SAKILA COMPANY DATA DRIVEN INSIGHT REPORT

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COMPANY OVERVIEW

Sakila is a DVD rental company. It generates revenue by renting movies to its customers. At the moment, there are only 2 stores available. Sakila has more than 500 active customers and is currently looking forward to expand its business on a higher level based on Data-driven strategies.

GOAL OF THE REPORT

The goal of the report is to provide meaningful insight based on the available data within the company. From there, strategic data-driven decision could be taken to upscale the business.

RESULT

FINANCE

Finance is what defines success within a company. A finance report could determine whether a company's doing the right thing or not. In this section, a clear insight of the company's revenue will be presented

Revenue	Year
66902.33	2005
514.18	2006

Table 1 Revenue Over Years

Over the 2 years, more than €67,000 of revenue was generated. Highest revenue was in 2005, with month-by-month revenue for the same year as follows:

Revenue	Month
4824.43	May
9631.88	June
28373.89	July
24072.13	August

Table 2 2005 Monthly Revenue

Currently, Store number 1 tops our total number of rentals.

Total rentals	Store Number	Store Address
8040	1	47 MySakila Drive
8004	2	28 MySQL Boulevard

Table 3 Total Rentals by Store

Interestingly, while store number 2 are lower in terms of total rental, the revenue generated is actually higher than store number 1.

Revenue	Store Number	Store Address
33524.62	1	47 MySakila Drive
33881.94	2	28 MySQL Boulevard

Table 4 Total Revenue by Store

CUSTOMERS

A good company is a company that has customers, while a great company is a company that has loyal customers. In this section, a brief insight will be presented in order to understand our customer better.

Total Customers	Activity
584	Active
15	Non-Active

Table 5 Total Customers by Activity

We have almost 600 total customers over time, with more than 95% of them still active. Last purchase was in 2006, and on average, a customer makes a total of over 700 purchases and over €3000 spending. Here are our top 5 customers with the highest number of Total Purchase:

Customer Number	Customer Name	Last Purchase	Total Purchase	Total Spending
148	ELEANOR HUNT	8/23/2005	2116	9960.84
526	KARL SEAL	8/23/2005	2025	9969.75
144	CLARA SHAW	8/23/2005	1764	8214.36
236	MARCIA DEAN	2/14/2006	1764	7374.36
75	TAMMY SANDERS	2/14/2006	1681	6379.19

Table 6 Top 5 Customer with the highest Number of Total Purchases

As of today, our customer has been with us for around 15 years and with Asia as our biggest market. Here are the top 10 countries with the highest number of customers.

Country	Total Customer	Total Revenue Generated
India	60	6630.27
China	53	5802.73
United States	36	4110.32
Japan	31	3471.74
Mexico	30	3307.04
Russian Federation	28	3045.87
Brazil	28	3200.52
Philippines	20	2381.32
Turkey	15	1662.12
Indonesia	14	1510.33

Table 7 Top 10 Countries

BUSINESS PROCESS

As a DVD rental company, we have to keep our product relevant to the market. The idea is to evaluate which movies are the most attractive for our customers, and which movies are the least attractive for our customers. Here are the top 10 films that is rented the most:

Film Title	Film Category	Times Rented
bucket brotherhood	Travel	34
rocketeer mother	Foreign	33
scalawag duck	Music	32
ridgemont submarine	New	32
juggler hardly	Animation	32
grit clockwork	Games	32
forward temple	Games	32
zorro ark	Comedy	31
wife turn	Documentary	31
timberland sky	Classics	31

Table 8 Top 10 Movies

Interestingly, while not making it to the top ten list above, “Sports” is actually the highest film category by the number of rents.

Category	Times Rented
Sports	1179
Animation	1166
Action	1112
Sci-Fi	1101
Family	1096

Table 9 Top 5 Categories

Our Data also shows us that there are 164 movies which only has been rented below 50% of the average (in average, movies are rented 16 times). Of these 164 movies, 42 movies are never rented at all. Here are the top 5 categories with the highest number of Movies below the 50% average rent.

