Chapter 3:
Feasibility Analysis
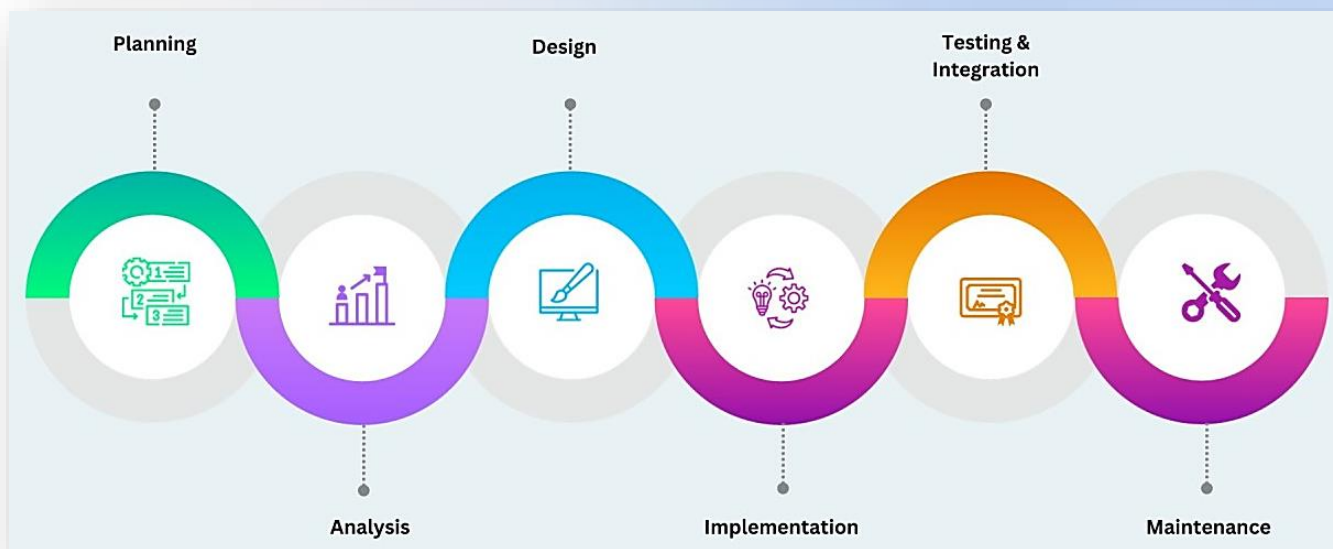
Presented by: Elahe Habibi

