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*Product versus Project Management:*
*Enabling the most value*
by Frank Murphy

# Product versus Project Management: Enabling the most value! [1, 2]

## Frank Murphy

## Introduction

Product management concentrates on maximizing value, but this is not exclusive to this discipline.  Project management can be seen as inflexible in some ways, including budgeting.  How can we blend the methodologies and get the best results.  We'll explore how Marketing Technology could be managed as a program, but with multiple products that each deliver business value.  Return on investment is a common measurement, but are there times when it is not appropriate?  What happens when the product doesn't meet the hurdle rate and there is not a replacement ready to install?  You cannot stop marketing so how can you reconcile the differences and better manager a program that implements and maintains technology.

A product can be defined as an item that solves a customer need and has a lifecycle of continued development and iterations.  A project is a temporary endeavor designed to deliver a specific goal in a specified timeframe, with a predetermined budget.  Blending these two approaches is possible but they can conflict when the product uses a measurement of long-term value, while the project has a specific end date.  What if we used project management to be an umbrella to deliver the initial specific capabilities and then pivoted to product management to adapt and meet customer expectations that were not foreseen?

## Defining Clear Objectives

While products and projects are interrelated, they differ fundamentally in lifespan, focus, team structure, and management approach.  Project management ensures structured goal setting, while product management aligns objectives with long-term user value. Clear objectives are critical for both project and product management. Project managers use frameworks like SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals to define deliverables within a fixed scope and timeline, such as launching a new feature by Q3. Product managers, conversely, focus on

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ongoing value, setting objectives like increasing user retention by 15% through iterative enhancements.

The intersection lies in aligning these goals: project managers translate product visions into actionable milestones, while product managers ensure project deliverables enhance the product's roadmap. For example, in a smartphone product, a product manager might prioritize a night-mode camera feature, while a project manager defines the six-month timeline and $500K budget to deliver it. This collaboration prevents scope creep and ensures projects contribute to strategic goals. A PMI study (2020) found that aligned objectives increase project success by 25%. By jointly defining success metrics, such as feature adoption rates, both disciplines leverage stakeholder input to refine goals, ensuring short-term deliverables support long-term value.

For data science projects, objectives often revolve around solving specific business problems, such as predicting customer churn or optimizing supply chains. The intersection lies in translating vague business needs into precise, data-driven questions. For example, a project manager might work with stakeholders to define a goal like "reduce customer churn by 10% in six months," while a data scientist conducts exploratory data analysis to identify key predictors like purchase frequency or customer demographics.  This collaboration requires project managers to understand data science workflows, such as CRISP-DM (Cross-Industry Standard Process for Data Mining), to set realistic milestones. Sata scientists benefit from project management's focus on scope control, preventing "scope creep" where objectives expand uncontrollably. A case study from IBM shows how clear objectives in a predictive maintenance project saved 12% in operational costs by focusing on high-impact equipment failures (IBM, 2020).

## Stakeholder Engagement

Project management facilitates structured communication, while product management ensures stakeholder needs drive product evolution.  Stakeholder engagement is central to both disciplines. Project managers use tools like RACI charts to clarify roles and ensure timely updates and maintain alignment on project deliverables. Product managers engage stakeholders to gather user feedback and market insights to facilitate shaping the product backlog.

The intersection occurs when project managers channel stakeholder feedback into project plans, while product managers ensure project outputs meet user needs. One example is a retail app project where a project manager organizes sprint reviews with stakeholders.  The product manager uses customer surveys to prioritize features like one-click checkout. This synergy ensures projects deliver value-aligned outputs. By co-hosting workshops, both managers align business goals with project execution, using shared metrics like Net Promoter Score (NPS) to gauge success.

In data science, stakeholders include business leaders who need interpretable insights, not just technical outputs. The intersection occurs when project managers bridge the gap between technical data science teams and non-technical stakeholders, ensuring that complex models are presented in business terms.

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## Resource Allocation

Project management optimizes budgets and timelines, while product management prioritizes resources for strategic impact. Resource allocation is a shared challenge. Project managers use Gantt charts to assign personnel and track costs and ensure projects stay on budget. Product managers allocate resources to features that maximize user value, while balancing long-term goals with immediate needs.

