

Is there a prescription for strategic IT decisions?

Case Study

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Company Overview

- PHARMA is a major pharmaceutical manufacturer and distributor with a large distribution network of brand name pharmacy outlets throughout Australia.

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Challenges and Objectives

Challenges

- Pressure to improve the delivery of supplies to its branded pharmacy stores
- ERP system was not adequately supporting manufacturing and supply chain demands
- Having too much stock in a limited local storage capacity
- Basic supply chain management (SCM) component that only facilitated inventory management

Objectives

- Facilitate efficient and timely delivery of stock to all its pharmacies from key distribution points around Australia
- Improve information about supply, demand, and likely ordering patterns of key customers to produce customer analytic data
- Create more predictive and proactive provisioning of supplies

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Proposed Solutions

PHARMA was confronted with two options:

- Implement a completely new ERP system.
- Upgrade their existing system.

Problem Statement

01

Timely solution

There was not sufficient time to allow for careful analysis prior to summarising and highlighting pertinent issues in the business cases

02

Efficient supply chain

Vital in the healthcare industry, particularly given the demand for medication supplies that are readily available, stored correctly and administered before their expiry dates.

03

Improved customer information

Information about supply, demand and ordering patterns of key customers to produce customer analytic data and create more predictive and proactive provisioning of supplies.

Importance of supply chain agility and flexibility

- + A flexible SCM system supports more efficient and adaptable distribution of products.
- + Optimising distribution maximizes profits by improving time-to-market for new medications.
- + The increasing competition in the pharmaceutical industry meant that an SCM with demand forecasting capability is critical to remaining competitive.
- PHARMA's ERP system had a very basic SCM component that only facilitated inventory management making them unable to supply inventory at the right level to achieve higher profit margins.
- Additionally, PHARMA was not able to reach and attain the velocity of inventory turnover required without exposing themselves to risks of holding dated or obsolete stock.

Proposed Solutions

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- Implement a completely new ERP system.
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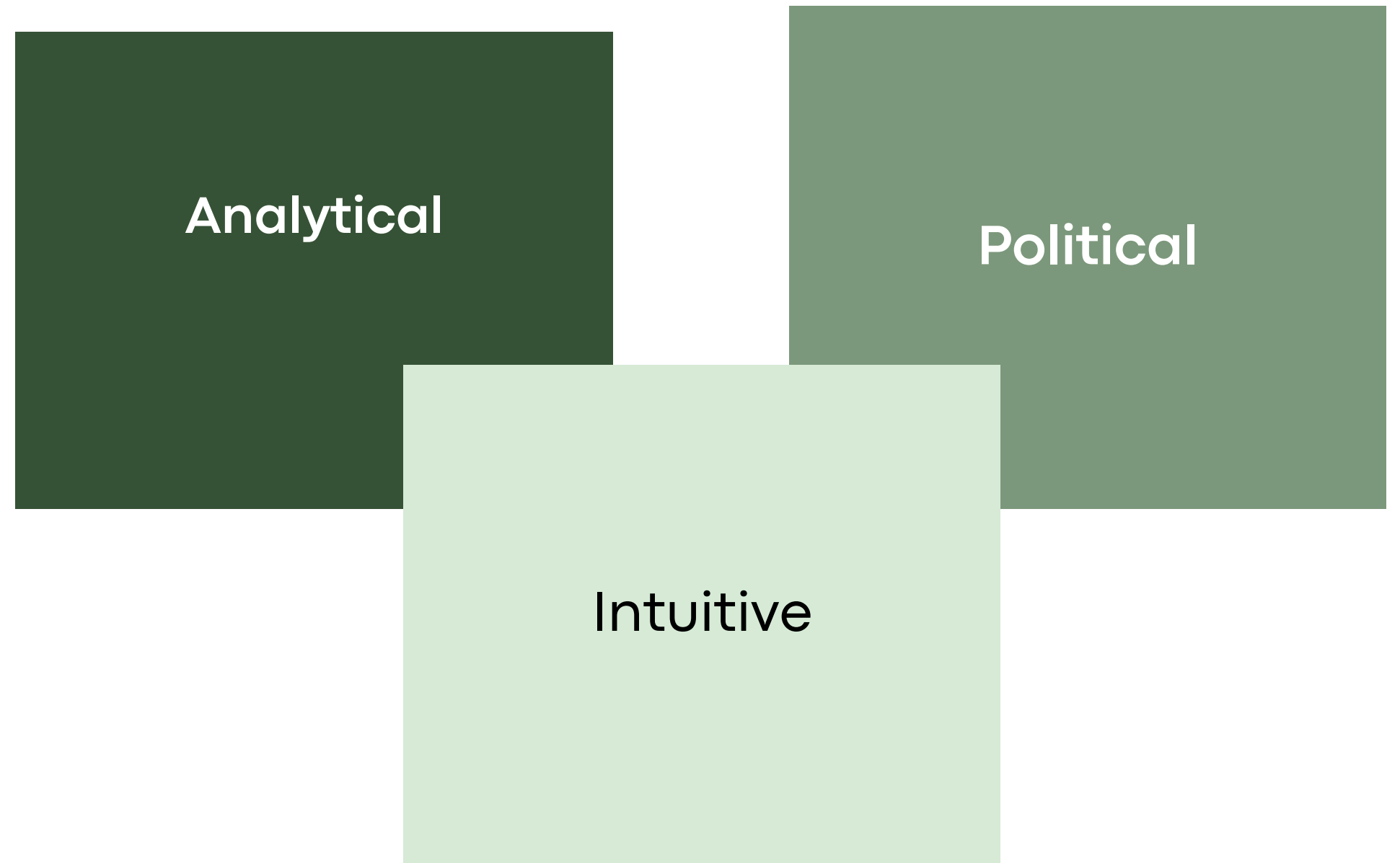
QUESTIONS