Category	Number of Movies below 50% Average
Foreign	18
New	16
Documentary	15
Travel	12
Horror	12

Table 10 Least 5 Categories

EMPLOYEES

We only have 2 staffs, each of staff acting as a store manager in our 2 stores. As 3 out of top 5 of our total customers are located within the Asian countries, it might be a good idea to open a store based in an Asian country.

Store Number	In Store Manager	Store Address	Country
1	Mike Hillyer	47 MySakila Drive	Canada
2	Jon Stephens	28 MySQL Boulevard	Australia

Table 11 Employee & Store Details

CONCLUSION

- Over the 2 years from 2005 to 2006, Sakila generated more than €67000 revenue
- Sakila has over 550 active customers, with Asia as its biggest market
- Movies that are underperform must be evaluated, and removed from our product if necessary
- Upscaling our operations to Asian countries might be a good idea

APPENDIX

Appendix lists all the queries that is used for the analysis. Please note that not all query results are added to the report, some of them are done for analysis purpose instead.

- Company Revenue by Year

  ```
  SELECT printf("%.2f", SUM(amount)) as Revenue, strftime('%Y', payment_date) as Year
  FROM payment
  GROUP BY 2;
  ```

- Company Revenue Monthly in 2005

  ```
  SELECT Revenue, case when Month = '05' then 'May'
  when Month = '06' then 'June'
  when Month = '07' then 'July'
  else 'August' end as Month
  FROM
     (SELECT printf("%.2f", SUM(amount)) as Revenue, strftime('%Y', payment_date) as
  Year, strftime('%m', payment_date) as Month
     FROM payment
     GROUP BY 3
     HAVING Year = '2005');
  ```

- No of Rentals in each Store

  ```
  SELECT count(rental_id) as Total_Rentals, store_id as Store_Number, a.address as
  Store_Address
  FROM rental r
     INNER JOIN store s ON r.staff_id = s.manager_staff_id
     INNER JOIN address a ON s.address_id = a.address_id
  GROUP BY 2;
  ```

- Revenue by store

  ```
  SELECT printf("%.2f", SUM(amount)) as Revenue, store_id as Store_Number, a.address
  as Store_Address
  FROM rental r
      INNER JOIN store s ON r.staff_id = s.manager_staff_id
      INNER JOIN address a ON s.address_id = a.address_id
      INNER JOIN payment p ON r.rental_id = p.rental_id
  GROUP BY 2;
  ```

- Total Customers

  ```
  SELECT Total_Customer, case when Activity = 1 then 'Active'
  else 'Non-Active' end as Activity
  FROM
      (SELECT COUNT(customer_id) as Total_Customer, active as Activity
      FROM customer
      GROUP BY 2
      ORDER BY 2 DESC);
  ```

- RFM

  ```
  SELECT customer_id,first_name || ' ' || last_name as Customer_Name,
  strftime('%Y-%m-%d', max(rental_date)) as Last_Purchase,
          count(r.rental_id) as Total_Purchases, printf("%.2f", sum(amount)) as
  Total_Spending
  FROM rental r
      INNER JOIN payment p ON r.customer_id = p.customer_id
      INNER JOIN customer c ON p.customer_id = c.customer_id
  GROUP BY 1
  ORDER BY 4 DESC
  LIMIT 5;
  ```

- Customer that only rents in 2005 but not in 2006

  ```
  SELECT distinct r.customer_id,first_name || ' ' || last_name as Customer_Name,
  strftime('%Y', rental_date) as year
  FROM rental r
     INNER JOIN payment p ON r.customer_id = p.customer_id
     INNER JOIN customer c ON p.customer_id = c.customer_id
  WHERE year = '2005'
  EXCEPT
  SELECT distinct r.customer_id,first_name || ' ' || last_name as Customer_Name,
  strftime('%Y', rental_date) as year
  FROM rental r
     INNER JOIN payment p ON r.customer_id = p.customer_id
     INNER JOIN customer c ON p.customer_id = c.customer_id
  WHERE year = '2006';
  ```

