System analysis

Lec3 (business planning)

النقط اللي هناقشها في المحاضره

A framework for strategic system development

      1-Mission and Vision Statement

      2-SWOT Analysis

*Business Case

 * IS Projects

* Evaluation of System Requirements

* Feasibility Study

*Setting Priorities

 *Preliminary Investigation

BUSINESS PLANNING

The IT team reviews a proposal to determine if it presents a strong business case.

The term business case refers to the reasons, or justification, for a proposal.

IT team must understand and support the firm's long-term strategic goals.

*بتوع ال IT بيشوفوا هل البيزنس د ه ينفع نشتغل عليه ولا ولا عن طريق مقترح البيزنس

* في ال BUSSINESS CASE بيشوفوا هل في مبررات كافيه علشان اقبل ال proposal واشتغل علي البيزنس

*الناس بتوع ال it بيركزوا علي الخطط طويلة المدي اللي بتقعد عشر سنين مثلا

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Strategic planning is the process of identifying long-term organizational goals, strategies, and resources.

لازم نحدد اهدافنا ومصادرنا ومواردنا والاستراجيات اللي في المستقبل

لازم نفكر لبعد كده ونحط خطه مستقبليه علشان المستقبل

A strategic plan looks beyond day to-day activities and focuses on a horizon that is three, five, ten, or more years in the future.

مش بنركز بس علس الانشطه اليوميه بنفكر لقدام خمس سنين مثلا

Think about a chess game and a company as a player who think for the next 10 steps not only the next

MISSION AND VISSION

The answer might be found in an old story about two stonecutters who were hard at work when a passerby asked them what they were doing. "I'm cutting stones," said the first worker. The second worker replied, "I'm building a cathedral.

Microsoft mission statement
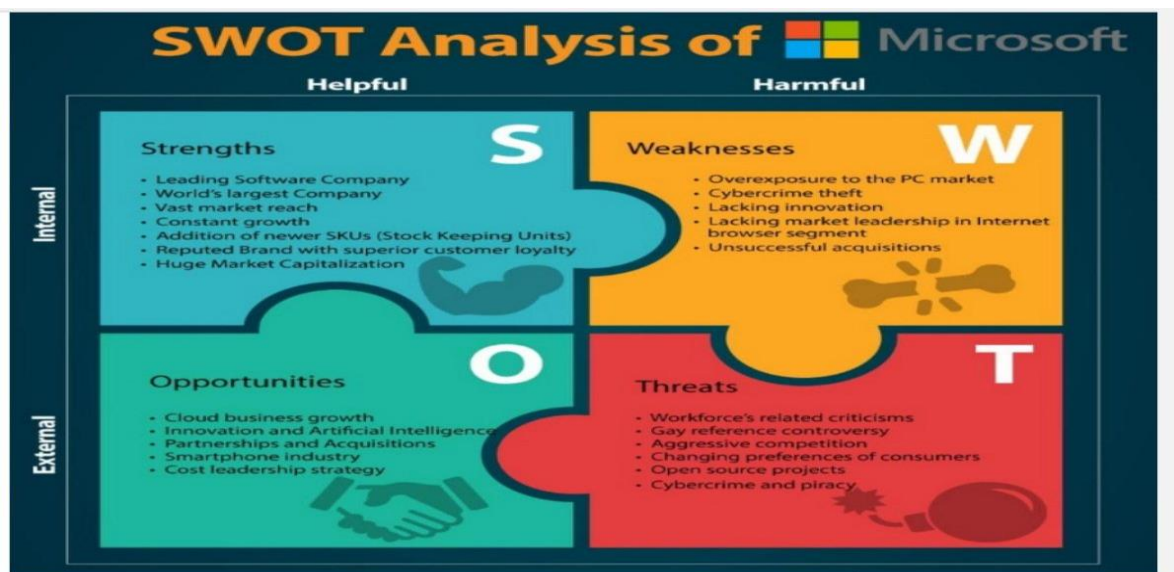
To empower every person and every organization on the plant to achieve amore

Empowerment

IS THE KEY TERM OF THE MISSION ,it represent aprimary activity of the company

ال mission اللي هي empowermentهنا ان نبقي عارفين كلنا كشركه اي الهدف اللي بنسعي لتحقيقه

A SWOT analysis can focus on a specific product or project, an operating division, the entire company, or the mission statement itself.

