

Financial Intelligence Synopsis Value DynamiX

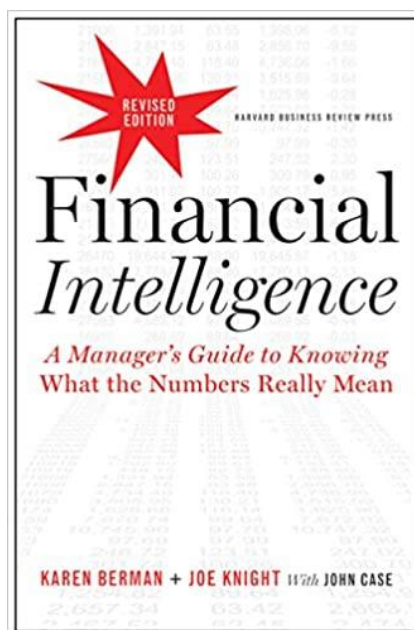


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Financial Intelligence Synopsis

Financial Intelligence Introduction

Financial Intelligence positions you to understand the financial and strategic realities of entities, to understand the entities' tactics and capabilities, and to predict their intentions. Financial Intelligence is essential for understanding the behavior and reporting by that entity. The entity's business objectives, or what the owners want and define as Value, are primary drivers for behavior throughout the organization.

"Strive not to be a success, but rather to be of value." – Albert Einstein

What the Owners Want – How they define Value

Business Objectives– The business drivers will vary, depending on the stage of existence. In startup mode, cash is King. Profit and Assets become most important during near term steady state. Ultimately, growth and people become critical to sustaining the business. The following are typical drivers: Growth in revenue, growth in profit, strong balance sheet, growth in stock/market value, best tax affect, potential credit, bonuses impact, suppliers/customers perceptions. Any of the business drivers will influence behavior.

Business Objectives drive Behavior

Behavior - The behavior includes their strategies, tactics, initiatives, and individual decisions that may or may not be aligned to the business objectives. While the behaviors are factual, the interpretation of the facts includes considerable latitude on definition, inclusion, interpretation – and this latitude is utilized in support of the entity's business objectives. These interpretations are derived from the assumptions stated in the reports.

Assumptions Behind the Reports

Reporting - A company will report performance and periodic positions in their Income Statements and Balance Sheets respectively, as well as report their Cash Flows. The importance of the Income Statement, Balance Sheet, or Cash Flow varies from company to company, depending on the lifecycle of the company. While comparative and time-based numbers are important, the assumptions that are documented in their notes for each report provide invaluable insight on how new decisions and investments can be positioned in a business case.

Considerable Latitude on Justification of the Investment

A **Business Case** for any investment requires an understanding of the numbers, and the assumptions. For example, if the investment is capital equipment, what are the assumptions on how many years to depreciate? If the investment is to improve sales outcomes, are the revenues generated at contract time, or over progress payments, etc.? In other words, the benefits

identified in the business case will be impacted by how the company treats each line item within the respective reports.

The assumptions, as well as decisions on the business case parameters results in considerable latitude when developing the business case.

Latitude in the Business Case:

1. Number of years analyzed
2. Quantified vs. Soft benefits
3. Sensitivity (Conservative, Aggressive)
4. Risk Avoidance
5. Uncertainty Advantage
6. Ramp up of benefits
7. Alternatives, Phases
8. Capitalize vs. Expense
9. Number of years depreciation, capitalization
10. Method of depreciation (straight, double-declining, units of production...)
11. Redeployment of labor, assets
12. Union, Legal Collaboration
13. Capacities
14. Fixed vs Variable, Semi-Variable, Step-Fixed
15. Negotiated material rates, consignments,
16. Cash vs Accrual
17. Revenue recognition
18. Allocation method
19. Inventory Accounting method (LIFO, FIFO...)
20. Inventory Benefit of Capital Reduction or Inventory Annual Carrying Costs – or both
21. Inventory Carrying Costs as % of Capital
22. Financial parameters (cost of money, inflation, capital costs (internally, externally financed), tax rates
23. Sunseting, elimination of previous capital and expense
24. Organizational change
25. Management Support
26. Baseline metrics and method to capture value realization

Financial Intelligence Reports

Let's further discuss the basics of each report.

Income Statement (also known as Profit and Loss Statement)

Top Line: Revenue (Sales) – what is “sold” to customers, whether products or services.

