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PRIORITIZING ANALYTICS INVESTMENTS

A GUIDE FOR CPG BUSINESS LEADERS

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INTRODUCTION

The Challenge CPG's Face

Consumer Packaged Goods (CPG) organizations are increasingly investing in analytics to solve business problems to support growth (top line revenue) and reduce costs (bottom line earnings). There certainly isn't a shortage of problems to solve, and many organizations have brought on some data scientists to begin to tackle their challenges.

However, as daunting as the analytics can be, **the real challenge is to properly define and prioritize the opportunities you want analytics to solve.**

The Solution

Mapping desired solutions on a two-dimensional graph – impact (ROI) vs effort (cost) – can quickly identify which projects will yield the greatest organizational impact. But how does one best estimate those metrics?

In this guide we provide a Project Prioritization Framework to arm organizational leaders with the steps needed to make the best decisions about where to invest their data and analytics efforts.

Analytics can...

Support Growth

Reduce Costs

CONSIDERATIONS

Before employing the **Project Prioritization Framework**, it is critical that your organization has a comprehensive data and analytics strategy, as well as an understanding of your data maturity. This guide doesn't cover those topics in-depth; still, this section provides basic information to help organizations start conversations on where they stand.

Data Strategy Considerations

A data strategy is the foundation to all your data practices. It is the long-term plan that defines the people, processes, and technology needed to solve your data and analytic challenges to support your business goals.

Do you have the foundations of an effective data strategy in place? Review the checklist below for the core components.

- ☐ Laser-focused understanding and clarity on the **primary objectives** and **success factors**

- ☐ **Common language** of business (a lexicon: how the business defines a transaction, order, product, etc.)

- ☐ **Change management** plan and playbook

- ☐ Robust **data management** to allow trusted data to reach the right people quickly

- ☐ Well defined **roles and responsibilities** related to data and analytic decision making

- ☐ **Executive leadership** that clearly articulates the strategic value of data across the organization

Data & Analytic Maturity Considerations

When organizations know where they stand on the data and analytic maturity scales, they can best understand what particular projects to tackle. Here is a framework to understand the components you need to assess to evaluate data and analytic maturity.

Data Maturity Framework

	DATA STRATEGY	TOOLS & INFRASTRUCTURE	PROCESS & GOVERNANCE	PEOPLE	ANALYTICS DELIVERY
CAPABILITY	Business Needs for Data	IT Infrastructure	Data Asset Governance	Business Analysis	Analytics Delivery Framework
		Data Storage		Creativity	Customer Engagement
	Data Asset Management	Data Transformation	Analytics Model Governance	Project Management	Model Sophistication
	Roles & Responsibilities	Tools		Analytics Knowledge & Skills	Model Evaluation & Performance
	Data & Analytics Leadership	Delivery	Enterprise Analytics Governance	Engineering Breadth	Integration Success
		Operations		Design & Deployment	Change Management

CPG Specific Considerations

To enhance your business through analytics, it is key to understand your current environment; then you are armed to spend your time, energy, and budget in the right places. Consider discussing the following common CPG factors with key stakeholders:
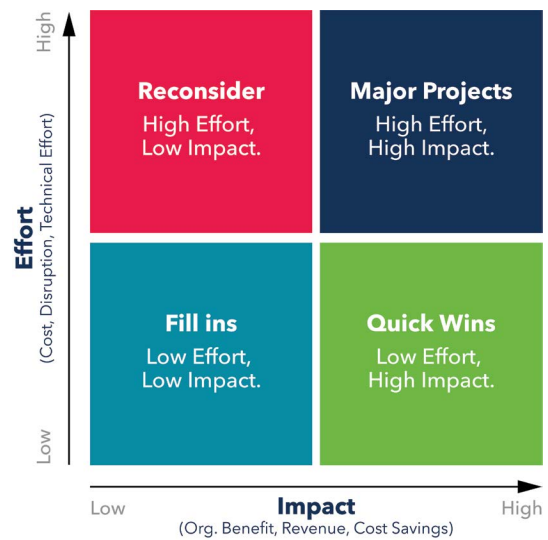
- **How quickly is your eCommerce business growing?**

- **How effective is your digital market and what are the interactions with tradition media?**

- **How accurately can you forecast supply chain demand and anticipate potential shortfalls?**

- **What are you gateway brands, and which have cross-sell value?**

- **How accurate are your forecasts for volume impacts on promotions, new product introductions, and market campaigns?**