SWOT Analysis of Microsoft

حاجات جوا الشركه strengths , weaknesses

اما ال threats, opportities من برا الشركه

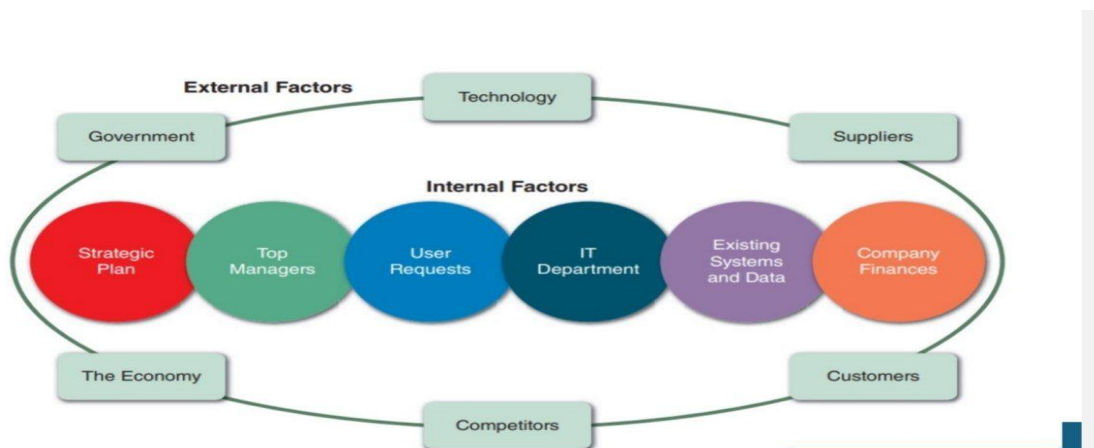The overall aim is to avoid seeking goals that are unrealistic, unprofitable, or unachievable.

The starting point for most projects is called a systems request, which is a formal way of asking for IT support

The Reasons of system Request can be:

1-STRONGER CONTROL(ensure that data is secure and accurate)

2-REDUCED COST(cost-benefit analysis might show that a new system

3-MORE INFORMATION(The system might produce information that is insufficient.)

4-BETTER PERFORMANCE(The current system might not meet performance requirement)

5-improved service(• Systems requests often are aimed at improving service to customer or the users within system)

6-more support(New products and services often require new types or requirements.

●●

* FACTORS THAT AFFECT SYSTEMS PROJECTS

Internal and external factors affect every business decision that a company makes.

Evaluation of system requirement

Many organizations assign responsibility for evaluating systems requests to a group of key managers and users.

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الشركه بتقيم ال request بتاع البيزنس عن طريق مجموعة من المدراء والمستخدمين

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Systems request must pass several tests, called a feasibility study

feasibility study uses four main yardsticks to measure a proposal:

1-opertional feasibility(will be it easy to learn and use)

2-economic feasibility(Will benefits exceed costs)

3-technical feasibility(Do we have the tech resources?)

 4-schedule feasibility(Can we do it in time?)

Tangible benefits are benefits that can be measured in dollars.

مكاسب ماديه تقاس بالدولار

Intangible benefits are advantages that are difficult to measure in dollars but are important to the company

مكاسب معنويه زي سمعة وصيت الشركه

Evaluating Feasibility The first step in evaluating feasibility is to identify and weed out systems requests that are not feasible.

وممكن ال system request اللي مش feasible يبقي feasible في المستقبل
system requests that are not currently feasible can be resubmitted as new hardware, software, or expertise becomes available

