 4, so it's crucial to identify the project's potential impact on other organizational areas and repeat this process for each operational group affected by or benefit from the desired capital investment.

FIGURE 4



Lead time reduction
(increase revenue)



Data entry
(improve efficiency)



P.O. Audit
(reduce costs)



Keystroke errors
(reduce costs)



New bin assignment
(improve efficiency)



Material movement
(improve efficiency)



Label costs
(reduce costs)



Receiving accuracy
(improve efficiency)

Total: 4.5 HRS/Day



ANALYTICS

Calculate expected gains

Calculate expected gains from quantitative data by sizing it on an annualized basis using multipliers provided by operational or financial executive management.

Calculating Labor Savings

Calculate the total labor hours saved per year in all operational areas covered by the ROI analysis to determine potential savings from improved labor efficiency. If necessary, break these hours out by pay type or rate. Multiply these hours by the appropriate pay rate. If headcount reduction is a component, use the fully burdened rate, including employee benefits. If labor efficiency is improving, only the hourly rate should be applied.

Calculating ROI From Revenue Increases

To determine the ROI of revenue increases, use audited financial results or budgetary sales plans. The primary goal is to create an ROI analysis that justifies the desired capital expenditure



FORECAST

Formulas

ROI is the average annual income increase (savings) as a percentage of project cost, calculated using the formula:

Annual ROI = Annual Savings / Initial Project Cost

The target ROI for most projects is 25% annually, which means a project will pay for itself in four years, one year less than the depreciable life of an asset. In extreme cases, cloud-based inventory management systems can see ROI as quickly as one year or sooner. The formula for determining the payback date is:

365 Days / Annual ROI + Go-Live Date = Payback Date



RESULTS

Compare estimated costs

The organization has considered all areas impacted by the desired capital expenditure, examining potential areas for increased revenue, labor efficiency, and reduced costs. Potential savings have been quantified, and potential ROI calculations have been aggregated to estimate the total potential ROI for the desired capital expenditure. The project's projected return on investment is now being compared.

**SUMMARY****Attention to Detail**

The analysis of procurement and capital expenditure is crucial, considering all items related to the project. It's important not to overlook small or unusual spending that may be unique to the project. This attention to detail will show financial decision-makers that the analysis was conducted wholly and accurately. For example, in mobile inventory management, this list might include expenditures for inventory management.

- Procure mobile and/or fixed devices for automated data capture
- Mark all locations with barcodes or RFID tags
- Place product labels on all items that aren't correctly labeled (manufactured or vendor supplied)
- Add additional electronic checkpoints and validation within a process to notify the operator if an error is encountered
- Automate manual processes
- Provide automated interfaces to third party packages (e.g., UPS, FEDEX, etc.), eliminating manual keying and ensuring accurate delivery charges are calculated
- Consider license plating to reduce transactions on individual serial numbers and lot numbers
- Consider wave management and picking to reduce material handling costs
- Contract for maintenance or annual support

In Conclusion

Below is a breakdown of the process to produce an effective business case, centered on reliable results and tangible benefits to be gained across the organization:

- Identify affected operations
- Assemble a team of internal experts
- Identify specific areas for ROI gains
- Determine where ROI is viable
- Calculate expected ROI
- Compare estimated ROI with costs