The intersection lies in negotiating resource priorities. Project managers ensure efficient execution, while product managers advocate for features that drive market share. In a software product a project manager might allocate developers to a security update project, where a product manager ensures the update aligns with user privacy demands. A 2017 PMI Pulse of the Profession found that misaligned resource allocation, meaning it is not aligned to corporate goals, is the most common factor in project failure. By jointly reviewing resource plans, both managers optimize investments, using data like feature usage to inform decisions.

Project management optimizes budgets and personnel, while data science informs resource needs based on computational and data requirements. Effective resource allocation ensures projects stay within budget and timeline. Project managers use tools like Gantt charts and resource leveling to assign personnel and track costs. In data science, resources include computational infrastructure (e.g., cloud platforms like AWS) and skilled personnel (e.g., data engineers, analysts). The intersection occurs when project managers collaborate with data scientists to estimate resource needs, such as GPU hours for machine learning models or data storage for large datasets.

## Risk Management

Project management mitigates execution risks, while product management addresses market and user risks. Risk management is critical for success. Project managers use risk registers to track issues like delays or budget overruns and implement mitigation plans. Product managers assess risks like market fit or user adoption and adjust the product roadmap accordingly.

The intersection occurs when both disciplines collaborate on risk strategies. Project managers ensure timely delivery and product managers validate market relevance. In a fintech product a project manager might flag a delayed API integration, while a product manager mitigates user churn risks by prioritizing alternative features. A PMI report (2020) shows proactive risk management improves outcomes by 20%. By sharing risk assessments, both managers enhance project and product resilience, using data like user feedback to prioritize risks.

Project management identifies and mitigates risks, while data science quantifies uncertainties in data and models. In data science, risks include poor data quality, model overfitting, or biased algorithms. The intersection lies in combining qualitative risk assessments from project

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management with quantitative risk analyses from data science. A project manager might flag a risk of delayed data delivery while a data scientist uses statistical tests to assess data completeness.

## Timeline Planning

Project management sets fixed schedules and product management integrates deliverables into iterative roadmaps. Timeline planning ensures progress. Project managers create schedules with tools like Microsoft Project, mapping dependencies and milestones. Product managers maintain flexible roadmaps and adjust priorities based on market trends. The intersection lies in aligning project timelines with product roadmaps. Project managers deliver increments while product managers ensure they fit the strategic vision. A project manager might schedule a three-month project for a payment feature, and the same feature is placed by a product manager into a 12-month roadmap. A Boston Consulting Group article (Palumbo, Rehberg, Li, 2024) Forrester notes that more than 30% of their technology development projects were over budget and late. By co-planning, both managers ensure projects feed product evolution, using metrics like delivery adherence to track progress.

Project management creates structured timelines, while data science informs iteration cycles and model development time.  In data science, timelines must account for iterative processes like data cleaning, model training, and validation. The intersection occurs when project managers incorporate data science's iterative nature into schedules, avoiding unrealistic deadlines. For example, a project manager might allocate two weeks for data preprocessing after a data scientist estimates cleaning a messy dataset will take 80 hours.

A case study from Google's self-driving car project shows how flexible timelines, adjusted for machine learning iterations, reduced development delays (Waymo, 2021).

## Team Collaboration

Project management fosters task-driven teamwork, while product management sustains cross-functional alignment. Collaboration drives success. Project managers use Agile frameworks like Scrum to coordinate temporary teams and ensure task completion. Product managers lead persistent, cross-functional teams, aligning roles like UX and engineering on user needs. The intersection occurs when both managers facilitate team synergy. Project managers assign roles for deliverables, while product managers ensure outputs enhance the product. In a health app project, a project manager runs daily stand-ups.  A product manager aligns the team on user wellness goals. An article by Shawn Dickerson (2022) found cross-functional collaboration can be difficult, but the company benefits when teams feel more connected to the business.  By sharing tools like Jira, both managers streamline communication, leveraging data like sprint velocity to optimize teamwork.

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Project management fosters cross-functional teamwork, while data science requires collaboration between technical and domain experts. Collaboration is essential for project success. Project managers use Agile or Scrum frameworks to facilitate daily stand-ups and sprint reviews. In data science, teams include data engineers, scientists, and business analysts who must align on goals. The intersection occurs when project managers create environments where technical and non-technical team members communicate effectively. For instance, in a marketing analytics project, a project manager might use Jira to track tasks, while data scientists share model progress via Slack.