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Setting Priorities

The feasibility is not the only thing that can make it a standard for choosing the requirement
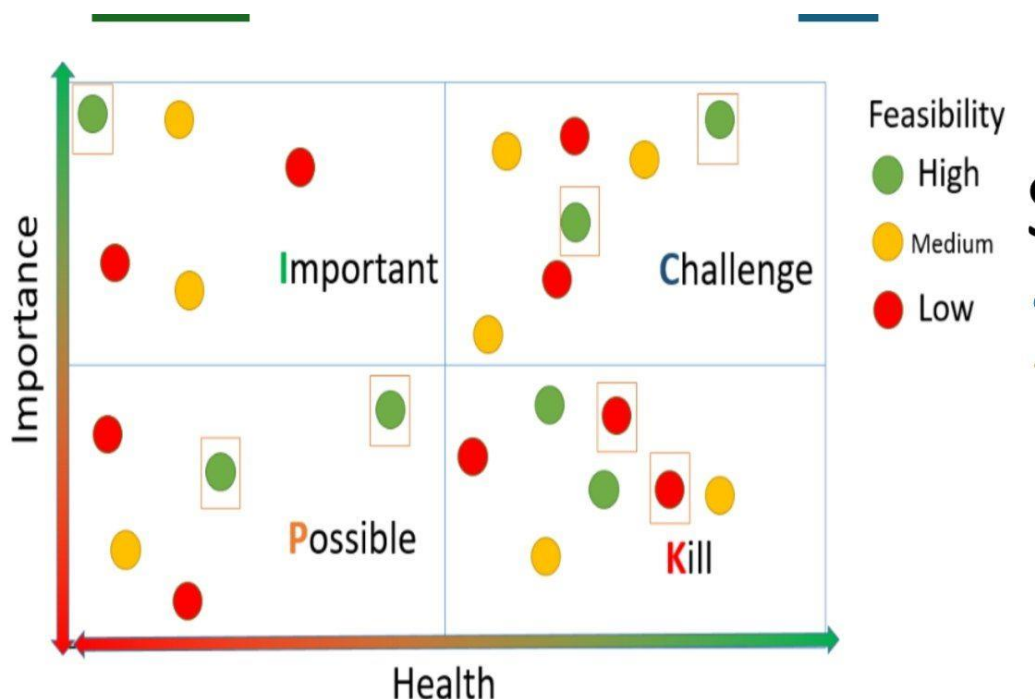
such process have 2 another metrics.

Importance Which processes have greatest impact on the organization's strategic objectives?

ي الـعـمـلـيـات لـها أعظم الـتـأثـيـر علي الاهداف الاستراتجيه لـلشركة

Health (or Dysfunction) Which processes are in deepest trouble

اي العمليات اللي هتسسبب اعمق المشاكل

All requirements can be addressed to a PICK chart

Try to find a request have low health, High feasible and Important

1-Discretionary projects: Projects where management has a choice in implementing them.

2-Nondiscretionary projects : Projects where no choice exists

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PRELIMINARY INVESTIGATION A systems analyst conducts a preliminary investigation to study the systems request and recommend specific action.
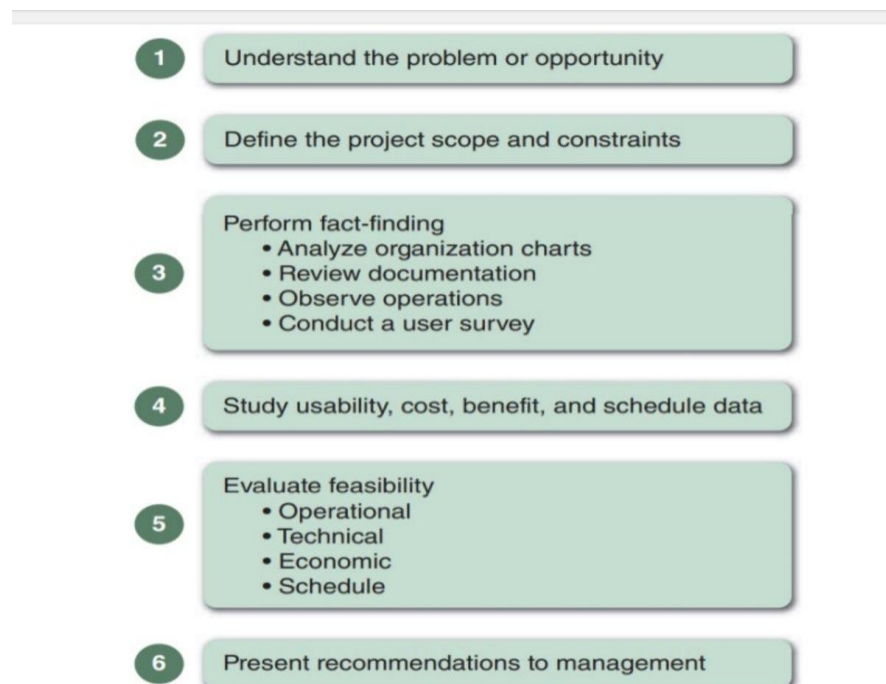
دراسه مبدائيه للمشروع علشان نشوف هنعرف ننفذه ولا لا

the analyst interacts with managers, users, and other stakeholders The analyst performs fact-finding to get the problem or opportunity, project scope and constraints, project benefits, and estimated development time and costs. And report to management

