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Leverage Value Management for PLM Program Success

Introduction

Every PLM program aims to deliver tangible value to the organization. Value Management is the process that ensures every decision and every action within the PLM framework is geared towards this goal. It involves identifying, understanding, and optimizing the value delivered to stakeholders, while minimizing costs and risks.

Therefore, as outlined in in the white paper about PLM Roadmapping (link), DxP Services has included a dedicated workstream for Value Management in the methodology. The outcomes of this workstream are

- The Value Definition, i.e., the summary of the expected benefits from implementing PLM, connected with the overall business goals, and
- The Proof of Value (PoV), i.e., focused pilot projects used to validate the expected benefits.

Key activities of Value Management are

Value Identification	Value Analysis	Value Creation	Value Measurement
Determining the specific needs, wants, and expectations of customers and stakeholders.	Evaluating the costs, benefits, and risks associated with different options to deliver value and asses how to measure it.	Designing and implementing strategies and solutions that deliver the highest value to customers.	Continuously assessing the effectiveness of value delivery and making adjustments as needed based on identified measures.

By adopting value management principles, organizations can optimize their decision-making processes, improve resource allocation, enhance stakeholder satisfaction, and achieve better overall project outcomes.

It provides a systematic approach to consistently deliver value and align projects with expectations, ultimately leading to improved business performance and success.

What is Value and Value Management

Value and value management are concepts used in various fields such as business, project management, and economics. They refer to the assessment, creation, and optimization of value in different contexts.

Value

- In a general sense, "value" refers to the worth, usefulness, or importance of something. It is a subjective measure and can vary from person to person or organization to organization.
- In economics, value often refers to the monetary worth of a product, service, or resource. It can be determined by factors such as supply and demand, utility, and market conditions.

- In business and marketing, value is often associated with the perceived benefits of a product or service in relation to its cost. Customers seek value when they believe they are getting more benefit or utility for the price they pay.
- Value can also be non-monetary. Personal, ethical, or cultural values may guide individuals and organizations in decision-making.

Value Management

- Value management is a structured and systematic approach to optimize the value of a project, process, or organization. It involves identifying and maximizing value while minimizing waste, inefficiencies, and costs.
- In project management, value management aims to deliver the project's objectives and outcomes efficiently, ensuring that the project provides value to stakeholders. This involves assessing the project's scope, cost, and schedule to achieve the desired value within constraints.
- In business management, value management can encompass various aspects such as product development, supply chain management, and customer relationship management. It focuses on improving processes, reducing costs, and enhancing customer satisfaction.
- Value management often involves techniques like cost-benefit analysis, value engineering, and continuous improvement to identify areas where value can be enhanced and waste eliminated.

Value management is particularly important in fields where resources are limited, and organizations need to make strategic decisions to allocate resources effectively and efficiently. It's about making choices that provide the most value or benefit for the resources invested.

Considering PLM implementations, DxP Services is focused on value and benefits brought by the solution designed and deployed.

Value Identification

In the context of PLM, value identification refers to understanding and quantifying the benefits that PLM can bring to an organization.

PLM is a strategic approach to managing the entire lifecycle of a product, from its initial design and development through manufacturing, distribution, and even end-of-life disposal. Identifying the value of PLM involves recognizing the potential improvements it can offer throughout the complete lifecycle.

At DxP Services we organize and document the identified potential value of PLM in the Value Definition.

This deliverable consists of the following value clusters:

- **Strategic Value** is the value of PLM which is connected to strategic company initiatives. Examples: PLM may support faster time-to-market by enabling "design everywhere" and improving the connections between engineering and manufacturing. PLM may lead to improved product quality and higher customer satisfaction by providing a cross-discipline and cross-enterprise change management. PLM may enhance overall innovation by enabling product platforms and variant management.
- **Direct Process Value** comes from improvements of business processes in which PLM is directly used. Depending on the scope of PLM, these are for example all product creation processes as well as all change and configuration management processes.
- **Indirect Process Value** is produced in both upstream and downstream processes. Upstream processes can deliver their data to PLM to ensure they generate value in the complete lifecycle. Downstream processes may use PLM data in an easier way and with higher quality. Over the course of a PLM roadmap, indirectly affected processes often become directly affected ones.
- **Infrastructure Value** primarily means lower IT cost, higher data quality, and better user acceptance. Examples: Overall license cost may be reduced by consolidating legacy systems into a central, modern PLM solution and by migrating data. Data quality may be increased by implementing or optimizing interfaces of PLM in an enterprise architecture. Deployment is simplified by streamlined and focused user trainings. Maintenance cost is limited by ensuring only high-quality customizations and introducing a strict value-based decision-making process for customizations. Overall operations cost-structure is optimized by converting on-prem systems to the cloud or to SaaS.

