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Business Intelligence Tools in Shipping based on Dynamic Project Management Framework

What is it?

Business intelligence (BI) is a technology-driven process for analyzing data and delivering actionable information that helps executives, managers and workers make informed business decisions.

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Why is it used?

Improve an organization's business operations through the use of relevant data.

Translate their collected data into valuable insights about their business processes and strategies.

Insights can then be used to make better business decisions that increase productivity and revenue, leading to accelerated business growth and higher profits.

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The Process

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Step 1 — **Acquisition of Data and their Integration into a Data Repository System**

- The 1ˢᵗ of the BI process incorporates the collection od data from different source systems and their Data Warehouse/ Repository placement.

Step 2 — **Organisation of Data**

- In the 2ⁿᵈ step, the data sets are organized into analytics data models to prepare for analysis

Step 3 — **Queries**

- In the 3rd step, the user run analytical queries against the data

Step 4 — **Data Visualisation**

- In the 4ᵗʰ step, the query results are built into data visualisation, dashboards

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Application Examples

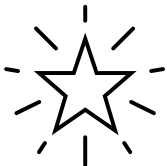|	
Vessel Performance	Allows the user to make informed decisions for more efficient vessel and fleet operations
Bunker Planning	Allows the user to find the optimal bunker port when planning the voyage
Predictive Maintenance:	Allows the user to identify expected malfunctions and act proactively in the voyage planning
Port Congestion	Allows the user to forecast potential congestion in the ports of interest and optimize commercial decision making

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Correlation with the Project Management Framework

→ BI work often involves multiple moving parts and actors

→ These projects can become complex, containing many dependent pieces

→ Critical decisions made at the wrong level can lead the plan to chaos

Hence, a Dynamic Project Management Framework will decrease the risk of failure of a BI project

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Some of these Risks are:

Lack of Communication Between IT and Management Risks Your Project's Success

Some examples of miscommunication are:

- The target isn't made apparent
- Insights from the data aren't clearly stated
- The users' wants and expectations aren't known.

Time to Value of BI Projects Are Unsatisfactory

BI project failure rate is upwards to 80% according to Gartner. Unclear business targets leave analysts with several questions:

- What do I present to my audience?
- Are we using the most desirable data?
- What data should I cultivate for this project?

Data Issues

Some key questions to keep in mind when working on BI projects are:

•Where does the data come from?

•What is the validity?

•Do the data sets make logical sense to analyse?

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