- **How efficient are your factory change-overs in maximizing product outputs?**

PROJECT PRIORITIZATION FRAMEWORK

To assess where to prioritize your efforts, we recommend using the tried-and-true Impact vs Effort chart. **The challenge of prioritizing projects is not about what mechanism you use to visualize the data, but what methodology you use to assess and prioritize your potential investments.** The steps of this process include:
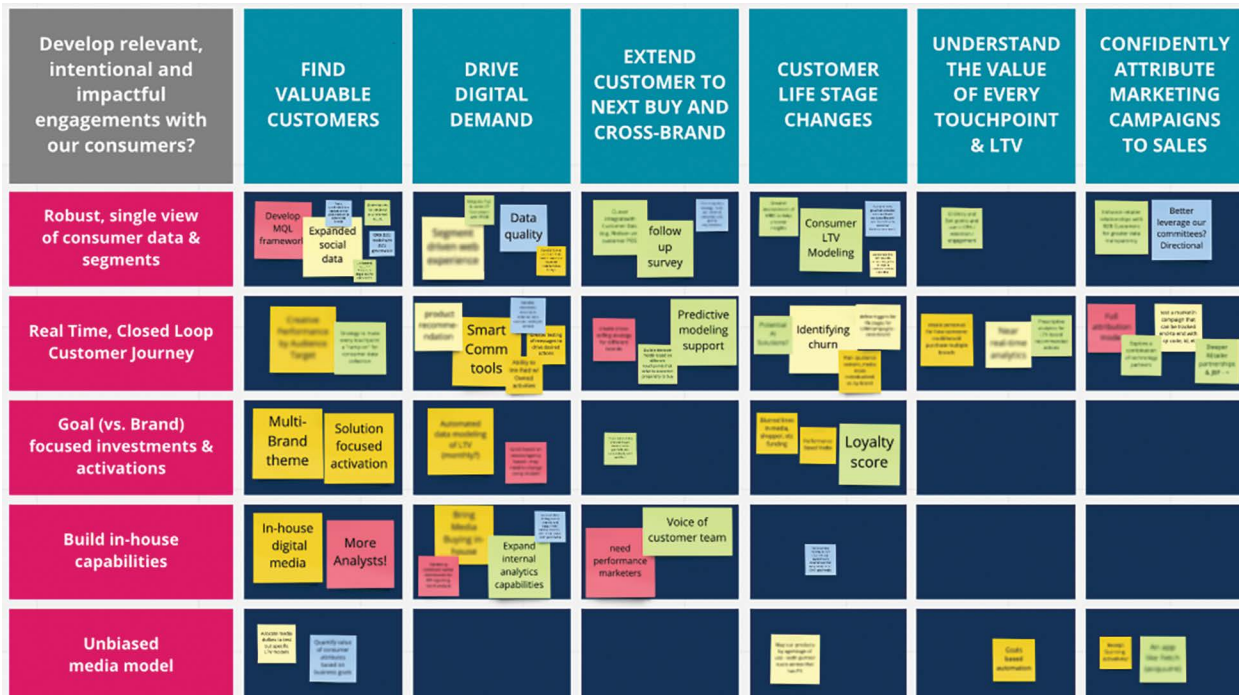
1. Brainstorm Business Problems
2. Project Assessment Scorecard
3. Impact vs Effort Mapping
4. Strategic Project Identification
5. Project Prioritization

Effort (Cost, Disruption, Technical Effort)

Reconsider High Effort, Low Impact.	**Major Projects** High Effort, High Impact.
Fill ins Low Effort, Low Impact.	**Quick Wins** Low Effort, High Impact.

Low — **Impact** (Org. Benefit, Revenue, Cost Savings) — High

1. Brainstorm Business Problems

The first step is to gather a list of business problems that your organization would like to solve. Start by listing the existing projects in your backlog but aim to also brainstorm totally new projects.

When brainstorming, one exercise that can be helpful is completing the Project Ideation Chart. The X-axis lists problems to be solved. The Y-axis lists present or aspirational solution mechanisms. Then begin to fill in the chart. If your team is collaborating virtually, we recommend using a tool like Miro.