السيستم انالست بيقعد مع اليوزر وبعدين يعمل fact-fining عن طريق ان يحدد المشكله وفرصه حدوث البيزنس والوقت والمكسب والخساره وحدود وقيود البيزنس

Planning the Preliminary Investigation

During a preliminary investigation, a systems analyst typically follows a series of steps

1 Understand the problem or opportunity

2 Define the project scope and constraints

3 Perform fact-finding
- Analyze organization charts
- Review documentation
- Observe operations
- Conduct a user survey

4 Study usability, cost, benefit, and schedule data

5 Evaluate feasibility
- Operational
- Technical
- Economic
- Schedule

6 Present recommendations to management

Step1-understand the problem and opportuntity:

If the systems request involves a new information system or a substantial change in an existing system, systems analysts might need to develop a business profile.

نفهم المشكلة او الفرصة او التغيرات الموجودة في السيستم ونحقق من الحاجات اللي بتاثر علي البيزنس

\A popular technique for investigating causes and effects is called a fishbone diagram

Step2:Define the project scope and constrains

بنحدد حدود البيزنس او القيود

Project scope means defining the specific boundaries, or extent, of the project

Imagine a machine the worker adds to it the cotton to get the fabric, the scope is a bounded context from the Machine starts to work until it finishes.

Already every process in the project has its own bounded context

• Domain Driven Design Pattern

Projects with very general scope definitions are at risk of expanding gradually, زحف without specific authorization, in a process called project creep.

المشروع وتطوره رايح علي فين وهيوصل فين

• Constraints on the system must be identified.

A constraint is a requirement or condition that the system must satisfy or an outcome that the system must achieve

خصائص الconstraints

When examining constraints, their characteristics should be identified

Present versus future. Is the constraint something that must be met as soon as the system is developed or modified

Internal versus external. Is the constraint due to a requirement within the organization

Mandatory versus desirable. Is the constraint mandatory? Is it absolutely essential to meet the constrain

Step3:Perform fact-finding

تقصي الحقائق

تقعد مع الاشخاص بتوع البيزنس وتعمل معاهم انترفيو علشان تفهم اكتر عن البيزنس او تعمل استطلاع راي

The objective of fact-finding is to gather data about project usability, costs, benefits, and schedules.

During fact-finding, the analyst might analyze :

1-organization charts   2- conduct interviews

3-review current documentation

4- observe operations carry out a user survey.

The analysts must keep their eyes on charts while fact-finding, it presents the current state of organization   .

Pareto chart can map the issues of the system arranged by descending to keep track of mistakes processed from the Issue register, the curve is a cumulative to the bar

Step4: Analyze Project Usability, Cost, Benefit, and Schedule date

تحليل امكانية استخدام المشروع والنفع والتكلفه للمشروع

If cost and benefit data were gathered, financial analysis and impact statements can be prepared using spreadsheets and other decision-support tools.

Time and cost estimates should be developed for the requirements modeling tasks for the next SDLC phase

Step5: Evaluate Feasibility

Evaluation of the project's feasibility, beginning with reviewing the answers to the questions

Operational feasibility. Fact-finding should have included a review of user needs, requirements, and expectations.

Technical feasibility. The fact-finding data should identify the hardware, software, and network resources needed to develop, install, and operate the system.

Economic feasibility. Using the fact-finding data, financial analysis tools can be applied to assess feasibility. The cost-benefit data will be an important factor for management to consider.

Schedule feasibility. The fact-finding data should include stakeholder expectations regarding acceptable timing and completion dates

Step 6: Present Results and Recommendations to Management

This step, there are several alternatives

1- It might be that no action is necessary or that some other strategy, such as additional training, is needed.

2- To solve a minor problem, a simple solution might be chosen without performing further analysis.

3- In other situations, it will be recommended that the project proceed to the next phase, which is systems analysis

he report includes an evaluation of the systems request, an estimate of costs and benefits, and a case for action

The specific format of a preliminary investigation report varies. A typical report might consist of the following sections

الريبوت اللي بيتقدم للاداره بيبقي فيه الملخص واخر النتائج وال Recommendations والوقت وتكلفة المشروع

1- Introduction

2-system Request Summary

3-Findings

4-Recommendations

5-Project Roles

6-Time and cost estimates

7-Expected Benefits

8- AppendiX

ماكان من صواب فمن الله وحده الرحمن وما كان من خطأ فمن نفسي والشيطان واستغفر الله لـي ولكم.

أشهد أن لا إله إلا الله استغفرك وأتوب إليك❧