Group 2

Cobit 5 For E-Health

Introduction and Understanding of the *COBIT 5 Framework*

Cobit 5 divides IT processes into five logical domains, each contributing to the overall governance and management of IT in healthcare. This structure ensures a holistic approach to handling all aspects of IT, from planning to execution.

Principles of Cobit 5

Meeting stakeholder needs

Covering the enterprise end-to-end

Applying a single integrated framework

Enabling a holistic approach

Separating governance from management

RACI Matrix

Responsible (R)

Individuals who carry out the task.
The IT security director and CIO are Responsible for managing risks.

Accountable (A)

The person who is ultimately answerable for the task's outcome.
The hospital board and director are Accountable for ensuring risks are handled.

Consulted (C)

Experts or stakeholders who provide input and consultation.
Other stakeholders, like the CFO and COO, are Consulted or Informed as necessary.

Informed (I)

People who need to be updated on progress or decisions.
Other stakeholders, like the CFO and COO, are Consulted or Informed as necessary.

Business and IT Goal Setting

After understanding the COBIT 5 principles, organisations should identify the business objectives they want to achieve, such as improving the quality of healthcare, reducing operational costs, or increasing patient satisfaction.

The implementation of COBIT 5 then focuses on the strategic alignment of business objectives with IT in the context of e-health. This is done by mapping the health organisation's business objectives with aligned IT objectives, to ensure that technology supports the needs of the health organisation as a whole.

E - Health

Strategy Alignment

Example

Increase the number of patients → IT support with a fast online registration system.

Balanced Scorecard (BSC)

This document uses the Balanced Scorecard approach to align healthcare business objectives with IT goals. It evaluates performance across four perspectives: financial, customer (patient), internal processes, and growth/ learning. This ensures IT supports strategic goals, like enhancing employee productivity and reducing care costs.

BSC dimension	Goals	Metrics
Finance	Being aligned with prices of HZZO	Price of health services
	To stay within the allowed limits	Monthly Report of spent funds
	Annual planning	The percentage of funds spent
Customers	Increasing the number of patients	Number of patients
	Reducing waiting lists	The number of patients on the waiting list
	Quality of patient treatment	Quality indicators of treatment
Internal business processes	Improving the service process	Number of days waiting for service
	The increase in revenues as a good way of invoicing services	The amount of revenue from invoicing
	Reduction of repeated service	Number of repeated service
Learning and growth	Employee training	The cost of employee training
	Training to work on new apparatuses	The percentage of accuracy in the execution of the new apparatuses

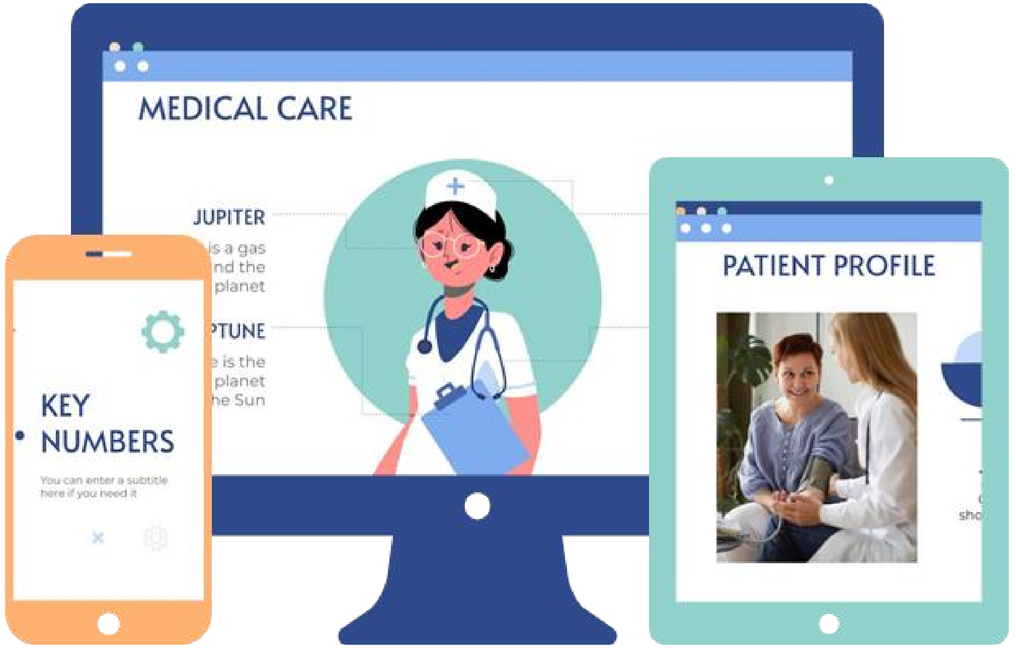
Table 2. Business BSC strategy map of the health

BSC dimension	IT goals
Business contribution of IT	Improved invoicing system services
	Increased employee productivity
	A better flow of patients through the hospital
	Reducing the cost of treatment
Customers	Update application e - ordering
	Regularly updated information on a patient in the hospital information system
	Keep the complaints of patients within the PIS application
Internal Processes	Reduce the waiting time for service by computerizationing the process of waiting patients on the service
	Improve the billing services process by regular updating and improving business application PIS
	Avoid redundancy data by maintaining the BIS system (central information system of the hospital)
Learning and Growth	Enable employees to work with new ERP system
	Train new employees to work with applications

Table 3. IT BSC strategy map as result of the business to e-health strategic alignment

IT/IS Auditing and Risk Management

In an IT/IS audit, COBIT 5 helps assess controls and identify weaknesses and risks. In the healthcare organization audited, it revealed issues in system protection and password management. COBIT 5 highlighted areas to improve security and efficiency of IT systems.



Jurnal Flow

Reference Study

The process begins by gathering drafts from various authoritative sources.

State Domain & Process

the domains and subdomains relevant to IT governance are identified.

Analyst System: Collect Data & Document Interview

Data collection is performed by gathering information from different sources, including documentation and interviews.

Questionnaire & Analysis

A questionnaire is drafted to collect further data.
The data gathered from the questionnaire is analyzed to draft the results of the questionnaire data analysis.

Count Process Capability Model

Using the Cobit 5 Process Capability Model, the results are used to assess the success rate of different processes.

Analyst, Recommendation, & Reporting

Based on the analysis, a draft is prepared that includes general control analysis using the Cobit 5 framework. Finally, the results are compiled into a report, which can include the creation and publication of journals or scientific articles.

Final Result

- Cobit 5 Implementation: Helps improve e-health governance in healthcare organizations and align business strategy with IT.
- Low Maturity: The maturity level of e-health governance is still low, with only 15% of Cobit 5 standards implemented.
- Weaknesses in IT Risk Management and Quality: Weaknesses such as frequent system outages and inadequate password protection exist.
- Recommendations for Improvement: Improvements are needed in IT risk management, information security, and integration of IT solutions into business processes.

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