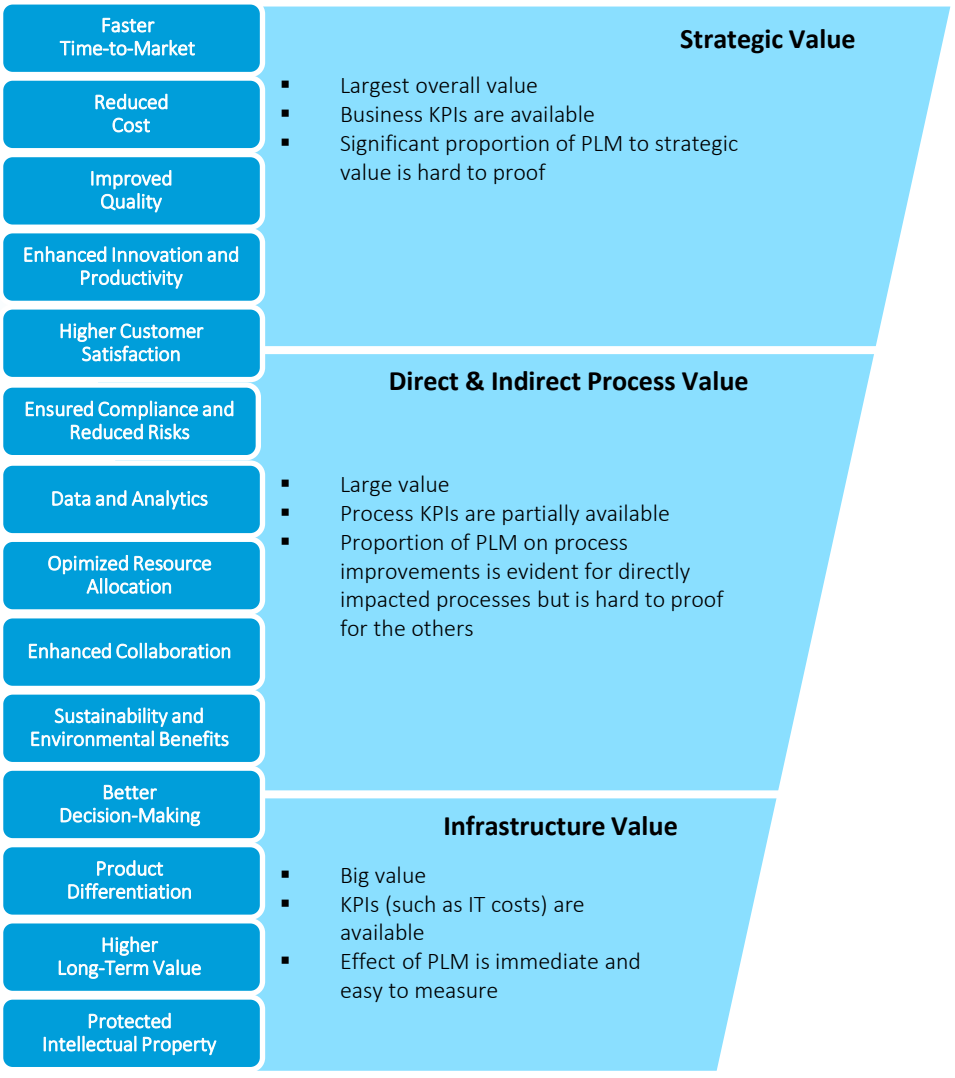


Figure 1 PLM Value Model

The magnitude of value very much differs between these value areas.

If, for example, a PLM program is mainly driven by IT, a big focus is on the infrastructure value. If now, for example, a conversion from an on-prem PLM solution to a SaaS solution is considered, the expected value is to be determined. This infrastructure value, however, is often lower than the one from improving business processes and extending PLM to new ones. Therefore, in such a case, the overall value of a SaaS conversion can be boosted if at the same time additional processes are targeted by PLM.

