Title: Introduction to Daswani Tailors and Background of Interviewee

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Instructor: Dr. Mike Freiling, Dr. Daniel Sagalowicz

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Group 2 Members/Author(s): Guy Cutting, Vishaal Daswani, Laurence Keefe, Letsogile Mponwane

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ETM538 Final Project
Group members: Guy Cutting, Vishaal Daswani, Laurence Keefe, Letsogile Mponwane

Introduction to Daswani Tailors and Background of Interviewee

For over four decades Daswani Tailors has provided custom tailored clothing to their clients all over the United States, Canada, Europe, Australia, and Asia. Daswani Tailors is headquartered in Portland, Oregon with a workshop in Kowloon, Hong Kong and travelling associates located throughout the United States. The project sponsor is Ken Daswani, the owner and master tailor of Daswani Tailors.

From Mr. Daswani we learned about the history of the business, changes in the industry, and growth challenges. We interviewed him to get insight into the processes of this business and how he and his employees use their data. Daswani Tailors is like many small and medium-sized businesses – it is successful but faces challenges from technology and a rapidly changing industry. Mr. Daswani said "More and more people today would rather order from an application or have a monthly fashion package arrive at their door rather than the personal service we offer." This resonated with our group because it seems that Daswani Tailors could benefit from analytical techniques which would give insight into their business operations, let them get more useful information out the data they have, and improve their bottom line.

Current Procedures and Processes

Daswani Tailors uses Excel spreadsheets to track customer, sales, and employee information. Outlined below is each step that is taken throughout the ordering process and all the data that is included in the process. They create a profile for each client on their first visit and updates the data in the profile every time a client places a new order. These profiles are saved as contact cards in outlook/iCloud and on the original order form. Each customer profile includes the following information:

- Customer ID
- Customer Name, Address, Telephone Number, Email Address
- Over 30 custom customer body measurements (stored in the original order number)
- Body posture pictures to ensure proper fit (stored in the original order number)
- Most recent order number
- Profession (if applicable)
- General fashion information about customer and customer preferences (i.e. some clients only need custom shirts and slacks and others need suits)
- Sales Associate's Unique Identifier
- Final Clothing Measurements to ensure a proper fit in the future
- Customer notes

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All customer orders are first handwritten and then input into spreadsheets. The handwritten order form is scanned in or entered into an electronic copy and then sent to the shop in Hong Kong to start the tailoring process after the payment has been successfully processed. Each customer order includes the following information:

- Order number
- Customer Profile
- Item Codes
- Number of items purchased
- Price per item
- Sub total
- Sales Associate's Unique Identifier
- Additional notes

Daswani Tailors works with a variety of fabric vendors and has thousands fabric selections. The fabric selections include a few different categories including standard, seasonal, and limited release. Standard fabrics are usually in stock and have a shorter wait time till the client receives their clothing. Seasonal fabrics change as the seasons and styles change throughout the year. Limited release fabrics are usually released in limited batches that include hard to find patterns and are only available for a short period of time. Daswani Tailors uses physical fabric swatches to track what is available for purchase, vendors send updated swatch samples when new styles are release and inform Mr. Daswani when a fabric or style is no longer available.

Each sales entry is required to have the following information:

- Order Number
- Order Date
- Order Amount
- Count of each item ordered (i.e. custom suit, shirt, slacks)
- Sales Associate's Unique Identifier

Daswani Tailors has 14 traveling associates that live all over the United States and travel worldwide to provide clients with excellent customer service and quality products. Each associate travels with all available fabrics and new style guides. The spread sheet includes the following information about associates:

- Associate Name

- Unique Identifier (usually associate's initials i.e. Ken Daswani is KD)
- Location/Based out of city and state
- Sales Territory
- Sales YTD
- Commission Structure
- Additional Notes

Key Business Questions

Mr. Daswani's key questions are ones that you would expect: Which customers purchase most, and what are they buying? Which associates are most successful, and what items are they selling? What items are commonly sold together?

As with many small businesses, DT has some of this information already, but we wish to further develop their ability to get insight into their business. Profitable products and common items are something that a sales associate would probably keep track of informally in their head based on experience, but we wish to develop the process of understanding these key metrics and associations.