Table of Contents

- **Sample of The Real Project**

- **Feasibility Analysis**

- **Introduction To PMBOK**

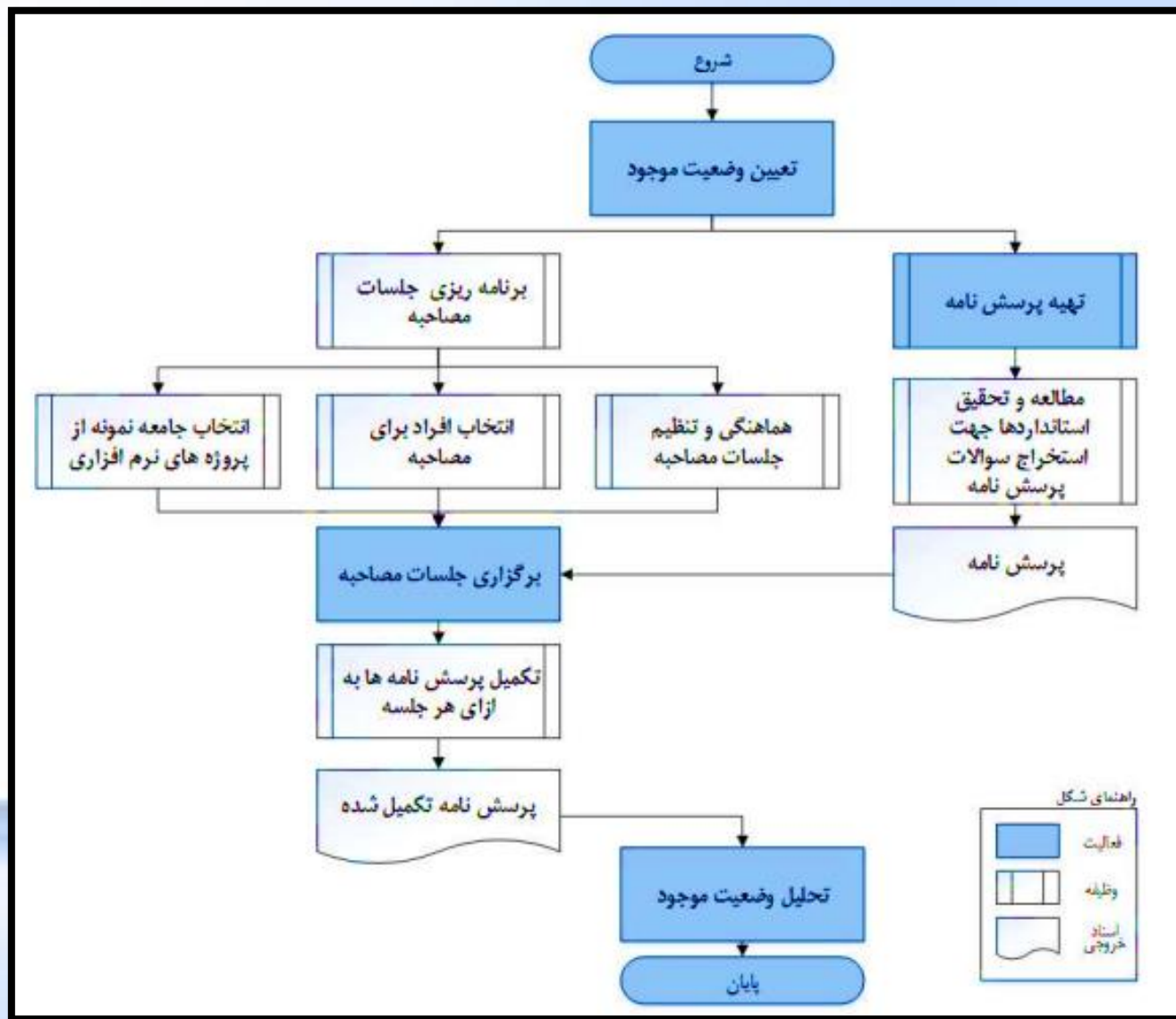- **Project Management**

Sample of The Real Project (1)