Discretion:

- Accrual of revenue occurs for the record although cash may not have been exchanged
- When is it recorded? (at contract, when delivered/installed, when invoiced, when paid...)
- What if it is equipment with service/maintenance – sold as lease?
- Project/Software/Building – progress payments
- Consigned products to a customer – ship physically to them, but charge them only when they sell it
- Pass-through costs from sub-contractors/partners – but added to Revenue, then counted as cost of revenue
- Channel-stuff – pushing out products to distribution and recording as revenue, even if it may be returned

Costs and Expenditure – What is required to provide products and services

Cost of Goods Sold (COGS), Cost of Services – typically includes direct costs such as direct labor, direct materials – or direct services. Mostly variable, with some fixed/step-fixed

Discretion:

- Gray area – indirect labor/management near to the transformation processes; indirect costs such as tooling, machine programming, maintenance materials, equipment depreciation – or services costs such as travel/expense. Mostly fixed, step-fixed

Operating Expense – All other expense to enable and deliver the provision of products and services, including Sales, General, and Administrative (SG&A), Research and Development (R&D). Also includes other cash costs such as taxes, and includes non-cash costs such as depreciation, amortization.

Discretion:

- When developing product, some goes into R&D (as incurred), and some is spread over the product costs. In that case – over how many units, what years....
- Accruals of expenses incurred which impact a company's net income on the income statement, although cash related to the transaction has not yet changed hands.

- An allocation is the process of shifting overhead costs to cost objects, using a rational basis of allotment. Allocations are most commonly used to assign costs to produced goods, which then appear in the financial statements of a business in either the cost of goods sold or the inventory asset.
- Capital that is leased or depreciated – vs. upfront expense. Depreciation is estimate of declining capital value through the expected product life
- Amortization is on intangibles (patents, copyrights, goodwill)

Profit

- Gross Margin – Revenue minus COGS
- Operating Profit – Revenue minus COGS minus Operating Expense (SG&A) – which includes depreciation, amortization
- EBIT (Earnings before Interest and Taxes) – Revenue minus COGS minus Operating Expense, where interest and taxes are excluded, with the idea that they have little to do with how well you are operating the business
- EBITDA (Earning before Interest, Taxes, Depreciation, Amortization) – Revenue minus COGS minus Operating Expense, where interest and taxes are excluded, and also depreciation, amortization, which are non-cash treatments for the investments/intangibles. Depreciation and amortization are decisions on treatment of the investments for profit or tax presentations (or other), but do not reflect the effectiveness of how the operation is run.
- Net Profit – Revenue minus COGS minus Operating Expense (including interest, taxes, depreciation, amortization) minus one-time charges

Balance Sheet

Assets = liabilities + owner's equity, where equity is accumulation of profit

Assets – What the company owns – (*Discretion*)

- Cash – liquid (turn into cash in less than a day)
- Accounts Receivables – owed by customers during time between Accrual and Paid, including allowance for possible bad debt – (*terms for collection*)
- Inventory – sellable product in progressive stages of transformation from supplier materials to work in process to finished goods, and is considered inventory during receipt from supplier through customer receipt – (*consignment, vendor managed, postponement*)
- Property, Plant, and Equipment – Purchase price of each – (*depreciation terms*)
- Less: Accumulated Depreciation – Reflects how the plant and equipment are reduced in value over time

- Goodwill – Difference of acquisition price minus net assets (fair market value of assets minus liabilities) may or may not be depreciated over time - (*depreciation, amortization terms*)
- Intellectual Property, Patents, Other Intangibles – Decisions on treatment of Research and Development if they result in an asset that generates revenue - (*depreciation, amortization terms*)
- Accruals and Prepaid Assets – upfront payments to be accrued over time – (*terms*)

Liabilities – What the company owes

- Current Portion of Long-Term Debt – What is due this year
- Short-Term Loans – Lines of Credit and Short-term revolving loans – (*credit potential influenced by assets, performance....*)
- Accounts Payables – What is owed to suppliers, measured from Receipt to Payment – (*terms for collection*)
- Accrued Expenses and Other Short-Term Liabilities – Everything else the company owes
- Long-Term Liabilities – Long-term loans, deferred bonuses/compensation, deferred taxes, pension liabilities - (*owners', board of directors', executive's decisions....*)

Owner's Equity

- Preferred Shares – Receive dividends first, but usually fixed. Typically no voting rights
- Common Shares or Stock – Voting shares, but may or may not have dividends
- Additional Paid-In Capital – Incremental above the Par Value of the
- Retained Earnings – Reinvested profits accumulation

Discretion

- Mark to market (MTM) is a method of measuring the fair value of accounts that can fluctuate over time, such as assets and liabilities. Mark to market aims to provide a realistic appraisal of an institution's or company's current financial situation based on current market conditions.