## Quality Assurance

Project management ensures deliverable standards, while product management validates user satisfaction. Quality assurance (QA) ensures excellence. Project managers use checklists to verify deliverables meet specifications, such as on-time completion. Product managers conduct user testing to ensure features meet market needs, like high usability scores. The intersection lies in joint QA processes: project managers verify technical quality, while product managers confirm user value. For instance, in a streaming app project, a project manager ensures a new search feature is bug-free, and a product manager tests its impact on user engagement. An article on 6sigma.us shows four categories of non-conformance costs, with prevention being voluntary. The others include internal and external failures costs like rework, returned products and warranty claims.

Project management ensures deliverables meet standards, while data science validates model accuracy and reliability. In a supply chain optimization project, a project manager ensures timely delivery of a dashboard, while a data scientist validates the underlying forecasting model's accuracy.

## Change Management

Project management controls scope changes, while product management adapts to market shifts. Change is inevitable. Project managers use change control boards to assess impacts on scope or budget and maintain project stability. Product managers pivot features based on user feedback or competition, using the information for updating the backlog.

The intersection occurs when both managers coordinate changes. Project managers adjust plans and product managers ensure alignment with product goals. In an e-commerce project a project manager approves a scope change for a new payment gateway, while a product manager ensures it supports user retention. A Prosci article (2025) notes effective change management and employee engagement are connected and will result in a resilient workforce. By sharing change logs, both managers maintain alignment, using data like market trends to guide decisions.

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## Communication of Results

Project management reports progress, while product management showcases user impact. Communicating results builds trust. Project managers deliver status reports and presentations which detail milestone achievements. Product managers share user impact like increased engagement or revenue.

The intersection lies in crafting unified narratives. Project managers highlight execution success and product managers emphasize strategic value. In a fitness app project, a project manager presents on-time delivery of a workout feature. A product manager showcases a 10% rise in user sessions. A Tableau study (2019) found clear communication increases buy-in by 22%. By co-presenting results, both managers align stakeholders, using visuals like dashboards to convey impact.

Project management ensures clear reporting, while data science delivers interpretable insights. Communicating results is critical for project adoption. Project managers use status reports and presentations, while data scientists create visualizations like heatmaps or decision trees. The intersection lies in crafting narratives that make technical results accessible. For instance, in a customer segmentation project, a project manager might organize a final presentation, while a data scientist uses Tableau to visualize clusters, explaining their business impact. A 2025 article by Alex Holloway showed data visualization choices can simplify complexity and become a key communication method for stakeholders to enhance decision making.

## Continuous Improvement

Project management drives lessons learned, and product management refines the roadmap. Continuous improvement ensures growth. Project managers conduct post-mortems to identify process enhancements like faster sprint cycles. Product managers use A/B testing and user feedback to refine features and update the roadmap.

The intersection occurs when both managers integrate feedback. Project lessons improve execution and product insights shape future projects. In a travel app a project manager documents delays in API integration. A product manager prioritizes simpler features for the next project. By sharing retrospectives, both managers enhance efficiency, using data like user adoption to guide improvements.

Project management drives lessons learned, while data science refines models through feedback loops. In an e-commerce recommendation system, a project manager might document lessons on data pipeline delays, while a data scientist suggests automated retraining to improve model accuracy.

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**Frank Murphy** is a Certified Coach (ACC) who worked as a Program Manager for Marketing Technology for a Fortune 100. Frank is currently an Instructor for Palo Alto College in San Antonio, Texas, and also owns a consulting business. He retired as a CMSgt after 30 years in the U.S. Air Force. During his career he traveled to the seven continents, numerous countries, and was a key part of most military operations that needed airlift.

Frank is an accomplished results-driven Operations Leader and Project Manager with extensive experience in leading large teams and driving successful operations across domestic and international environments. He has a proven ability to streamline processes, develop multi-year fiscal strategies, and manage risks while meeting stakeholder requirements.

Frank's coaching expertise is supported by a background developed in the military and honed after service with expertise in employee engagement, team coaching and other disciplines. He has certifications in PMP, ACC, FAC P/PM, COR, and Change Management to support his clients.

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