عنوان پروژه: بومی سازی متدولوژی تولید و توسعه نرم‌افزار
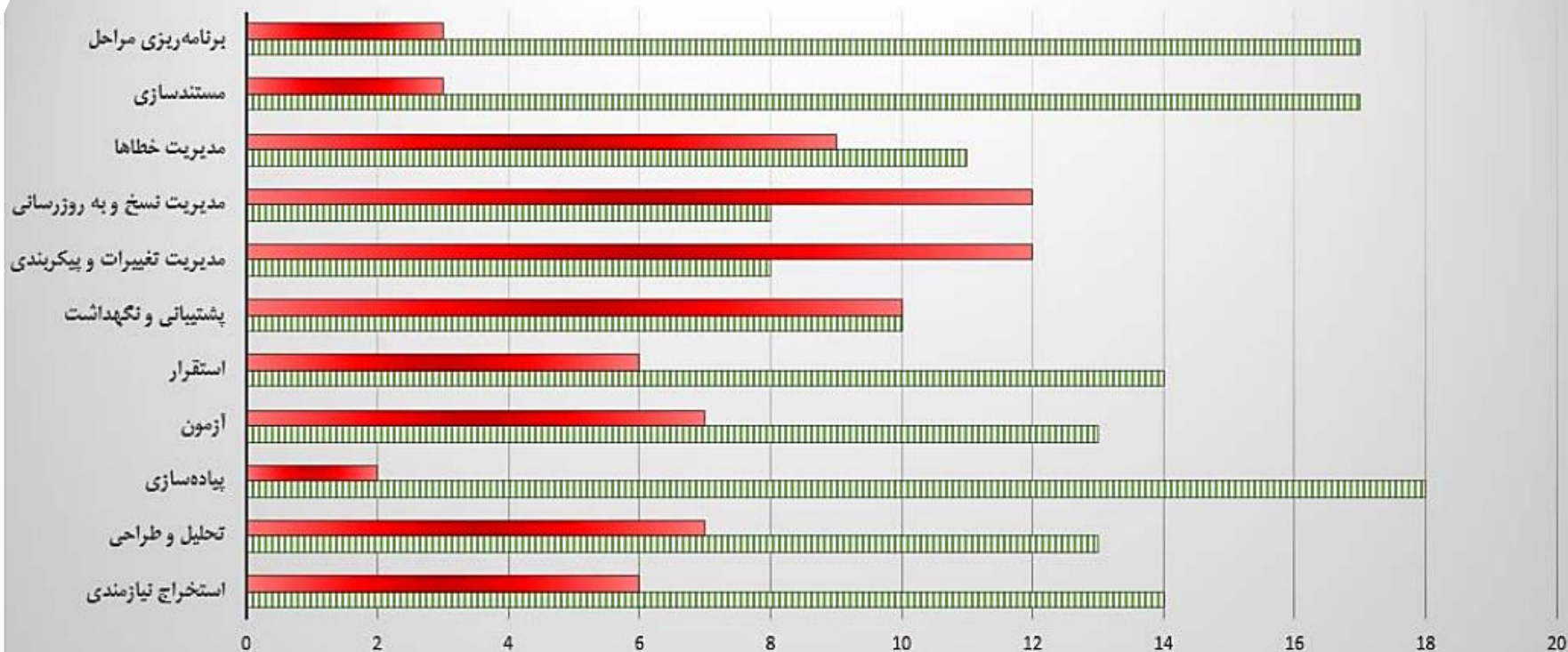
سال ۱۳۹۸ – پژوهشگاه نیرو

Sample of The Real Project (2)

Sample of The Real Project (3)