In trading and investing, certain securities, such as futures and mutual funds, are also marked to market to show the current market value of these investments. Mark to Market (MTM) Definition (investopedia.com) (In securities trading, mark to market involves recording the price or value of a security, portfolio, or account to reflect the current market value rather than book value. This is done most often in futures accounts to ensure that margin requirements are being met.) Depreciation is always calculated based on historical cost whereas impairments are always calculated on mark to market. Physical assets are more often recorded at historical cost whereas marketable securities are recorded at mark to market.

- Structured Finance – Complex specified needs that a simple loan or another conventional financial instrument will not satisfy. In most cases, structured finance involves one or several discretionary transactions to be completed; as a result, evolved and often risky instruments must be implemented. Possible outcomes visibly produce profits that are positive year-over-year, but cash flow is negative (e.g. Enron) Structured Finance Definition (investopedia.com)

Cash Flow

- Cash is King. While the P&L and Balance Sheet have biases, Cash is the least affected by the art of finance. The P&L and Balance Sheet are designed to support particular outcomes desired, while cash is reality.
- It is important to understand that you can have Cash without Profit, and Profit without Cash. Cash is generated from, or used in Operating Activities, Investing Activities, and Financing Activities. You can learn considerable from the Cash Flow:
 - Is there a Net Cash Gain
 - How is the Operating Cash flow compared to the Net Income
 - What is the inventory consumption – are you going Lean, or adding for new business ventures, or out-of-control, or.....
 - How is the Investment situation – Depreciation vs Investment
 - Is there a Dividend Payout?
 - Is AR changing – are customer's a risk
 - Are you deferring expenses
 - Is your PPE growing – are you investing in the future?
 - How is your Free Cash Flow – 3 versions. One is Net Operating Profit After Taxes minus Cost of Capital, or NOPAT minus Net Operating Income (1-Tax rate)

Ratios

- Profitability Ratios – (e.g. Net Operating Profit/Net Assets (RONA), Gross Margin %, Net Profit %)
- Leverage Ratios – (e.g. debt/equity, Operating Profit/Annual Interest Charges)
- Liquidity Ratios – (e.g. Current, Quick)
- Efficiency Ratios – (e.g. DOS, DSO, DPO, Revenue/Total Assets)
- Market Value = Tangible Assets (Working Capital, Fixed Assets) plus Intangible Assets (Goodwill, Branding...)
- Incentives - raise the stock price, increase executive payouts, provide leverage for debt, ego
- Risks - fraud, stock price, credit rating

- Revenue - Claimed earlier than realized, Claimed falsely (ship and return), Inflated, Hedged, Unsecured (credit risk, high write-off)
- Costs - Efficiency (Economies of Scale, Integration), Procurement Scale, Leverage, Advertising/Marketing Scale, Sales Scale, Intangibles Leverage (IP, Branding...)
- Assets - Depreciation/Amortization vs. Expense, Payables, Receivables, Cash

Thoughts from the Book - Applying Financial Intelligence

The Art in Investments

Beyond the ongoing generation of profits and cash, and utilization of assets, a company will make investments to improve the business outcomes relative to what management wants (or business objectives). Investments are in many forms including people, organization, mergers and acquisitions, divestitures, business systems, equipment for transformation, support equipment, buildings, processes/methodologies, education, logistics, etc.

The business case for each investment provides the key stakeholders alternative investments with comparisons including returns on investment, payback, cost of doing nothing, strategic fit, positioning for risk aversion and uncertainty advantage. The business case is based on collaborative discussions about the value of the change/improvement. Capturing the value and tracking it for value realization will require cooperative metrics and data, but there could be some challenges. For example.

What Happens with Lean?

Challenge:

What about the benefits of Lean such as shortened lead times, reduced waste, improved quality, reduced inventory, just in time material deliveries...?

