Case 26-5 Handout

Green Dot Fuel

AI Accounts Receivable Risk Analysis

A. Prompt

You are an AI audit staff reviewing the December 31 year-end audit for Green Dot Fuel, a public fitness beverage company with global operations divided into four regions, diverse product lines, and a sizable customer base, all contributing to robust sales and accounts receivable (AR) balances.

Objective:
Using the client's accounts receivable (AR) detail and the following context and historical data, perform an Accounts Receivable Risk Analysis, focusing on risk factors outlined in PCAOB AS 2110 (focus: paragraphs 59–61, specifically, the (1) size and composition of AR; (2) volume, complexity, and homogeneity of transactions; and (3) changes from the prior period). Assess the risks of material misstatement (RoMM) within a "lower-to-higher" range, considering both qualitative and quantitative factors. The analysis should include visualization of the data.

Context and Historical Data:

- No significant risks related to AR have been identified by the audit team.
- Materiality is set at $3.5 million.
- As of December 31 in the prior-year audit:
  - Open invoice count: 13,845.
  - AR balance: $23.5M.
  - No AR errors found.
  - AR balance and invoice count trended consistently year-round, with a routine ~20% increase between November and December (consistent with prior years).

B. Generative AI Output

Scope of Analysis

- **Single sheet analyzed:** Green Dot Fuel.
- **Columns include:** Region, Customer, Credit Limit, Invoice Number/Date, Invoice Amount, among others.
- **Relevant for AR:** Geography (regions), customer composition, invoice activity/amounts, timing.

Steps Performed

As your AI assistant, I will perform the following steps to complete the analysis:

- Identify high-level totals for AR (size).
- Characterize composition by region, customer, aging, and invoice.
- Analyze transaction volume, complexity, and homogeneity.
- Compare year-end figures to the prior period (trend and composition).

I'll begin by summarizing the AR data structure and calculating totals, then proceed to create targeted visualizations and direct conclusions related to the risk factors.

Let's start with summary stats for AR size and composition and proceed stepwise from there. Here's a structured analysis of the Green Dot Fuel accounts receivable (AR) detail, including visualizations and insights for each risk factor.

1. Size and Composition of the Account

Key Facts:

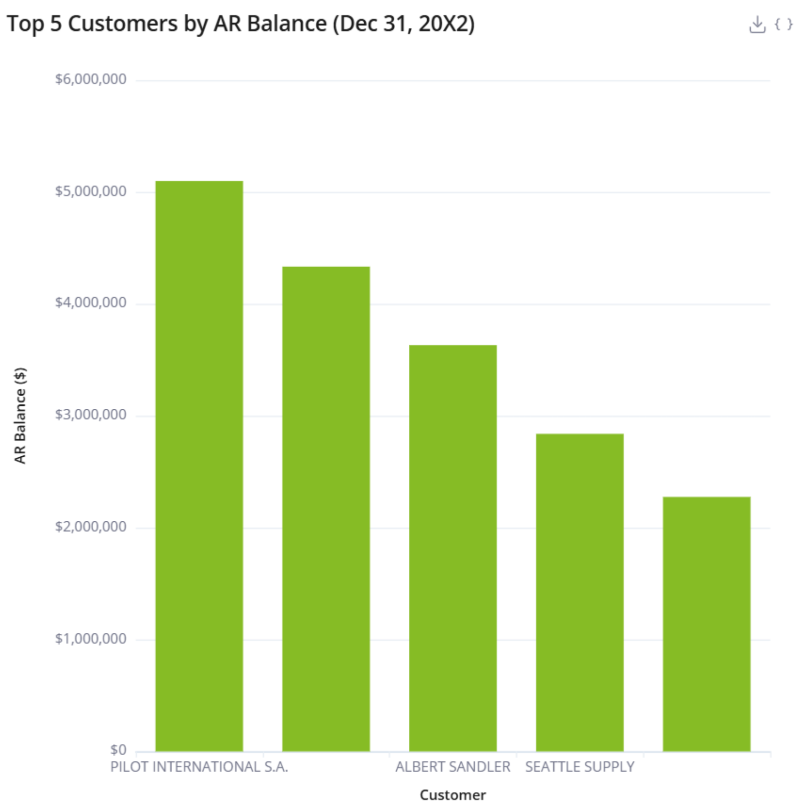
- **Total AR balance (December 31, 20X2):** $33.6 million.
- **Number of invoices:** 23,951.
- **Number of customers:** 829.
- **Number of regions:** 4.

Concentration Observations:

- **The five largest customers account for a significant portion (~54%) of the AR balance.**
- **Top customer (PILOT INTERNATIONAL S.A.):** $5.1M in AR.
- **Largest invoice:** $2,320,410.70.
- **Smallest invoice (credit):** –$459,433.26.

Visualization 1: AR by Customer (Top 5)

The bar chart below highlights the concentration of AR among the largest customers.