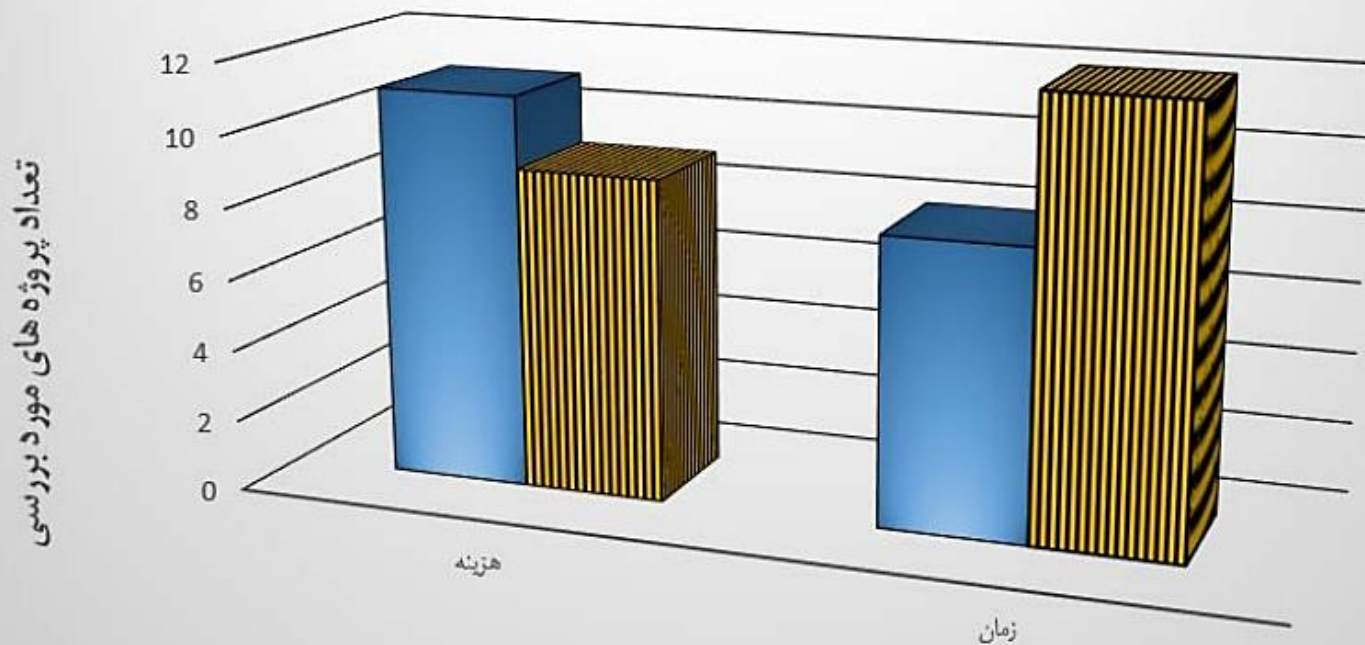انجام مراحل چرخه حیات نرم‌افزار

	استخراج نیازمندی	تحلیل و طراحی	پیاده‌سازی	آزمون	استقرار	پشتیبانی و نگهداشت	مدیریت تغییرات و پیکربندی	مدیریت نسخ و به روزرسانی	مدیریت خطاها	مستندسازی	برنامه‌ریزی مراحل
عدم انجام	6	7	2	7	6	10	12	12	9	3	3
انجام	14	13	18	13	14	10	8	8	11	17	17

Sample of The Real Project (4)

تطابق زمان و هزینه با برنامه‌ریزی

	هزینه	زمان
تطابق	11	8
عدم تطابق	9	12

Sample of The Real Project (5)

Sample of The Real Project (6)

وجود معیار قابل اندازه‌گیری در پیشرفت و کیفیت کار

	پیشرفت کار	کیفیت کار
وجود معیار	6	3
عدم وجود معیار	14	17

Sample of The Real Project (7)