- **Question 1**
How would you describe the nature of the strategic IT decision-making process at PHARMA described in this paper? Is it analytical, intuitive or political? Justify your answer.
- **Question 2**
What key steps did PHARMA take when deciding to upgrade their existing ERP software?
- **Question 3**
What problems can you identify with the strategic IT decision process at PHARMA?
- **Question 4**
What factors do you believe influenced the strategic IT decision process at PHARMA more strongly?
- **Question 5**
Why and how did the factors in Question 4 affect the strategic IT decision made?

Question 1

How would you describe the nature of the strategic IT decision-making process at PHARMA described in this paper? Is it analytical, intuitive or political? Justify your answer.

The strategic IT decision-making process at PHARMA, as described in the case study, exhibits a mix of analytical, intuitive, and political decision-making approaches.



- **Analytical**

Analytical decision-making is evident in the process of gathering and analyzing information about the organization's needs and aligning them with the two options available: upgrading or replacing the ERP system. Business cases were also prepared to provide supporting evidence to identify the best return on investment. This suggests a rational and systematic approach to decision-making based on objective data and analysis. However, the case study also highlights that the analysis was not sufficiently comprehensive, and there was a lack of proper business process analysis, which ultimately led to the failure of the decision to upgrade the ERP system.



- **Intuitive**

Intuitive decision-making is also evident in the decision-making process, particularly in the initial decision to upgrade the ERP system. The CEO's personal preference for the upgrade option seems to have been based on intuition, as it was not supported by sufficient evidence or analysis. Additionally, the pressure to make a decision quickly, despite concerns raised by the IT department, suggests a reliance on intuition rather than a thorough analysis of the available options.



• Political

Political decision-making is also evident in the case study, particularly in influencing key stakeholders and their interests. The CEO's preference for the upgrade option, despite its potential risks and limitations, may have been affected by political considerations, such as the desire to maintain a positive public image also the pressure to make a quick decision may have been politically influenced, such as a need to satisfy investors or meet deadlines.



Question 2

What key steps did PHARMA take when deciding to upgrade their existing ERP software?

Identify the
problem

Approaching
the
stakeholders

Review the
different
options

Reliability
study

Make a
decision

- **Identify the problem**

When PHARMA decided to upgrade their existing ERP software, they first had to identify the problem with the existing software. It was outdated and no longer met the needs of the pharmaceutical company.

- **Approaching the stakeholders**

The people who would make the most sense for this important decision in the company were required, within them the CIO, the managers of the manufacturing and sales divisions and a new supply chain manager who was specifically hired to provide input and feedback on the options.

- **Review the different options**

They had to analyze the different existing options, these being either to upgrade and improve the current software or to buy a new one.

- **Reliability study**

a reliability study was conducted to test which of the options would be the best considering the cost-benefit.

