

MassageINC Analytics Report
Data Analyst: Ruby Smith
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Purpose: Exploratory Analysis for Small Business

The owner would like me to go through their business data and explore to see what I can find. They have a small business doing massage and are planning to move to a larger building and take on a couple more employees.

Key Tasks:

- Receive data from business and look up information about other massage businesses.
- Explore all data and see what trends I can find and possibly make a forecast analysis.
- Help come up with ideas to maximize profits and other areas in MassageINC.

Data:

Data collected from Owner:

13 Reports from June 01, 2021 - Jan 21, 2025

Data usable in verbal agreement between the owner and Ruby Smith.

- Will not share any private, business or client data but can use analysis and findings for personal growth and/or job related events.

Data Organization:

Data was received from MassageBook from which the owner runs MassageINC. Data began when the owner quit going home-to-home and opened their own storefront in June 2021 until present, January 2025. 13 .csv files containing wide data were sent over from MassageBook which include Sales by each employee, payment types, marketing fees, income by each employee, giftcards, clients, and appointments.

Data Bias:

There is some bias in the data. All MassageINC data was given directly from the business. There was a short-term employee that only lasted a couple of weeks that the owner doesn't care too much about their data. Some might be missing but I will clean and analyze. Out of 3 years 8 months of data, 3 weeks of one employee data should not cause a significant bias in sales or appointment findings. For client data, a significant number of clients do not include their address and some clients only communicate by phone OR email, not both. I will analyze what I can and try to communicate my analysis while keeping in mind the bias.

Data Integrity:

Data was imported correctly and all rows match original counts. Some data types need to be updated and cells need to be cleaned. All datasets have been set to private in the .csv file. (File name redacted for privacy).

Prepare Phase Conclusion and Insights:

The datasets from MassageINC will allow me to find trends in sales, income, and clientele. I have data for dates, times, customers, massage types, and costs to work with.

After looking over the data, I want to create a primary key for all clients to maintain privacy going forward. I want to remove duplicates in the data and concatenate certain columns while combining different tables to simplify data.

PROCESS

Tools Used for Analysis:

BigQuery- imported .csv from cloud to BigQuery to analyze data with SQL

Tableau- to create visualizations

GitHub- to store queries used in SQL

Google Sheets- to store tables, pivot tables, and charts created from SQL queries to use for visualizations

Google Slides- to create presentation on analysis findings

Google Doc- to store analysis documentation and report

Google Search- to help with query organization

Personal Notes

Changes made to Original Data:

- Remove duplicate client accounts, update any transactions with name changes, and remove columns in “client information” with insufficient data (No data or so little data that nothing can be concluded from it)
- Create uniqueID for clients to keep clients confidential and update in all created tables.
- Updated Birthdate column and created an “Age” column.
- Removed 589 rows of duplicated data in “Sales” and “Payments_Received”
- Simplified columns with similar “choices” (ex Zelle, Zelle Payment, Zelle from Sue)
- Split up Services in multiple columns to be able to create COUNT later.
- Remove “time” duplicates out of “services” on all sheets necessary.
- Fix any spelling or format errors found, trim spaces, and updated all previous column names.

https://docs.google.com/spreadsheets/d/1FL4WlqMmSN-y_Ak4q2hEgNEaXuWWXzV9NwIAq3V4M0w/edit?usp=sharing

Process Phase Conclusion and Insights:

I was able to get rid of duplicates in “sales” and “payments_received” but 589 rows were removed. In Sales, 25.4% of entries were removed. In Payments_Received, 23.9% of entries were removed. (I wanted to note this in case MassageBooks includes these figures in aggregated data). While cleaning data I was able to separate services out so each service can be looked at. After talking to the owner, I was able to create custom categories to organize services to better analyze next. I feel the process phase was successful—especially for a cleaned up list for clients.

ANALYSIS

SQL Queries used in Analysis for MassageINC:

https://docs.google.com/document/d/1I06juqJLO_dX0RVjYld4x7ii_b_ktNhnYJ-ydXyowel/edit?tab=t.xzuhegutndgp

Google Sheets Documents used in Analysis for MassageINC:

'MassageINC_Analysis_01222025'

https://docs.google.com/spreadsheets/d/1FL4WlqMmSN-y_Ak4q2hEgNEaXuWWXzV9NwIAq3V4M0w/edit?usp=sharing

Sheet 1: Clients

Sheet 2: Client_Sales_Data

Sheet 3: Aggregated_Data

Sheet 4: ClientAcct_NoAppt

Sheet 5: No_Recent_Appt

Sheet 6: ServiceData_Fiscally

Sheet 7: ServiceData_Aggregated

Sheet 8: SALES

Sheet 9: APPOINTMENTS

Sheet 10: CANCELLATIONS

Sheet 11: PAYMENT_METHODS

Sheet 12: INCOME

After cleaning the data, I began my analysis in the "Clients" sheet and started with geographical data. Clients come from a radius of 30 miles (about 45 min drive max). The most popular towns are closer to the business—Spring Grove, Fox Lake, Ingleside, McHenry, and Volo. Any clients not from the area I assume vacation here. I also looked at clients by their birthday and was able to create a graph showing distribution of clients by age. There are two age clusters that are between the ages of 31-46 and 53-62. The owner was interested in knowing the sources of her clients. Out of 538 client accounts, only 3 people filled in where they were introduced to MassageINC.