چالش‌های استخراج شده از پروژه‌های مورد بررسی
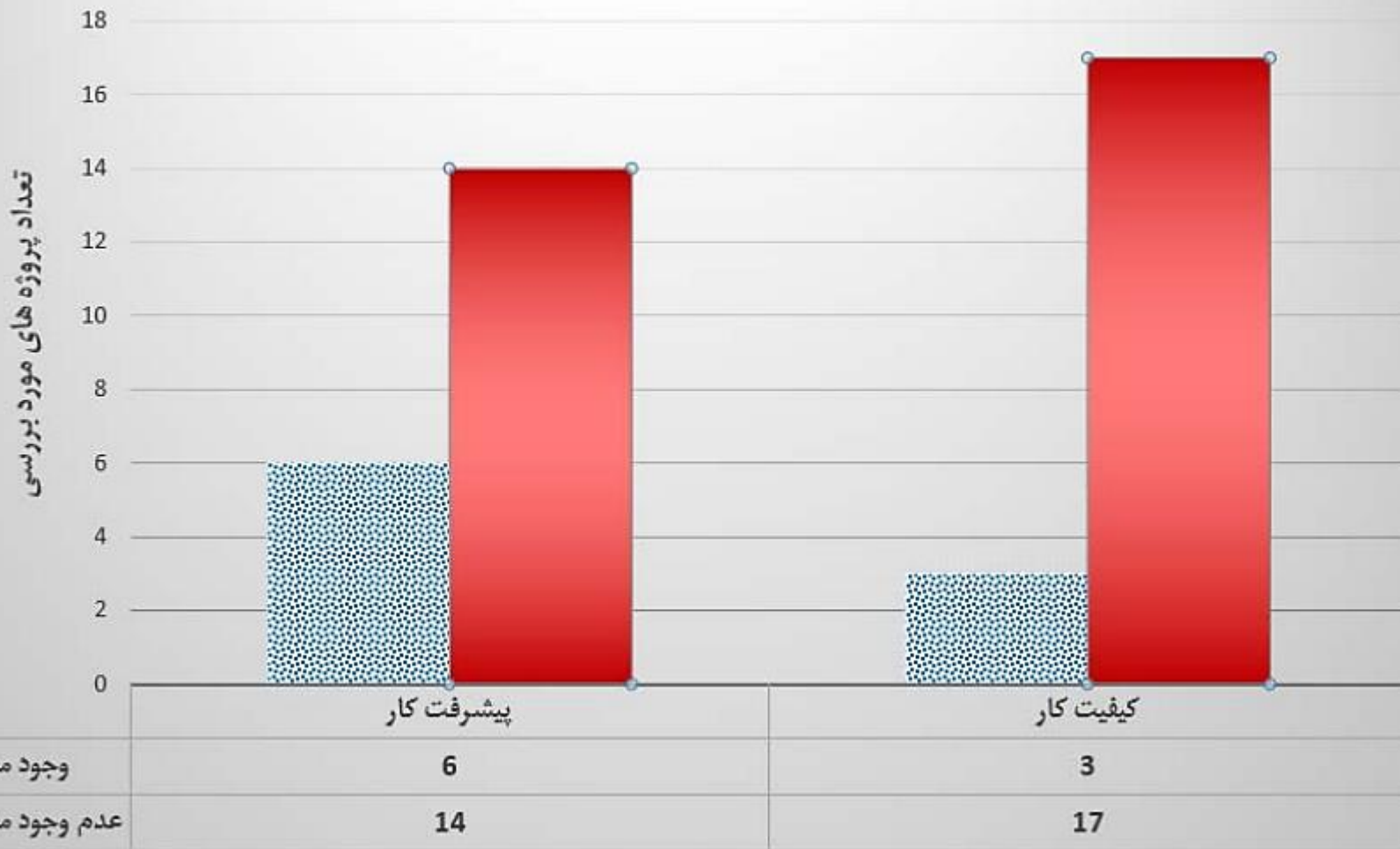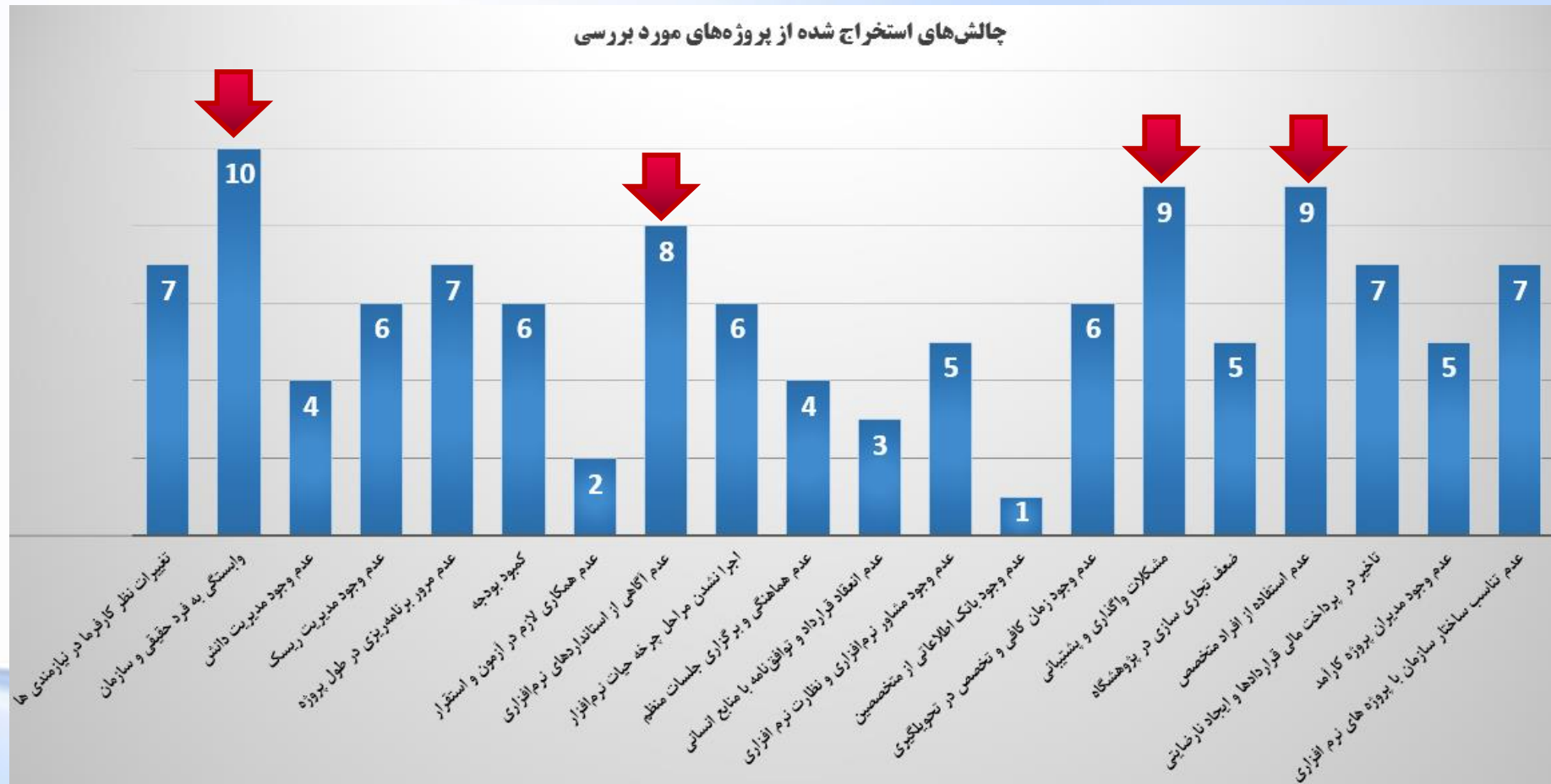
Feasibility Analysis (1)