Proposed Data Extensions

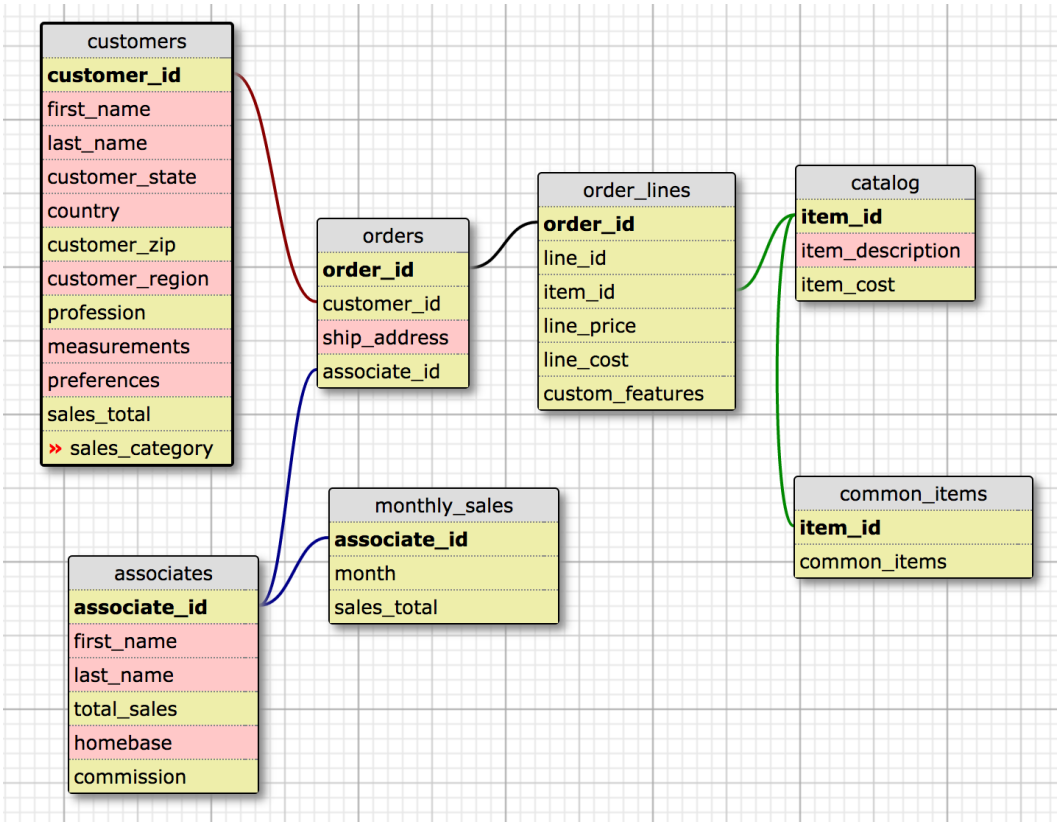
Like many small companies, DT still relies largely on familiar recordkeeping methods. They now use spreadsheets to track customers and sales, but this recordkeeping is still based largely on the paper forms that have been in use for decades. We propose to extend their Excel data format to make it more fully relational.

This scheme has several advantages over their current Excel record format. The catalog is implemented as a separate table, rather than a fixed list of items used as attributes in the sales data table (a column for number of shirts, one for number of pants, etc.). This makes it possible to more clearly define what items are available and specify what is actually being ordered. The logical structure of orders is also extended by creating a separate table for order_lines (similar to the format that was used for the Portland Knife Company data). This makes it possible to track order structure in more detail, and get overall totals, or totals by item, etc.

Separating entities logically and extending the data structure also makes it easier to derive further data. For example, now that orders are more clearly defined, it is much easier to extract secondary

information. We propose adding a monthly_sales_byassociate table which tracks monthly sales for each associate. This can be periodically calculated from the data in orders and order_lines.

Proposed updated data schema:



Proposed analysis

Our first suggestion is to use the 1R algorithm to predict sales based on other customer attributes. In order to do this, we need to bucketize customer sales totals (group them into discrete categories). Sales totals for each customer are calculated already. We propose bucketing as follows: low (<$2000), medium ($2000-5000), high ($5000-$10000), and very high ($10000+).

Once sales are bucketized into categories, we can use 1R to see which customer attributes best predict a high level of sales. This will allow Mr. Daswani and his sales associates to focus their marketing efforts, and to have an idea which types of customers are more likely to be major spenders.

We also propose a market basket analysis to see which items are commonly purchased together. This would also allow Mr. Daswani and his associates to focus their sales efforts – if they know which items customers usually purchase together, they can focus on other items which the customer is likely to buy with that purchase. Formalizing the data structure with the catalog as a separate entity makes this analysis easier. We can use Excel functions to identify, from the data in catalog and order lines, which are the most common associated items for each item in the catalog. This would help DT's associates to increase sales by understanding what their customers are likely to be willing to buy in association with other items, and also allow them to develop packages to compete with fashion delivery services.

We further propose to add another type of data – profitability by item. DT's existing sales data was not developed to easily see item sales totals. By making a separate catalog table, and including a cost attribute in order_lines, we make it possible to derive data on sales and profits by item. For each item, we can calculate the total sales (in units and in dollars), and the total profit (by subtracting item cost from price). This derived data is placed in a new table: item_profit_totals.

Finally, we can look at associate activity in more detail. Cofidying the logical relationships between orders and items, and adding an item cost attribute, not only allows us to see which items are the most profitable, but to analyze associate sales by profitability. We can calculate total profitability, by item, for each associate to see which associates are delivering the greatest profitability.

Summary

Daswani Tailors wishes to stay competitive in a quickly changing marketplace. They have a basic reckordkeeping and data structure in place, but they are not making full use of their ability to understand their own operations based on their data. We propose an easily manageable set of extensions to their current data structure that will allow much better understanding of their operations and how they can improve. We also present an analytical approach that will help them to understand their business in greater detail: predicting what types of customers will be the biggest purchasers, knowing which items are mostly likely to be sold together, and analyzing which items and which associates are the most profitable. These insights will help DT focus their sales and marketing efforts and eliminate unprofitable areas of the business.