```
import pandas as pd
from sklearn.linear_model import LinearRegression
import numpy as np

# Real Khaadi data (2004-05 to 2023-24)
data = {
    "Year": list(range(2005, 2025)),  # Using ending year for simplicity
    "Sales": [
        2291, 2511, 2995, 3532, 4087, 5067, 7361, 8557, 10064, 13154,
        17912, 20383, 24743, 29027, 30721, 32019, 36687, 44561, 113000, 155673
    ],
    "Production": [
        2056, 2345, 2800, 3376, 3950, 4412, 6502, 7788, 8938, 11109,
        14374, 17255, 20985, 23761, 25300, 26184, 30919, 37492, 85000, 108298
    ],
    "Employment": [
        1.01, 1.03, 1.08, 1.15, 1.19, 1.24, 1.42, 1.48, 1.56, 1.63,
        1.66, 1.67, 1.72, 1.72, 1.74, 1.75, 1.74, 1.80, 1.84, 1.87
    ]
}

df = pd.DataFrame(data)
print("Khaadi Historical Data (2004-05 to 2023-24):")
print(df)

# --- CAGR Function ---
def calculate_cagr(start_value, end_value, periods):
    return ((end_value / start_value) ** (1/periods) - 1) * 100

# Overall CAGR for Sales
overall_cagr_sales = calculate_cagr(df['Sales'].iloc[0], df['Sales'].iloc[-1], len(df)-1)
print(f"\nOverall Sales CAGR (2004-05 to 2023-24): {overall_cagr_sales:.2f}%")

# CAGR for first 10 years
cagr_sales_first_10 = calculate_cagr(df['Sales'].iloc[0], df['Sales'].iloc[9], 9)
print(f"CAGR for first 10 years (2004-05 to 2013-14): {cagr_sales_first_10:.2f}%")

# CAGR for last 10 years
cagr_sales_last_10 = calculate_cagr(df['Sales'].iloc[10], df['Sales'].iloc[-1], 9)
print(f"CAGR for last 10 years (2014-15 to 2023-24): {cagr_sales_last_10:.2f}%")

# --- Model Training for Prediction (Linear Regression) ---
X = df['Year'].values.reshape(-1, 1)
y = df['Sales'].values

model = LinearRegression()
model.fit(X, y)

# Predict next 5 years (2025-29)
future_years = np.array(range(2025, 2030)).reshape(-1, 1)
predicted_sales = model.predict(future_years)

print("\nPredicted Sales for 2025-2029:")
for year, sale in zip(range(2025, 2030), predicted_sales):
    print(f"{year}: ₹{sale:.2f} crore")

# Predicted CAGR for next 5 years
predicted_cagr = calculate_cagr(df['Sales'].iloc[-1], predicted_sales[-1], len(predicted_sales))
print(f"\nPredicted CAGR for 2025-2029: {predicted_cagr:.2f}%")
```

```
Khaadi Historical Data (2004-05 to 2023-24):
    Year   Sales  Production  Employment
0   2005    2291        2056        1.01
1   2006    2511        2345        1.03
2   2007    2995        2800        1.08
3   2008    3532        3376        1.15
4   2009    4087        3950        1.19
5   2010    5067        4412        1.24
6   2011    7361        6502        1.42
7   2012    8557        7788        1.48
8   2013   10064        8938        1.56
9   2014   13154       11109        1.63
10  2015   17912       14374        1.66
11  2016   20383       17255        1.67
12  2017   24743       20985        1.72
13  2018   29027       23761        1.72
14  2019   30721       25300        1.74
15  2020   32019       26184        1.75
16  2021   36687       30919        1.74
17  2022   44561       37492        1.80
18  2023  113000       85000        1.84
19  2024  155673      108298        1.87

Overall Sales CAGR (2004-05 to 2023-24): 24.86%
CAGR for first 10 years (2004-05 to 2013-14): 21.43%
CAGR for last 10 years (2014-15 to 2023-24): 27.16%

Predicted Sales for 2025-2029:
2025: ₹80745.05 crore
2026: ₹85747.69 crore
2027: ₹90750.34 crore
2028: ₹95752.99 crore
2029: ₹100755.64 crore

Predicted CAGR for 2025-2029: -8.33%
```