- Feasibility analysis involves assessing your <u>new business idea</u> **in detail** to determine if it will be viable.

Feasibility Analysis (2)

- **Types of Feasibility Study**

  ✓ **Technical Feasibility**

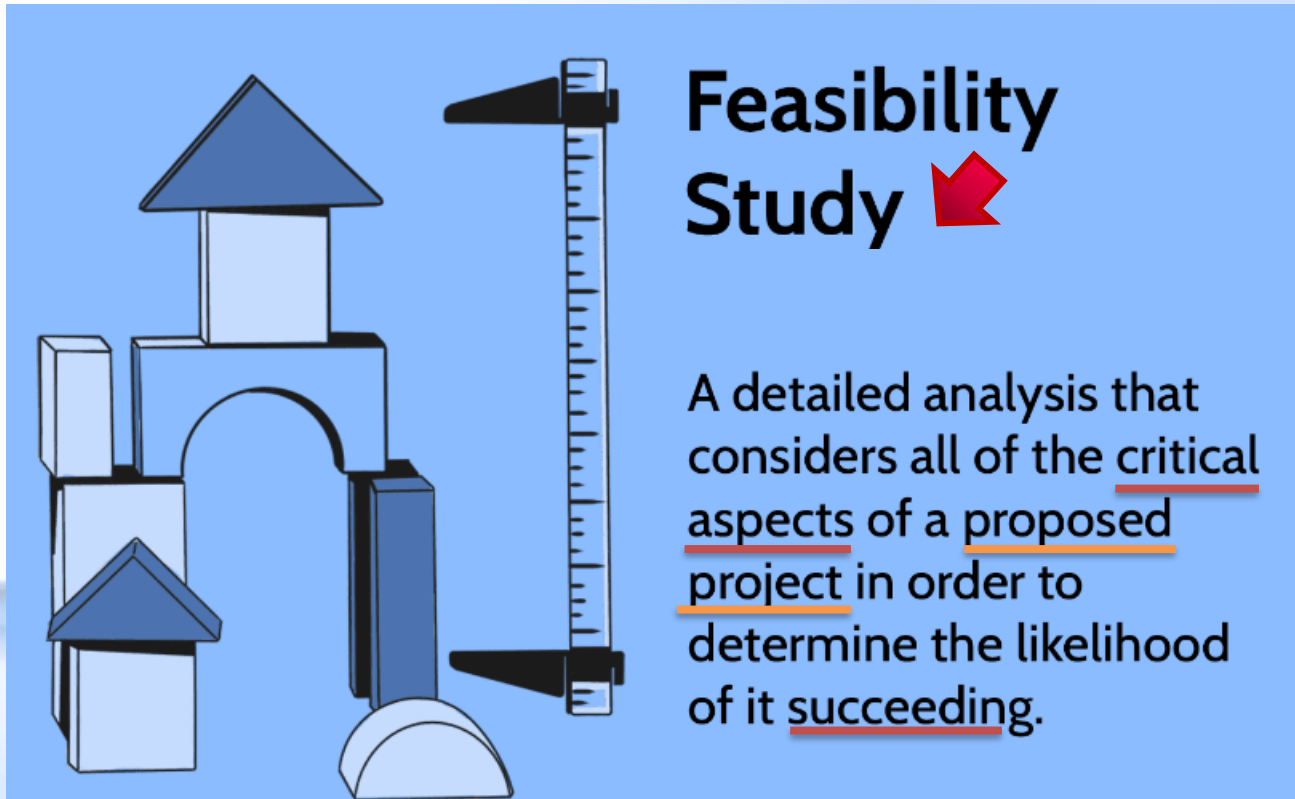 ❖ Technical Feasibility analyses and evaluates the project's current resources, including hardware and software along with the technical requirements of the proposed system.