Next I compared all 538 client accounts against all appointments created. 137 people have created accounts but have not made a first appointment. I have generated a google sheets List, "ClientAcct_NoAppt", that contains all 137 potential clients and their contact information. Overall, about 75% of people that create an account with you follow through and book an appointment.

I generated a list of clients that have not been back recently titled 'No_Recent_Appt' which contains 178 clients that have not made an appointment in the last year (Since 2024-02-01). It contains the client, their last appointment, number of appointments, number of cancellations and their contact information. I looked up current client retention and new client retention (Based on Massage and Spa Clinics) and measured retention based on year. A good retention rate is between 60-80%. (Year 2024 might change later if new clients from 2024 rebook in 2025.) The 'returning client' retention rate has been improving since opening in 2021

but is currently not above 60%. 'First time client' retention rate has been great since opening. This past year, 2024, has been the lowest retention for clients as of yet. That being said, retention should increase as 2025 continues and new clients hopefully rebook soon. I would like to recalculate this later in 2025 for an updated retention rate. Employee A's retention rate should also go up some as well. To improve your retention rate, I suggest rebooking at time of appointment, client feedback for improvements, client loyalty programs or discounts, upselling and educating clients, and/or providing consistent, quality service. MassageINC began as an 'at-home' service until a permanent location was started. The business location has moved once, to a different town, 7 minutes away from the previous location. This could also be a reason for some natural retention loss.

I generated a list called 'client_sales_data' that contains the total sales generated, average sales generated, and number of appointments for each client. 183 clients out of 401 clients have only made 1 appointment. MassageINC has an overall retention rate of 54.36% which is good but would like to have a goal to increase to at least 60%. This list can be used to create a loyalty program or give discounts to clients that have a certain number in sales, average sales, or appointments.

After analyzing cancellations, I noticed whether the client cancels or therapist cancels—days most popular for cancellations are Wed-Fri with the least amount of cancellations being Sat-Sun.

Overall number of appointments is increasing each year, each month, and each weekday. In the beginning months of 2024, I noticed a small decrease in sales per number appointments compared to 2023. Overall average sales for 2024 dropped to \$101.53 from \$108.22 in 2023 (loss of \$4,769.97). There has been an increase in add-ons per appointment, tips are maintained, and services are maintained. I believe this decrease could be from less expensive add-ons being chosen over more expensive choices. Increasing prices in most popular add-ons, other services or marketing for more expensive services are a few possible choices in increasing average sales.

Every year MassageINC has been able to increase sales. By bringing on another therapist, the owner has been able to increase her sales by 31.43% for 2024. Even without another therapist, she was able to increase her sales by 8.79%. The business is bringing in a little over 100 new clients per year currently while constantly increasing new-client retention.

I have included a forecast for 2025 sales if day-to-day business follows along similarly to previous years.

SHARE

Google sheets used for visuals: 'MassageINC_Analysis_01222025',
https://docs.google.com/spreadsheets/d/1FL4WlqMmSN-y_Ak4q2hEgNEaXuWWXzV9NwIAq3V4M0w/edit?usp=sharing

Tableau Public Profile where visuals were created:
<https://public.tableau.com/app/profile/ruby.smith/vizzes>

Presentation created on Google slides for owner: 'MassageINC_Analysis_Presentation'
<https://docs.google.com/presentation/d/1K7p4lILb3MHQdjC5P10W-fP6S9JpOPOP46QMHXaKn1o/edit?usp=sharing>

ACT

I feel after analyzing the client and revenue data from MassageINC, I am able to see it start plateauing for a one-therapist business. The owner has been able to maximize their profits for themselves and will steadily bring in between 50-60k in sales per year while maintaining their current appointment count. This is a good indicator for any other therapist they bring into the business about how much they can increase sales per year. The owner is in the process of acquiring a larger business location that will allow them to have the space to increase production which in turn will increase revenue. After, working on client retention strategies will be an important factor going forward.

I have included a few different lists of clients that can help with many strategies for marketing or improving retention going forward.

Suggestions:

1. Keep running lists periodically of clients. It is important to know who is buying services, who isn't coming back, and who is interested.
2. Look into ways to improve client retention –customer service strategies or technical service strategies.
3. Periodically look at services provided and see if popularity is changing and make adjustments as needed.
4. Keep doing what you're doing! Clients like your business.