Develop relevant, intentional and impactful engagements with our consumers?	FIND VALUABLE CUSTOMERS	DRIVE DIGITAL DEMAND	EXTEND CUSTOMER TO NEXT BUY AND CROSS-BRAND	CUSTOMER LIFE STAGE CHANGES	UNDERSTAND THE VALUE OF EVERY TOUCHPOINT & LTV	CONFIDENTLY ATTRIBUTE MARKETING CAMPAIGNS TO SALES
Robust, single view of consumer data & segments	Develop MQL framework / Expanded social data	Data quality / Segment driven web experience	follow up survey	Consumer LTV Modeling		Better leverage our committees? Directional
Real Time, Closed Loop Customer Journey	Creative Performance by Audience Target	product recommendation / Smart Comm tools	Predictive modeling support	Identifying churn	Near real-time analytics	Full attribution
Goal (vs. Brand) focused investments & activations	Multi-Brand theme / Solution focused activation	Automated data modeling of LTV (monthly?)		Loyalty score		
Build in-house capabilities	In-house digital media / More Analysts!		Expand internal analytics capabilities / need performance marketers	Voice of customer team		
Unbiased media model					Costs based automation	

Example of a Project Ideation Chart.

2. Project Assessment Scorecard

Score projects in four categories: Data, Costs, Actionability, and Potential ROI.
We recommend using three grades: Low, Medium, and High.

PROJECT	AREA	DATA			ESTIMATED COST			ACTION-ABILITY	POTENTIAL ROI
		Exists?	Quality?	Accessibility?	Direct?	Disruption?	Technical?		
Amazon Demand Forecast	On-line Sales	Yes	Medium	High	Low	Medium	Medium	Medium	Medium
Store Segmentation & Product Mix	Customer POS	Yes	High	High	Low	High	Medium	Unknown	**High**
Phantom Inventory	Customer POS	Unknown	Medium	Low	Low	High	High	Low	Unknown
Business Case Forecasting	Marketing	Yes	Medium	Medium	Medium	Medium	Low	High	**High**
Return Rate Forecasting	Quality Assurance	Yes	Medium	High	Low	Medium	Medium	Medium	Medium
Customer Demand Forecasting	Operations (SCM)	Yes	Medium	Medium	Medium	High	Medium	High	**High**
Capture of POS Data	Operations (SCM)	Yes	Medium	Medium	Medium/ High	Low	Low	Medium	Low/ Medium

Example of a Project Assessment Scorecard.

Data

Ask the following questions of the data required for the project:

- **What data exists?**
  - Is the data being collected and stored?
  - Is the data being purchased from a third party?
  - If the data doesn't exist, then the project cannot be undertaken

- **What is the quality of the data?**
  - Is the data reliably collected without substantial errors or missing values?
  - Has the data been collected for multiple time periods -- enough to draw inferences?
  - Has the same data been validated by another use case or project?

- **Is the data accessible to the team?**
  - Is the data available remotely to people with valid credentials?
  - Is there up-to-date meta-data or a data dictionary?
  - Is the data available in a format that can use the preferred analytic technology?

Cost

Use the following questions to assess the estimated cost for the project:

- **What are the direct costs?**
  - Is there a cost to purchase data?
  - What is the time cost of technical staff (data analyst, scientists, engineers, consultants, etc.)?
  - What is the time cost of subject matter experts?

- **What disruptions to the business will this cause?**
  - Will this change a business process, or require multiple processes in tandem?
  - Will teams require new training?
  - Will this challenge conventional wisdom and assumptions?

- **What technical aspects will be affected?**
  - Will we need to make changes to infrastructure?
  - Will we build robust pipelines to update the data regularly?
  - Will we need additional storage or compute capacity?

Actionability

The core question to ask in this step is **what will change in your organization if the analytics project is successful?**

To realize a benefit, there needs to be some process or decision that changes as a result of the analysis; this is actionability. If the completed, technically successful project won't result in anything actionable then the project is not a priority.

Here are useful action-related questions for CPG analytics projects:

- **Which categories/brands/products are promoted or featured?**

- **How much inventory is kept on hand across multiple locations?**

- **Which consumers are marketed to during a direct campaign?**

- **Where is additional hourly staff needed?**

- **In which regions should a new product be distributed?**

ROI

For every organization, project return on investment ROI will look different. If your organization or analytics partner does not have historical data to provide ROI estimates, there are many industry benchmarks that you can use to guide this process, including this graphic from McKinsey's article on [Achieving business impact with data](#).