- **Make a decision**

Among the options and analyzing the studies conducted a decision was made, which would be to upgrade the existing ERP system and finally implement the system.

Question 3

What problems can you identify with the strategic IT decision process at PHARMA?



Workload

Scope

Time Frame

Mindset

Workload

- Pharma requested a lot of viability research for both solutions.
- Business case descriptions, metrics on how the solutions would maintain stock and maximize company profits and specific efficiency yields and profit margins .
- A detailed cost–benefit analysis report was also demanded for both potential solutions.
- Although such research is needed, asking the CIO and its team to perform this job while researching possible IT solutions ended up overloading the team, resulting in a subpar IT exploration and solution evaluation.

Scope

- The CIO and the team assembled to tackle the issue may not have had enough technical knowledge to provide accurate financial outcome reports nor perform a correct requirements evaluation.
- A possible scenario that would yield better results would be to leave the IT solution exploration to the CIO and the supply chain manager, the requirement engineering to the COO with help from the sales division and the CFO would be responsible for drafting the financial budgets each solution would require.

Time Frame

- The time frame given was clearly too short, and the team wasn't able to understand the assessment couldn't be done properly in such little time.
- A change in the ERP system of a company as big as PHARMA can't be evaluated correctly in 4 months, especially when there was not one but two different approaches being studied.

Mindset

- The sense of urgency for an immediate solution was valued higher than a long term plan to tackle the issue, resulting in a decision that would soon cause problems again.
- Also, the stage-gating mindset existing in the company influenced the executive board, making them less likely to go for a more costly, long term solution. They valued the immediate return in value especially if it meant lesser costs.

Question 4

What factors do you believe influenced the strategic IT decision process at PHARMA more strongly?

**Pre-existing
conditions**

**Team
influences**

**Independent
view of
business cases**

Pre-existing conditions

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graph TD; A[Pre-existing conditions] --> B[Financial distress and potential risks: PHARMA was experiencing financial risks, and the CFO had managed to increase profit margins at PHARMA and reverse the negative fiscal outlook.]; A --> C[The existing IT infrastructure of PHARMA influenced the strategic decision to upgrade rather than replace the ERP. Earlier project structures and the old data warehouse impacted the decision-making process.];
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The existing IT infrastructure of PHARMA influenced the strategic decision to upgrade rather than replace the ERP. Earlier project structures and the old data warehouse impacted the decision-making process.

Team influences

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graph TD; A([Team influences]) --> B[The managers followed risk-averse incremental decision-making steps, which ultimately influenced the outcome by not investing PHARMA's limited capital on a risky new system that would take longer to implement without any guarantee of success.]; A --> C[The decision team's biases towards their previous experiences and knowledge and the social pressure to trust colleagues without questioning their analytics influenced the decision-making process.];
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The decision team's biases towards their previous experiences and knowledge and the social pressure to trust colleagues without questioning their analytics influenced the decision-making process.

**Independent view of
business cases**



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graph TD; A([Independent view of business cases]) --> B([Lack of systematic costing strategies in their analytical process and the need of careful analysis and understanding of business processes and how they relate to the IT system.]);
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**Lack of systematic costing strategies in their
analytical process and the need of careful
analysis and understanding of business
processes and how they relate to the IT system.**

Question 5

Why and how did the factors in Question 4 affect the strategic IT decision made?



**Risk-Averse
Culture**

Biases

**Costing
Strategies**

Risk-Averse Culture

- **Limited Innovation:** A risk-averse culture may discourage the exploration of new and innovative IT solutions or approaches, as there is a tendency to stick with familiar technologies or solutions that have been tried and tested. This can result in missed opportunities for innovation and competitive advantage.

Biases

- **Limited Perspective:** If the decision team is overly reliant on their past experiences and knowledge, they may have a limited perspective on new technologies or approaches.
- **Social Pressure:** If the decision team is under social pressure to trust colleagues without questioning their analytics. This can result in decision-making that is not adequately challenged or scrutinized, leading to suboptimal outcomes.

Costing Strategies

- **Inaccurate cost estimates:** Without a systematic costing strategy, the organization may not have an accurate picture of the costs associated with any IT initiative. This can result in cost overruns and budgetary surprises that can negatively impact the organization's financial performance.
- **Misaligned investments:** Without a systematic costing strategy, the organization may not be able to prioritize IT investments effectively. This can result in misaligned investments that fail to support the organization's strategic goals or deliver the most value.