  ✓ **Economic Feasibility**

  ❖ Economic feasibility in terms of software development helps companies to examine the development costs and financial gains.

  ✓ **Legal Feasibility**

  ❖ Legal feasibility is one of the most important types of feasibility studies in project management because, even if money is abundant, each country's laws must allow the legal implementation of the project.

Feasibility Analysis (3)

- **Types of Feasibility Study (Cont.)**

  ✓ **Operational Feasibility**

    ❖ Operational feasibility investigates how a new project will affect your company's daily processes, what procedures should be implemented, and what efforts should be made to keep it running.

  ✓ **Scheduling Feasibility**

    ❖ Scheduling feasibility is a type of feasibility that helps you to set realistic deadlines and adhere to them.

Introduction To PMBOK (1)

Project Management Body Of Knowledge

- The Project Management Body of Knowledge (PMBOK) is a <u>set of standard</u> terminology and guidelines (a body of knowledge) for **project** management.

- **Project:** <u>"A temporary endeavor undertaken to create a unique product, service or result"</u>

  - Unique product, service or result

    - ✓ Presence of repetitive elements doesn't affect uniqueness

  - Temporary

    - ✓ Has a definite beginning and a definite end

  - Drive change

    - ✓ Move from current state to a desired future state

https://www.pmi.org/pmbok-guide-standards/foundational/pmbok

Based A Guide to the Project Management Body of Knowledge, (PMBOK® Guide) - Sixth Edition

Introduction To PMBOK (2)

- **Project Management:** "The application of knowledge, skills, tools and techniques to project activities to meet project requirements".

- **Process groups:**

Introduction To PMBOK (3)

- Initiating: processes performed to define a new project or a new phase of an existing project by obtaining authorization to start the project or phase.

- Planning: Those processes required to establish the <u>scope</u> of the project, refine the <u>objectives</u>, and define the course of action required to attain the objectives that the project was undertaken to achieve.

- Executing: Those processes performed to complete the work defined in the project management plan to satisfy the project specifications

Introduction To PMBOK (3)

- Monitoring and Controlling: Those processes required to track, review, and regulate the progress and performance of the project; identify any areas in which changes to the plan are required; and initiate the corresponding changes.

- Closing: Those processes performed to finalize all activities across all Process Groups to formally close the project or phase.

Project Management (1)

Initiating

Define a new project or a new phase of an existing project.

- Appoint project manager.
- Assess and define the scope and goals of the project.