The standard costing approach will not fairly recognize the true effect of Lean (in the short term). Standard costs will assume the prior burden rate costs for a product despite actual reductions of waste, cycle times, etc. – thus improperly projecting profits. End of period variance will give an indication, but not provide actual costing until the standards are adjusted (reflecting new labor, material, overhead for lean operations). Activity Based Costing, Direct Costing, Variable Costing will provide improved insights on the results of Lean but are not necessarily acceptable for external reporting (GAAP, FASB, IFRS).

And what about Direct labor Anyway?

During the Lean journey the Direct Labor is scrutinized. The reality is that much of the Direct Labor activity is non-value add. Waste ([Accounting for World Class Operations, page 46](#)) in searching, setups, interpreting, movement, extra steps, storing/lifting.... First, why focus on Direct Labor at all since it is increasingly a smaller portion of the costs. And, even worse, why base the allocation of semi-fixed and fixed overhead on a Direct Labor? The fact is that the Overhead costs may increase as the Direct Labor efforts are eliminated or automated.

The initial problem is that the standard burden rate is not adjusted to reflect the actual burden, reduced waste, etc. Lean has a dramatic impact on labor, material, and overhead (positively and negatively). In Lean, a scenario might be to add some net labor to a product cell (complete part

manufacturing) while reducing more dramatically the inventory, overhead costs, waste.... However, if the standard cost approach keeps the same burden rate, the increased labor hours result in a higher cost (greater labor and burden), despite actually reducing costs. More likely, the direct labor will continue to become less significant, and disconnected to the actual overhead – so why relate them through a burden rate? Clearly, the standard cost approach hasn't fairly reflected the actual costs.

A Little Batch Will Do Ya?

Contrary to the benefit of reducing batch sizes (less inventory, frees up capacity for other parts), the increased number of setups will be perceived as added cost. If you reduce setup time substantially and properly reflect it in the standard costing, then you can compensate for the additional setups. Other methods of setup such as automation, redundant fixturing, parallel setup during processing...should reduce the impact of setups, with an advantage of enabling batches sized based on actual demand.

Regardless of how standard costing reflects the impact of smaller batch sizes, overall the effect on throughput, customer service, inventory will be positive for the company.

Real Capacity Vs. Perceived Capacity?

Another possible “false representation” is when there are parallel processes, with one being the constraint or bottleneck. The total sellable throughput is paced by that constraint or bottleneck, and all other processes will either underperform their true capacity or generate excess inventory. Either scenario will result in perceived waste (idle capacity or excess inventory) or will be falsely costed by a standard costing approach (until the standards are updated).

Over time, the Lean approach will right size the non-constraints, or find alternative uses, or write off the unused capacities as cost of doing business.

The Good, Bad, and Ugly of Inventory

When you **generate** inventory (capitalize), the labor and material are “shelved” (not generating revenue) thus not impacting the P&L – essentially your profits are higher than if that same labor and material generated revenue (product immediately consumed rather than going into inventory).

Initially, in Lean, you **consume** inventory therefore the current direct labor and materials consumption are reduced temporarily and create idle capacity. Or you can sell that idle capacity for alternative product and/or consumers (consumers are the next operation). Or if you keep paying for labor and overhead while consuming inventory, your P&L will have the Cost of Goods Sold for the inventory consumed (from a previous period) AND the actual labor/materials for that period, so the profit takes a hit temporarily. The overhead is assumed to be consumed

(hits P&L) subject to fixed/variable designations. Additionally, you will strive to eliminate and prevent obsolete inventory through write-offs, fire-sales, substitution – all having temporary impact on the P&L.

Once you achieve Lean Steady State, when all the “excess inventory” has been consumed, all the capacities (labor, overhead) have been right-sized, and all material supply has been “leaned” (small lots, just in time....), and the inventory carrying costs have been adjusted (material handling, storage, clerical, obsolescence, ...) – the overall cost structure is reduced, thus reducing the costs of inventory and increasing profit on the P&L.

Are The Material Differences Material?

Lean requires a collaborative approach with the suppliers, including shipments of smaller batches but more frequently, flexibility to adapt to changing requirements, collaboration during design, continuous communication, changes to logistics (possibly to point of use rather than intermediate receiving). The suppliers may be rewarded in exclusivity, or increased volumes due to improved competitiveness, but must also “lean out” their own operations to absorb the initially more costly requirements while meeting the expectations of reduced pricing to their customers. Yes, Lean causes a “material difference” in the material costs of a product.