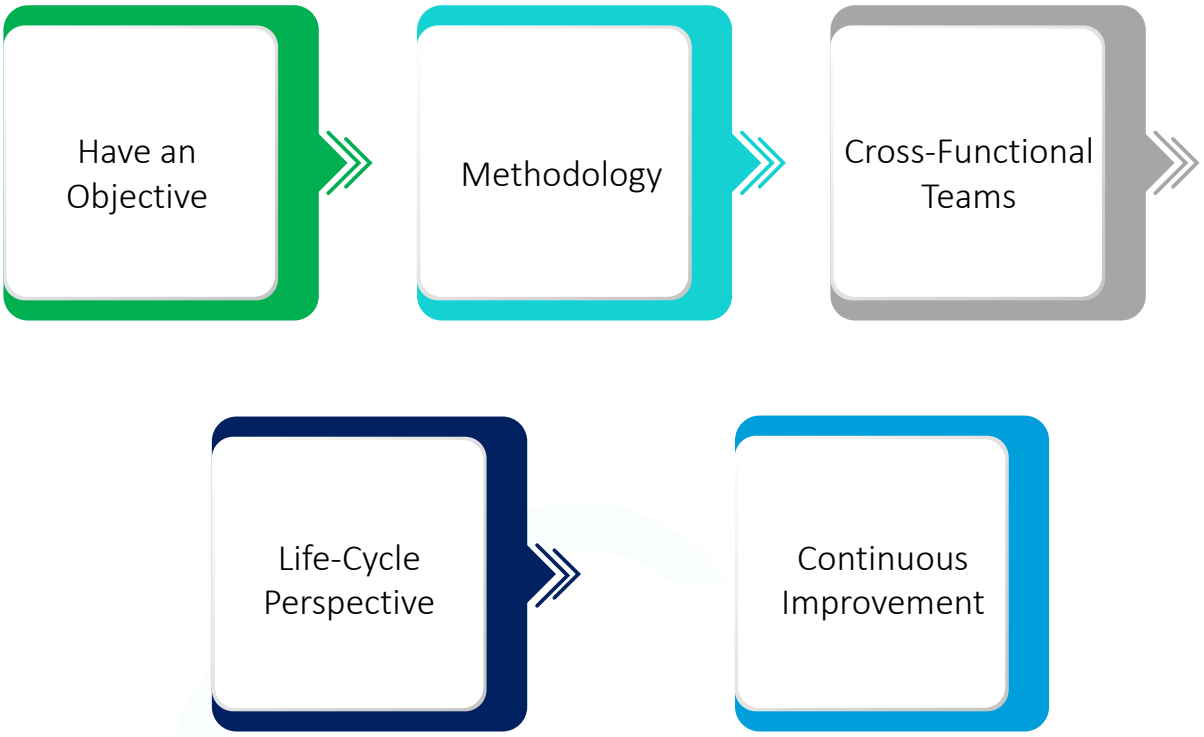
Value Analysis

Value analysis is a systematic and structured approach used to evaluate and improve the value or cost-effectiveness of products, services, processes, or systems. It is often employed in engineering, manufacturing, project management, and various other fields to optimize the use of resources while maintaining or enhancing quality.

Key aspects in analyzing value are:

Definition of Value	**Value** in this context is not just about cost but encompasses the overall utility and satisfaction a product or service provides to its users. It's the relationship between functionality and cost.
Information Gathering	**Collect** data on the product, process, or system in question.
Functional Analysis	**Identify** the core functions or features provided by the product or process.
Creativity and Brainstorming	**Generate ideas** for improving the value, including reducing costs or improving functionality.
Evaluation and Selection	**Assess and prioritize** the generated ideas.
Cost-Benefit Analysis	**Value analysis** often involves detailed cost-benefit analysis to ensure that any proposed changes provide a clear financial advantage.

Analyzing value requires:



Value analysis can help organizations become more efficient and cost-effective by identifying opportunities for improvement in products, services, and processes. It encourages a holistic and structured approach to problem-solving, with the ultimate goal of delivering more value to customers while managing costs effectively.

Value Creation

Value of PLM is created during the realization of a roadmap. The target value is identified and analyzed at the beginning and also for each next phase. After the successful deployment of a phase, additional value is created.

Depending on decisions within a specific PLM implementation & deployment phase, this value, however, may be created in different sizes and at different times.

An example of such a decision is to implement a set of capabilities by either (a) configuring the solution or (b) customizing it.

Strategic Value

At the strategic level the value of configuring and customizing a PLM solution is typically the same. If, however, the company has an IT strategy to move to cloud or SaaS based solutions in the next years, and if customizing such solutions is limited, then configuring creates higher value.

