**BUSINESS PROBLEM:**

In order to effectively produce quality decisions in the modern credit card industry, knowledge

must be gained through effective data analysis and modeling. Through the use of dynamic datadriven

decision-making tools and procedures, information can be gathered to successfully evaluate

all aspects of credit card operations. PSPD Bank has banking operations in more than 50 countries

across the globe. Mr. Jim Watson, CEO, wants to evaluate areas of bankruptcy, fraud, and

collections, respond to customer requests for help with proactive offers and service.

DATA AVAILABLE -

This book has the following sheets:

**Customer Acquisition**: At the time of card issuing, company maintains the details of customers.

**Spend (Transaction data)**: Credit card spend for each customer

**Repayment**: Credit card Payment done by customer

Following are some of Mr. Watson’s questions to a Consultant (like you) to understand the

customers spend & repayment behavior.

1. In the above dataset,

a. In case age is less than 18, replace it with mean of age values.

b. In case spend amount is more than the limit, replace it with 50% of that customer’s limit.

(customer’s limit provided in acquisition table is the per transaction limit on his card)

c. Incase the repayment amount is more than the limit, replace the repayment with the

limit.

2. From the above dataset create the following summaries:

a. How many distinct customers exist?

b. How many distinct categories exist?

c. What is the average monthly spend by customers?

d. What is the average monthly repayment by customers?

e. If the monthly rate of interest is 2.9%, what is the profit for the bank for each month?

(Profit is defined as interest earned on Monthly Profit. Monthly Profit = Monthly repayment

– Monthly spend. Interest is earned only on positive profits and not on negative amounts)

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f. What are the top 5 product types?

g. Which city is having maximum spend?

h. Which age group is spending more money?

i. Who are the top 10 customers in terms of repayment?

3. Calculate the city wise spend on each product on yearly basis. Also include a graphical

representation for the same.

4. Create graphs for

a. Monthly comparison of total spends, city wise

b. Comparison of yearly spend on air tickets

c. Comparison of monthly spend for each product (look for any seasonality

that exists in terms of spend)