TOP LINE		
Use Cases	**Reference Impact**	
	Increase in Sales, %	Margin Improvement, ppt[2]
Assortment optimization	2.0	1.0
Cross-and up-sell	2.0	-
Churn prevention	1.5	-
Pricing	2.0	1.0
Stock and Replenishment Optimization	2.0	0.5
Promotion Optimization	1.5	1.0
Space and Shelf Optimization	1.5	-

BOTTOM LINE	
Use Cases	**Reference Impact[1], %**
	Cost Reduction
Preventative Maintenance	20-50% of call-center costs
Marketing spend effectiveness	5-10% of marketing costs
Demand planning	20-30% of warehousing costs
Fraud prevention	1-5% of fraud loss
Bad-debt management	10-20% of bad debt loss
Workforce planning	10-20% of service costs
Supply-chain optimization	10-30% of logistics costs

1 - Based upon 100+ reference cases; realization over 1-3 years.

2 - Percentage point.

3. Impact vs. Effort Mapping

Once projects are assessed, plot their Impact vs. Effort on a chart, using the scorecard results.

Impact (or ROI)

Assess if the initiative will enhance **top line revenue** (those contributing to an increase in sales such as customer retention, customer up-sell, or new customer acquisition) or will it reduce **bottom line costs** (such as supplier optimization, raw materials storage vs. just in time delivery, etc.).

An impact value can also be defined using nuanced factors such as long-term strategy alignment, business unit or team alignment, data asset development, speed to delivery, uncovered findings, alternate vendor costs, and improved data literacy across the organization.
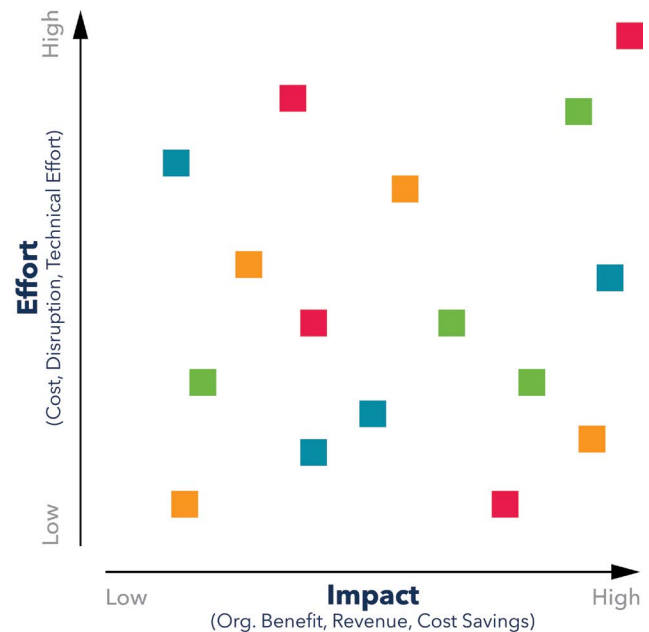
Effort (or Cost)

There are many factors that impact of a potential analytic project's effort and cost. Again, **clearly defining the business opportunity is essential for outlining a solution and generating an accurate cost estimate** (as well as measuring the impact).

Also consider data availability, technical capability, and the surprisingly important change management impacts. Lastly, estimate possible sales impact, depending on the use case.   A weighted sum of these cost/effort factors becomes the X-axis of your chart.

4. Strategic Project Identification

Highlight projects that strategically align with organizational goals. Those might overrule ROI when prioritizing investment opportunities (see example below). But the decision will be transparent.