Other Lean impact:

1. Revenue – improved competitiveness in cost, lead time, quality, capacity...
2. Quality Costs – less waste, improved first time yield, improved capacity utilization, improved on-time delivery, improved customer service/reputation,...
3. Asset Acquisition – due to improved capacity utilization and acceptance of less advanced equipment for specialized operations, non-bottleneck/constraint processes....
4. Share Price/Value – impact on Revenue, Costs, Asset Utilization, and adaptability and responsiveness, as well as risk aversion and uncertainty advantage
5. Lending – if asset-based lending, the lender loans based on percentage of inventory, which is reduced in Lean
6. Risk Avoidance – reduces quality issues, unmet customer expectations, within the bounds of compliance, regulation, and contractual obligations.
7. Uncertainty Advantage – improves on the adaptability and flexibility to meet new challenges, including shorter lead times, improved capacity utilization (which may provide available capacity to absorb new offerings for differentiation).
8. Adaptive and Responsive vs. Forecasting, Predicting, Budgeting – As flexibility increases and lead times decrease, lean closes the chasm between projections and actuals.
9. Bonuses – initial hits to profit may affect current bonuses, although ideally there should be a more creative bonus structure in line with the objectives of Lean

Similarly, the other investments (in addition to Lean) will likely require scrutiny on how you measure the Value and track the Value Realization. Financial Intelligence is invaluable and essential for making the right business decisions.

Gaining Value through Financial Literacy

Whether you are considering new investment decisions, or in your day-to-day decision-making role, it is essential to understand how Value is measured and how you contribute to it. We define Value in this context as “what the owners want” – which is typically defined as business objectives.

First, you will want to understand how you are aligned to that ultimate Value. If the Value is defined as revenue growth – how does your role contribute to revenue growth. Perhaps you are in a sales role with direct impact on new business, growing organic product sales, advising production on future needs (to not stock out!), etc. Or perhaps your role is in product development where you improve competitiveness through design, quality, etc. Or perhaps you are in production or materials where you have an impact on cost, quality, availability, etc.

What if Value is defined as Return on Net Assets? Well, this adds the constraint of Net Assets such as floor space, equipment, inventory, cash, etc. Your role will want to grow Return (profit) while reducing Net Assets. If your role is Materials Management, you will want to optimize the inventory so that you have the “right parts” at the “right place” at the “right time”. There is a delicate balance so that you don’t stock out of what you need, and you don’t carry excess of what doesn’t move. Similarly, if I’m production management I will want to increase efficiencies (reduce waste, increase cycle times, etc.) while managing the capacity utilization, up-time, labor, and maintenance.

Whatever your role, you’ll want to have a defined comprehensive metric on how you contribute to Value and have timely access to your progress in the metric. However, “measuring” is not enough. Nor, is a bureaucratic hierarchy where permission must be sought before acting. The key is continuous performance improvement and the best person to make that happen is nearest the decision point. If you are the salesperson in the field, or are managing inventory, or person “on the line in production”, then you are the best person to make improvement. This means that you must be Accountable.

Accountability is possible if you’re given the right information, empowered to take continuous action, and are incentivized to want to improve. The absolute best way is to give indisputable visibility to all parties – here’s the situation, here’s how to investigate, here’s how to improve. This transparency ensures that everyone works towards to goal of continuous improvement in Value. And there is a subtle incentive in accountability – which is the sentinel effect (“Everyone sees what I’m doing, so I better do it right!”).

Summary

Here's what we are saying in this review:

- Evaluate your company's performance by understanding the reports
- Realize that the reports will have latitude in how the numbers are created
- The more you understand the motive in taking latitude – the more you'll appreciate what the owners define as Value
- Align your span of responsibility to the defined Value – how can you contribute in day-to-day role, as well as in investment decisions
- Encourage your company to provide the knowledge (your metric), empower you to make decisions, and incentivize for progress
- Your accountability puts you in charge

So, you thought you could escape from the accountants and all their financial jargon!! Rather than thinking of the financials as after-the-fact reporting, embrace it as enabling your path to creating Value.

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7 Types Of Waste In Lean Manufacturing & How To Reduce Them - Iron Bull Mfg (ibullmfg.com) - ... as global and American manufacturing companies continue to expand and innovate, cost competitiveness and workforce productivity will be critical for manufacturing companies. Companies with efficient systems and less waste will rise to the top and have an advantage over both national and international competition.

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Value DynamiX LLC provides methodology, tools, and services to help you align investments to desired outcomes.