Process Value

At the process-level we must compare both the initial investment costs and the value of (a) and (b).

For (a) configuring we need to develop working methods which align the processes with the configured solution or we even must redefine the processes. The efforts for harmonization and alignment between all stakeholders may be huge. The needed capacity for configuring the system is of course small and component tests are easy. Process-level tests for user acceptance, however, may need more efforts. And also the efforts to ensure full adoption of a configured system should not be underestimated.

For (b) customizing we mainly need a large capacity for development and testing. Assuming the requirements are realized as requested, the efforts for learning & adoption are smaller.

All in all, the initial investments of configuring the solution are only smaller than customizing it if the processes are supported very well by the standard PLM functionalities, if new ways of working can be aligned fast, and if adoption is efficient.

At the process-level, the value of configuring the solution and making compromises is often smaller than the value of customizing it to exactly the needs of the business. The size of this difference mainly determines the overall value, as shown by the pictures below.

Infrastructure Value

At infrastructure level, both cases may not create a lot of value. But the overall cost may differ a lot: While typical recurring maintenance costs for configurations may be around 10% of the investment, the maintenance cost of customizations may be up to 30%. Therefore, total cost of ownership (TCO) for customizations is much higher.

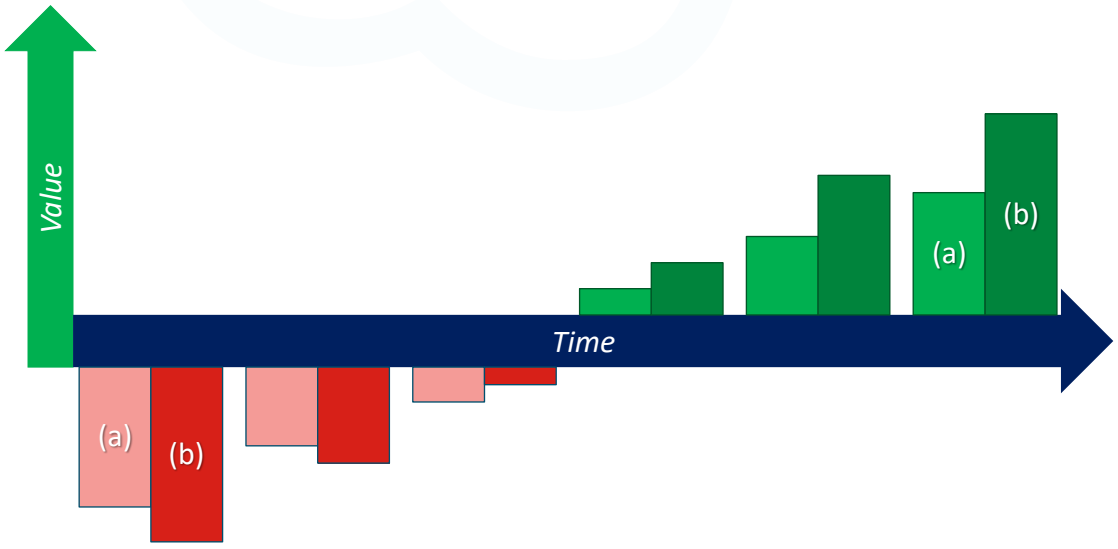


Figure 2 ***Value Profile 1****: customizations generate much higher process-value than configurations of the solution.*