Focus Areas

| Increasing Online Sales Revenue |
| Leverage Customer Point-of-sale Data |
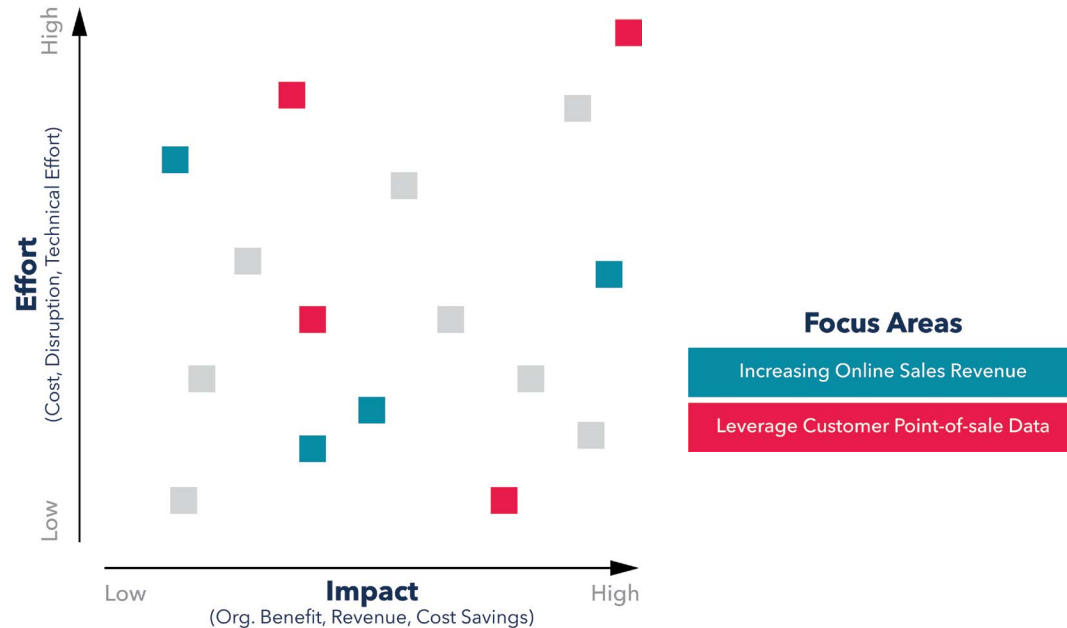
Concurrent projects should be grouped together to capture synergies. An example of this would be forecasting inventory levels and optimizing product promotion - to ensure promoted products won't run out.
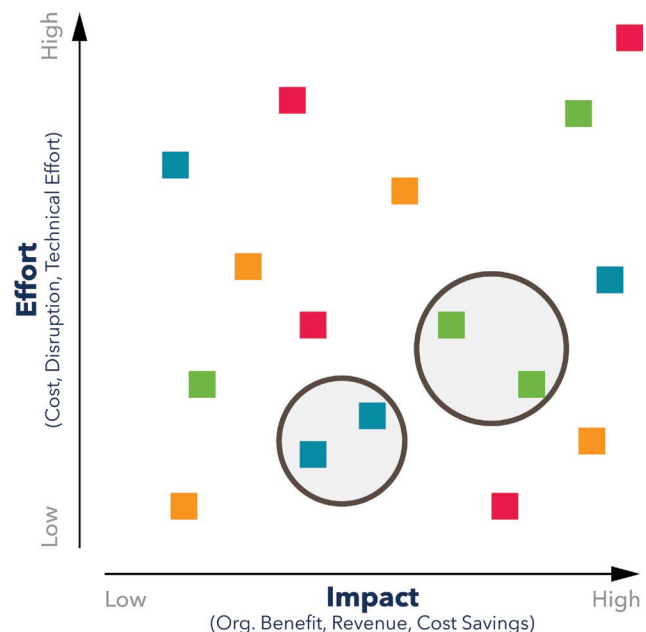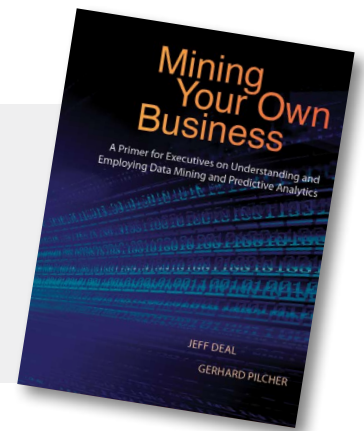
5. Project Prioritization

The last step is straight-forward but approach it with thoughtful consideration as it sets the groundwork for your investments. The framework above has identified the expected costs and impact for each potential project, highlighted the projects that are aligned with your organization's strategic goals, and collected projects that can be approached in parallel.

Now is the moment you have been waiting for. Take all that information and prioritize your analytic investments into a single top-down list. This transparent direction setting **empowers analytic leaders to do the important work of solving critical business problems.**

Further Reading:

Mining Your Own Business

Get in touch with us if you'd like to hear about receiving a complimentary copy of the book.

CONCLUSION

Assessing and prioritizing the business problems you could solve with analytics is a vital step that is often not done rationally and transparently. Many organizations undertake several unfocused projects, leading to diluted, incomplete, or ignored results. Worse, the "bad" analytics and unclear ROI can have a negative ripple effect throughout an organization, leading to an abandoned analytics strategy, resistance to change, and putting top/bottom line revenue in a worse place than when you first started.

This framework should instead help your organization evaluate strategic investments rationally and set your teams up for full-deployment success.

Need help estimating these parameters or defining your data strategy?

Ready to kick-off a project?

Reach out to us, we'd love to hear from you!

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