- Average Purchase and spending per customer

  ```
  SELECT avg(Total_Purchases), avg(Average_Spending)
  FROM
     (SELECT r.customer_id, count(r.rental_id) as Total_Purchases, printf("%.2f",
  sum(amount)) as Average_Spending
     FROM rental r
        INNER JOIN payment p ON r.customer_id = p.customer_id
     GROUP BY 1);
  ```

- Customer Tenure

  ```
  SELECT customer_id, last_update - max(rental_date)
  FROM rental
  GROUP BY 1;
  ```

- Customer per Country and Sales per country

```
SELECT country, count(distinct cu.customer_id) as Total_Customer, printf("%.2f", sum(amount)) as Total_Revenue
FROM customer cu
    INNER JOIN address a ON cu.address_id = a.address_id
    INNER JOIN city ci ON a.city_id = ci.city_id
    INNER JOIN country co ON ci.country_id = co.country_id
    INNER JOIN payment p ON cu.customer_id = p.customer_id
GROUP BY 1
ORDER BY 2 DESC
LIMIT 10;
```

- Most Rented Films

```
SELECT f.film_id as Film_Number, lower(title) as Film_Title, c.name as Film_Category, count(r.rental_id) as Times_rented
FROM rental r
    INNER JOIN inventory i ON r.inventory_id = i.inventory_id
    INNER JOIN film f ON i.film_id = f.film_id
    INNER JOIN film_category fc ON f.film_id = fc.film_id
    INNER JOIN category c ON fc.category_id = c.category_id
GROUP BY 1
ORDER BY 4 DESC
LIMIT 10;
```

- Least Rented Categories (50% below average rent)

```
SELECT  name as Category, count(name) as Number_of_Movies_Below_50percentAverage
FROM
    (SELECT count(r.rental_id) as Total_rent, f.film_id, title, length, c.name
        FROM film f
            LEFT JOIN inventory i ON f.film_id = i.film_id
            LEFT JOIN rental r ON i.inventory_id = r.inventory_id
```

```
        LEFT JOIN film_category fc ON f.film_id = fc.film_id
        LEFT JOIN category c ON fc.category_id = c.category_id
    GROUP BY 2
    HAVING count(r.rental_id) < (SELECT 0.5*avg(Total_rent) FROM (SELECT
count(r.rental_id) as Total_rent, f.film_id, title, length, c.name
        FROM film f
          LEFT JOIN inventory i ON f.film_id = i.film_id
          LEFT JOIN rental r ON i.inventory_id = r.inventory_id
          LEFT JOIN film_category fc ON f.film_id = fc.film_id
          LEFT JOIN category c ON fc.category_id = c.category_id
        GROUP BY 2))
    ORDER BY 1,5 ASC)
GROUP BY 1
ORDER BY 2 DESC
LIMIT 5;
```

- Most Rented Category

```
SELECT  c.name as Film_Category, count(r.rental_id) as Times_rented
FROM rental r
  INNER JOIN inventory i ON r.inventory_id = i.inventory_id
  INNER JOIN film f ON i.film_id = f.film_id
  INNER JOIN film_category fc ON f.film_id = fc.film_id
  INNER JOIN category c ON fc.category_id = c.category_id
GROUP BY 1
ORDER BY 2 DESC
LIMIT 5;
```

- Employee & Store Details

  SELECT distinct store_id as Store_Number, st.first_name || ' ' || st.last_name as In_Store_Manager, a.address as Store_Address, country

  FROM staff st

  INNER JOIN store s ON st.staff_id = s.manager_staff_id

  INNER JOIN address a ON s.address_id = a.address_id

  INNER JOIN city c ON a.city_id = c.city_id

  INNER JOIN country co ON c.country_id = co.country_id;