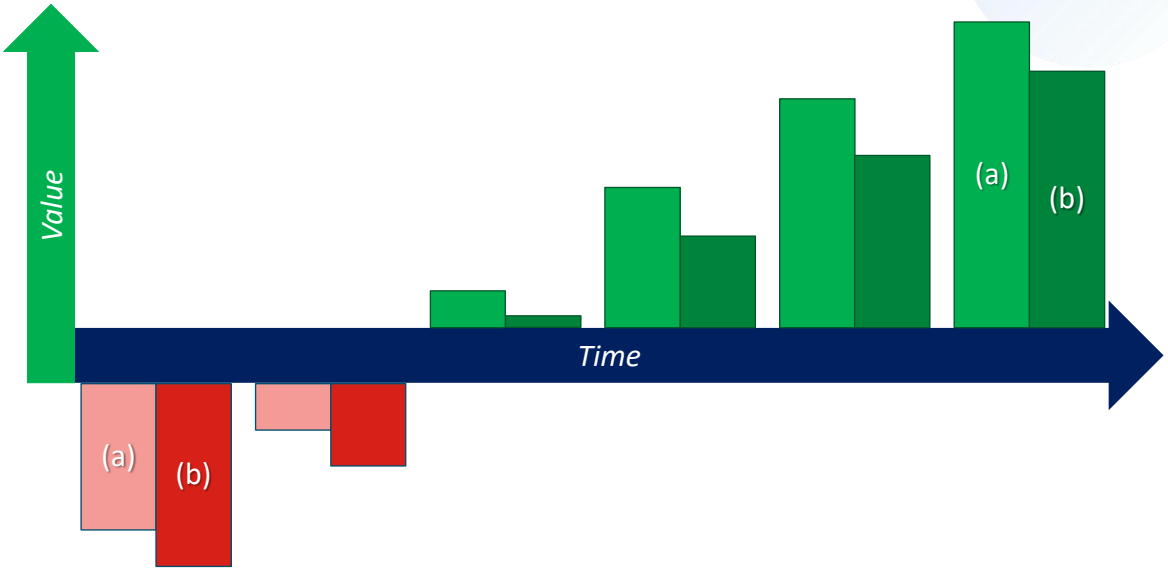


Figure 3 ***Value Profile 2****: customizations generate only slightly higher process-value than configurations of the solution*

In summary, value is not created by implementation of new functionalities and releasing them in the PLM solution. It is created by successful deployments to the organization. This includes smoothly running system integrations, completed data consolidations, delivered learning programs, and broad user adoption.

Value Measurement

To measure PLM value, organizations often use key performance indicators (KPIs), surveys, customer feedback, and financial analyses.

The specific metrics and methods vary depending on the organization's goals and the industry it operates in.

Establishing clear benchmarks before implementing a PLM system is needed to facilitate effective measurement of its value over time.

The approach consist of:

Defining value criteria

Value criteria are the measurable factors that contribute to the overall value of a project. These criteria are usually derived from stakeholders' needs and expectations and can include financial, functional, technical, operational, adoption aspects.

Establishing a value baseline

Before any changes or implementation are made, it is important to establish a baseline to measure the existing value. This provides a starting point for assessing the impact of any proposed implementation.

Implementing

The action plans are executed to introduce the identified implementation. Monitoring is crucial during this phase to ensure the changes yield the anticipated value improvements. These activities require resources, timelines, responsibilities, and potential risks.

Measuring and reviewing outcomes

Post-implementation, it is vital to measure the results against the set value criteria. This evaluation determines the success of the value management process and highlights areas for ongoing Implementation.

Return on Investment (ROI)

ROI is a measure to estimate the financial performance and profitability of an investment or a business initiative. It is calculated prior to an engagement by comparing the program or initiative budget versus the expected monetary benefit. Such an ROI calculation is different from Value Management which is a more comprehensive approach which considers both financial and non-financial aspects to optimize the overall value and is executed along the program or initiative itself.

You get the expected ROI by dividing the net gain or profit from an investment by the initial cost or investment outlay and then multiplying the result by 100. The ROI is therefore a percentage, and the formula for it is:

ROI = (Net Gain or Profit / Initial Cost or Investment Outlay) * 100.

Here are some key points related to the ROI approach:

