

ESG KPIs for Monitoring

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Introduction

- ESG (Environmental, Social, and Governance) KPIs help companies measure their performance in sustainable and ethical practices.
- This presentation covers examples of KPIs for Environmental, Social, and Governance aspects.
- We will also demonstrate how AI can predict KPIs using the turnover rate as an example.

Environmental KPIs

■ GHG Emissions

- Measures the total greenhouse gases emitted by the company.
- Example: Reduce GHG emissions by 25% by 2025.

■ Energy Consumption

- Tracks the total energy used by the company from all sources (electricity, gas, renewable energy, etc.).
- Example: Report total energy consumption in MWh annually.

■ Water Consumption

- Measures the total amount of water used by the company.
- Example: Report total water usage in cubic meters annually.

■ Waste Generated

- Measures the total amount of waste produced.
- Example: Report total waste generated in metric tons annually.

Social KPIs

■ Turnover Rates

- Measures the rate at which employees leave the company.
- Example: Reduce turnover rates by 15% by 2023.

■ Percentage of Diverse Employees

- Tracks diversity in the workforce.
- Example: Increase percentage of diverse employees by 20% by 2024.

■ Pay Equity Ratios

- Measures the pay gap between different groups.
- Example: Achieve pay equity by 2025.

■ Number of Product Recalls

- Measures the number of product recalls due to safety issues.
- Example: Maintain zero product recalls annually.

Governance KPIs

■ Board Diversity

- Measures diversity within the company's board.
- Example: Achieve 40% board diversity by 2023.

■ Number of Ethical Training Hours

- Measures the total hours of ethical training completed by employees.
- Example: Increase ethical training hours by 30% by 2024.

■ Number of Data Breaches

- Measures the number of data breaches the company experiences.
- Example: Maintain zero data breaches annually.

■ Response Time to Data Breaches

- Measures the time taken to respond to data breaches.
- Example: Reduce average response time to data breaches to under 24 hours.

Predicting KPIs with AI

- AI can be used to predict various company KPIs, improving decision-making and strategy.
- Example: Predicting employee turnover rate.

Predicting Employee Turnover with AI

- Use AI and machine learning to predict employee turnover rates.
- Key steps in the prediction pipeline:

Step 1: Data Collection

- Collect relevant employee data:
 - Demographic data (age, gender, marital status).
 - Job-related data (role, department, salary, tenure).
 - Performance data (job satisfaction, performance rating).
 - Work environment data (work-life balance, work hours).

Step 2: Data Preprocessing

- Clean and preprocess the data:
 - Handle missing values.
 - Encode categorical variables.
 - Scale numerical features.

Step 3: Feature Engineering

- Create new features if necessary:
 - Interaction terms.
 - Transformations of existing features.

Step 4: Model Training

- Train a neural network model:
 - Define the neural network architecture.
 - Compile the model with appropriate loss function and optimizer.
 - Train the model on the training dataset.

Step 5: Model Evaluation

- Evaluate the model using test data:
 - Calculate metrics such as accuracy, precision, recall, and F1-score.
 - Plot training history to observe performance over epochs.

Step 6: Prediction

- Use the trained model to predict turnover on new data.
- Implement the model into the company's HR management system for real-time predictions.

Conclusion

- Monitoring ESG KPIs helps companies improve sustainability and ethical practices.
- Setting clear goals and tracking progress is essential for achieving ESG objectives.
- Predicting employee turnover using AI demonstrates how AI can be used to predict other company KPIs.
- Regular reporting and alignment with standards enhance transparency and accountability.