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Information Systems Analysis

*Topic 9:
Analytical Techniques for Understanding a
Complex Organisational Environment*

Objectives

- Define and explain the term 'knowledge-based view of organisations'
- Define and explain the abbreviation PEST
- Demonstrate how PEST can be used
- Apply PEST to a business scenario
- Define and explain the abbreviation SWOT
- Demonstrate how SWOT can be used
- Apply SWOT to a business scenario

Knowledge-Based View of Organisations - 1

- The knowledge-based view of an organisation (what it does, how it does it and why) should be considered as one of the most important resources of the organisation.
- In strategic terms, explicit and tacit knowledge is vitally important as it can provide an organisation with a competitive advantage and high standards of performance.
- It is also one of the most flexible resources as it can increase over time.
- However, an organisation is not always aware of the amount of knowledge available (particularly tacit knowledge) or how to use knowledge efficiently.

Knowledge-Based View - 2

- Knowledge from one part of an organisation needs to be shared with other parts to ensure that both the staff and organisation benefit.
- Knowledge can be deemed a **core competency** for an organisation.
- An information system that encourages the sharing of knowledge across an organisation facilitates its competency.
- Sharing of knowledge develops existing competencies and raises awareness of new knowledge.

Knowledge-Based View - 3

- An example of such a system could be one that connects Research and Development departments with Production, Marketing and Finance and provides access to documents, reports and other information.
- The analyst needs to identify whether the organisation understands and manages its knowledge-base and takes maximum advantage of this valuable resource.

Knowledge-Based View - 4

- An organisation's knowledge needs to be managed to ensure that it is:
 - identified
 - located
 - created
 - developed
 - shared
 - used
 - retained

Knowledge-Based View - 5

- A knowledge-based system can be analysed using various methodologies but is probably best analysed using a combined soft and hard approach, such as Multiview
- This approach acknowledges the relationship between the social and technological factors of the system
- Various techniques such as PEST and SWOT could also be used to analyse the social factors

PEST - 1

- Considers the following factors:
 - P**olitical
 - E**conomic
 - S**ocial
 - T**echnological
- ***Political factors*** assess political influence on an organisation.
- ***Economic factors*** assess local, national and global influence.
- ***Sociological factors*** assess ways in which a society can influence an organisation.
- ***Technological factors*** assess the impact of new and emerging technology on an organisation.

PEST - 2

- The effect of legal and environmental issues on an organisation can also be assessed using PEST.
- It can also be used to understand:
 - an organisation's growth and decline
 - knowledge management
 - strategic planning
 - competitive analysis
 - marketing

PEST - 3

- It is important to clearly identify the subject of a PEST analysis, for example:
 - a strategic option, such as attracting new customers or selling a new product
 - developing a competitive strategy
 - a potential merger with another organisation
 - an opportunity to expand
- The larger and more complex the organisation or project the more useful PEST can be as it can identify problems and issues.
- The purpose of the PEST assessment and its implications must be clearly explained to the participants for maximum benefit.

SWOT - 1

- Refers to:
 - S**trengths
 - W**eaknesses
 - O**pportunities
 - T**hreats
- It is a strategic planning method for gathering, structuring, presenting and reviewing data that specifies the aims of an organisation and identifies the ***strengths, weaknesses, opportunities*** and ***threats*** that are relevant to achieving the aims.

SWOT - 2

- A SWOT analysis:
 - provides a framework for reviewing the strategy, position and direction of an organisation.
 - measures a business's market and potential according to external factors
 - helps focus activities into areas of strength and where the greatest opportunities lie. It is used to identify dangers in the form of weaknesses and both internal and external threats.

Strengths

- An analyst needs to identify an organisation's strengths, such as:
 - what characteristics give it an advantage over other organisations?
 - what are the advantages over other organisations?
 - what activities are done well?
 - where are the greatest opportunities?
 - what are its assets?
 - what experience and knowledge does it possess?

Weaknesses

- An analyst needs to identify an organisation's weaknesses, such as:
 - the characteristics that place the firm at a disadvantage
 - what improvements could be made?
 - what tasks are done poorly?
 - what resources are lacking?
 - what could be done better?
 - where is money being lost?

Opportunities

- An analyst needs to identify an organisation's opportunities, such as:
 - when are the chances to make greater sales or profits?
 - what new needs of customers could be met?
 - what economic trends could benefit the organisation?
 - are there beneficial political and social opportunities?
 - are there technological opportunities?
 - what does the organisation possess that its competitors don't?

Threats

- An organisation can face many threats, for example, ***internal threats***:
 - factors relating to products, costs, budget, performance, quality, people, skills, adaptability, technology, services, processes, supplies, etc.
- ***External threats***, for example:
 - factors relating to customers, trends, competitors, economics, politics, society, culture, technology, environment, media, law, etc.

Documenting SWOT Analysis

Strengths



Weaknesses

Opportunities

Threats

SWOT - Matching and Converting

- Another way to use SWOT is for:
 - **Matching**
 - **Converting**
- **Matching** is used to find competitive advantages by matching strengths with opportunities.
- **Converting** is used to apply strategies to convert weaknesses or threats into strengths and/or opportunities, e.g. finding new sales opportunities.

CATWOE

- CATWOE can also be used for analysis as discussed in Topic 5.
- It could be useful to identify information relating to an organisation's knowledge-base.

Summary

This topic covers:

- the meaning of a knowledge-based view of organisations
- the purpose and potential of PEST
- the purpose and potential of SWOT

References

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