Planning

Establish project scope and objectives, and define how to meet objectives.

- Develop a workflow to ensure that teams meet vital benchmarks for project completion.
- Establish scope at a more granular level.
- Assess checkpoints.
- Measure and allocate project materials.
- Consider timetables.

Executing

Complete defined work.

- Manage teams.
- Monitor timelines.
- Ensure project stays within budget and timeframe.
- Balance stakeholder involvement.
- Ensure that each step of the project is leading toward the stated outcomes from the initiating phase.

Monitoring and Controlling

Track, review, and regulate the progress.

- Track progress and address any challenges that arise.
- Measure project execution against project planning and project outcomes.
- Review budget and reassess costs.
- Ensure dependent processes are on schedule.

Closing

Formally close the project.

- Determine if project was completed within budget and on time.
- Perform due diligence for necessary processes.
- Assess the strengths and weaknesses of the project.
- Identify key teammates and hand out awards.

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Project Management (2)

Ten knowledge areas

- **Project Integration Management:** the processes and activities needed to identify, define, combine, unify, and coordinate the various processes and project management activities within the project management process groups.

- **Project Scope management**: the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully.

- **Project Schedule Management:** the processes required to manage the timely completion of the project. Until the 6th edition of the PMBOK Guide this was called "Project Time Management"

- **Project Cost Management:** the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs so that the project can be completed within the approved budget.

- **Project Quality Management:** the processes and activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken.

Project Management (3)

- Project Resource Management: the processes that organize, manage, and lead the project team. Until the 6th edition of the PMBOK Guide this was called "Project Human Resource Management"

- Project Communications Management: the processes that are required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and the ultimate disposition of project information.

- Project Risk Management: the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project.

- Project Procurement Management: the processes necessary to purchase or acquire products, services, or results needed from outside the project team. Processes in this area include Procurement Planning, Solicitation Planning, Solicitation, Source Selection, Contract Administration, and Contract Closeout.

- Project Stakeholder Engagement: the processes required to identify all people or organizations impacted by the project, analyzing stakeholder expectations and impact on the project, and developing appropriate management strategies for effectively engaging stakeholders in project decisions and execution.

Project Management (4)

PMBOK Matrix

Knowledge Areas	Process Groups				
	Initiating	Planning	Executing	Monitoring and controlling	Closing
Project integration management	**4.1** Develop project charter	**4.2** Develop project management plan	**4.3** Direct and manage project work **4.4** Manage project knowledge	**4.5** Monitor and control project work **4.6** Perform integrated change control	**4.7** Close project or phase
Project scope management		**5.1** Plan scope management **5.2** Collect requirements **5.1** Define scope **5.4** Create WBS		**5.5** Validate scope **5.6** Control scope	
Project schedule management		**6.1** Plan schedule management **6.2** Define activities **6.3** Sequence activities **6.4** Estimate activity durations **6.5** Develop schedule		**6.6** Control schedule	
Project cost management		**7.1** Plan cost management **7.2** Estimate costs **7.3** Determine budget		**7.4** Control costs	
Project quality management		**8.1** Plan quality management	**4.3** Manage quality	**8.3** Control quality	
Project resource management		**9.1** Plan resource management **9.2** Estimate activity resources	**9.3** Acquire resources **9.4** Develop team **9.5** Manage team	**9.6** Control resources	
Project communications management		**10.1** Plan communications management	**10.2** Manage communications	**10.3** Monitor communications	
Project r management		**11.1** Plan risk management **11.2** Identify risks **11.3** Perform qualitative risk analysis **11.4** Perform quantitative risk analysis **11.5** Plan risk responses	**11.6** Implement risk responses	**11.7** Monitor risks	
Project procurement management		**12.1** Plan procurement management	**12.2** Conduct procurements	**12.2** Control procurements	
Project stakeholder management	**13.1** Identify stakeholders	**13.2** Plan stakeholder management	**13.3** Manage stakeholder engagement	**13.4** Monitor stakeholder engagement	

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End of Session 3

Any Question?!