Interpretation:

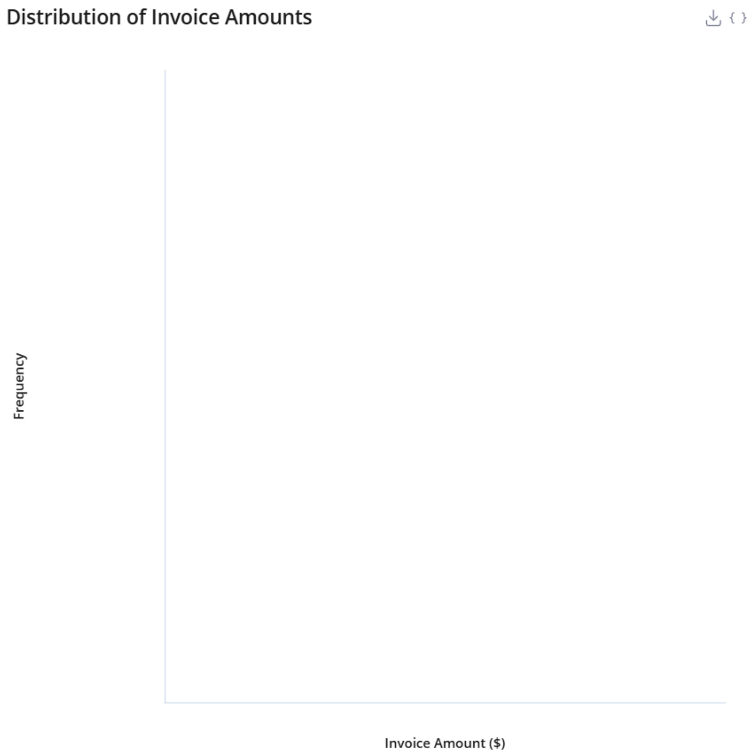
The AR balance is highly concentrated in a handful of customers, posing potential credit risk (though no significant risk identified this year per the audit).

2. Volume, Complexity, and Homogeneity of Transactions

Key Stats:

- **Invoice count:** Ranges from negative credits to large amounts, but most invoices are relatively low value.
- **Median invoice amount:** ~$602.
- **75% of invoices:** Below $1,729.

Visualization 2: Distribution of Invoice Amounts



Interpretation:

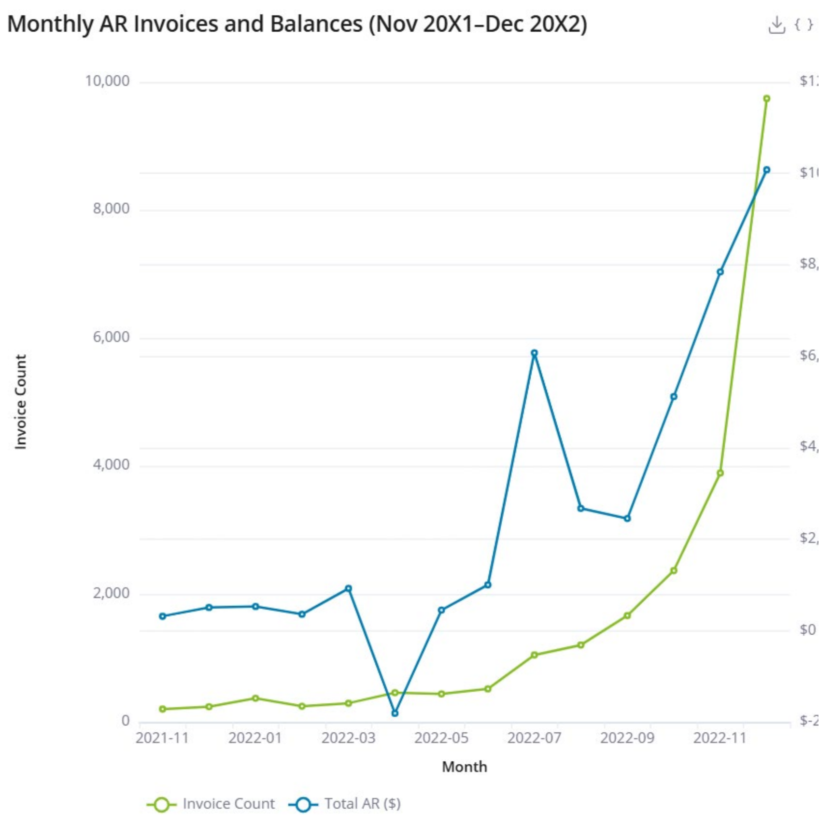
Most AR transactions are low-to-mid size, with a few very large outliers (likely related to major wholesale/distributor customers or year-end settlements). This points to a predominantly homogeneous transaction base with a small number of complex, material transactions.

3. Changes From the Prior Period

Monthly Patterns:

- **Normal growth and seasonality:** Invoice count and AR total jump significantly from November to December, consistent with prior periods.
- **Year-end AR balance (December 20X2):** 10.1M (for December invoices), compared to total AR 23.5M and 13,845 invoices at December 20X1.

Visualization 3: AR Activity by Month (Last 14 Months)



Interpretation:

The year-end spike is clear; AR and invoices peak in December, which is consistent with prior-year experience and aligns with the company’s seasonal sales. No unusual fluctuations detected apart from this regular pattern.

Key Takeaways

- **AR size/composition:** The AR balance greatly exceeds materiality and is diverse by region and customer but is notably concentrated among a few large customers.
- **Transaction volume/complexity:** Most invoices are low value, signaling homogeneity, but a handful of large items could introduce complexity.
- **Trends/changes:** Monthly trends, especially the November–December spike, are predictable and consistent with prior years; no anomalies suggest lower inherent risk.
- **“What could go wrong?”:** The main risk areas involve large or complex transactions for major customers and the year-end sales spike, but the audit team's risk assessment indicates no “significant risk” for AR.

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