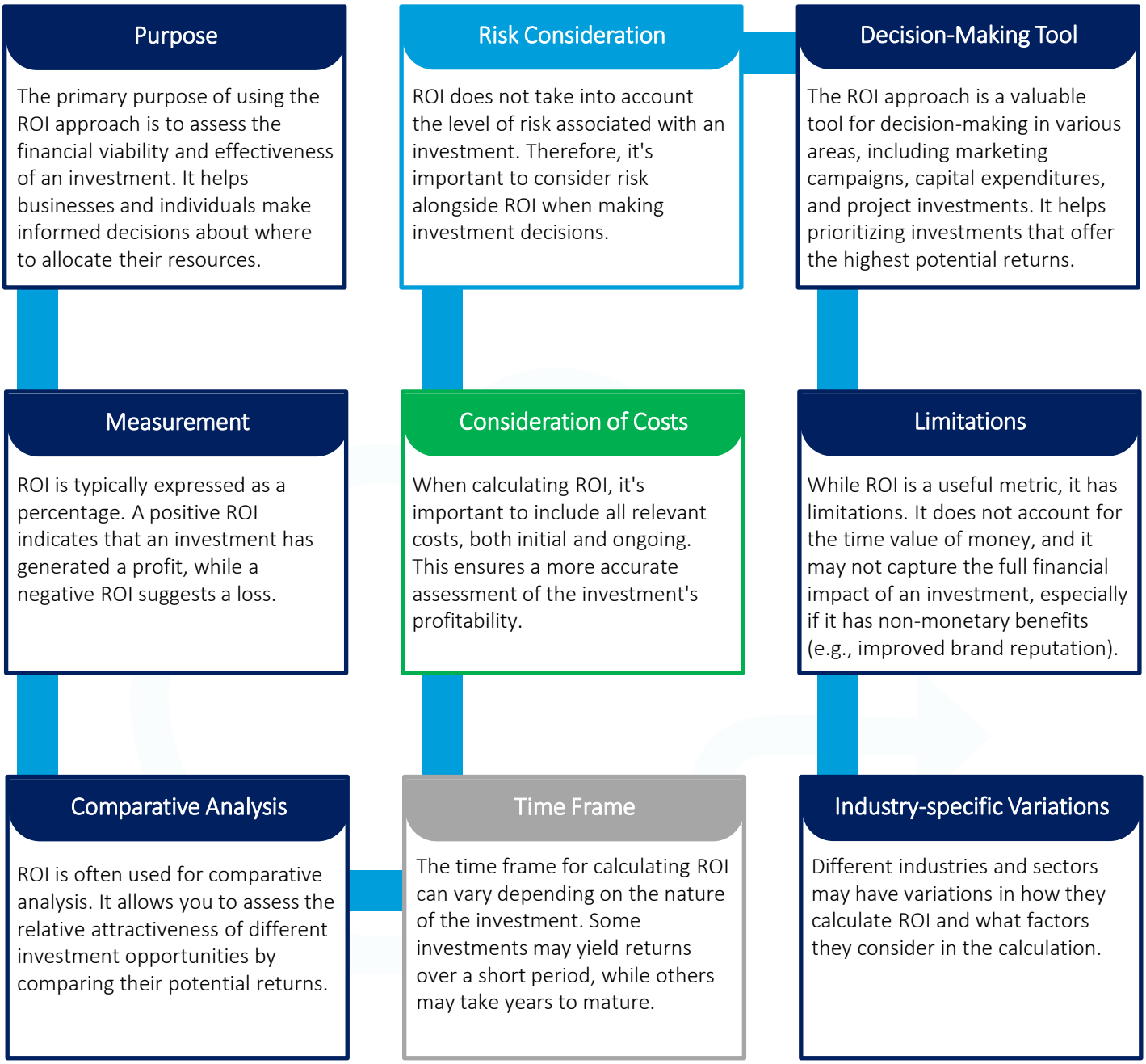


Figure 4 Dependency on ROI

In summary, the ROI is a fundamental financial analysis tool that helps assessing the profitability of investments. It is widely used for decision-making, from finance and business to project management. However, it should be used in conjunction with other metrics and considerations to make well-informed decisions.

Conclusion

Value management in a PLM program is essential for several reasons:

- Maximizing ROI: PLM programs are significant investments. Value management ensures that the resources, time, and money invested in the program yield a high return on investment (ROI).
- Alignment with Business Goals: Value management helps align the PLM program with the broader business goals and objectives of the organization. This ensures that the PLM program directly contributes to the overall success of the company.
- Cost Control: Value management can help identify and eliminate inefficiencies and unnecessary expenses in the PLM program, thus controlling costs and improving the program's cost-effectiveness.
- Risk Mitigation: By assessing the value and benefits of the PLM program, you can identify and mitigate risks that might hinder the successful implementation and operation of the program.
- Prioritization: Value management helps in prioritizing different aspects of the PLM program. It allows you to focus on the most critical areas that will have the most significant impact on the organization.
- Measurement and Accountability: It establishes a framework for measuring the success of the PLM program and holds responsible parties accountable for achieving the defined value and benefits.

In summary, value management is an approach that can be applied in various contexts to improve decision-making, enhance efficiency, and create more value. It's particularly valuable in project management, process improvement, and strategic planning, but its principles can be adapted to fit the specific needs of different industries and organizations.

Value management for a PLM program is crucial for ensuring that it aligns with business goals, delivers a strong ROI, and remains a valuable asset to the organization. It involves strategic planning, assessment, and continuous improvement to make the most of the PLM program's potential.

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