Naiya Patel

MGT – 683

4/4/2024

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1. What would be the Annual total returns on cost of production for each product at Maximum price per unit?

import pandas as pd

# Load the Excel file

file\_path = file\_path = r'C:\Users\Naiya\Downloads\Price dataset.xlsx'

df = pd.read\_excel(file\_path)

# Calculate the annual total returns on cost of production at maximum price per unit for each product

df['Annual Total Returns ($)'] = (df['Current Maximum Price in online system ($)'] - df['Production Cost per unit ($)']) \* df['Quantity sold in 6 months'] \* 2

# Select relevant columns to display the result: SKU, Annual Total Returns

result = df[['SKU', 'Annual Total Returns ($)']]

result

SKUAnnual Total Returns ($)0XYZ22386465.801XYZ14514353.282XYZ27078631.363XYZ30792763.464XYZ359310655.585XYZ25663701.326XYZ31716236.287XYZ396912727.808XYZ12232892.009XYZ29855503.2010XYZ322519415.5211XYZ371211008.3212XYZ306052397.2813XYZ27859107.3414XYZ33829985.0415XYZ157834817.2816XYZ190527006.6817XYZ158329776.3218XYZ37056855.4219XYZ205918651.7620XYZ252316101.0421XYZ39727225.2222XYZ37377120.8223XYZ29759242.4824XYZ118613485.4225XYZ238031461.9226XYZ16796719.9627XYZ34484182.3628XYZ30922113.4429XYZ32476972.9430XYZ38341734.78

1. How would the total fees charged by online platform change with the new recommendations?

import pandas as pd

# Load the dataset

file\_path = r'C:\Users\Naiya\Downloads\Price dataset.xlsx'

df = pd.read\_excel(file\_path)

# Check if 'Current Fees ($)' exists in the DataFrame

if 'Current Fees ($)' not in df.columns:

print("Column 'Current Fees ($)' does not exist in the DataFrame. Here are the actual columns:")

print(df.columns)

else:

# Assuming a hypothetical 10% increase in fees as per the new recommendation

percentage\_increase = 10

# Calculate the New Fees based on the percentage increase

df['New Fees ($)'] = df['Current Fees ($)'] \* (1 + percentage\_increase / 100)

# Calculate the change in fees

df['Fee Change ($)'] = df['New Fees ($)'] - df['Current Fees ($)']

# Sum up the total change in fees

total\_fee\_change = df['Fee Change ($)'].sum()

# Print the total change in fees charged by the online platform

print(f"Total change in fees charged by the online platform: ${total\_fee\_change}")

result

Column 'Current Fees ($)' does not exist in the DataFrame. Here are the actual columns:

Index(['SKU', 'Quantity sold in 6 months', 'Production Cost per unit ($)',

'Actual Shipping per unit (average $)',

'Current Avg. Price per Unit (6 month estimate, $)',

'Current Maximum Price in online system ($)',

'Estimated shipping charged to consumer per unit ($)',

'Weight per unit (lbs)'],

dtype='object')