



**Team: Flying Manatees**

**Business Analysis & Employee Promotion Report for Chinook  
Music Stores Inc.**

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## **Executive Summary**

The first task was to identify the employee eligible for promotion to manager position. 3 employees were in contention and performance of each employee was evaluated across 3 metrics Sales performance, tenure at the company and customer's relations score. A data driven decision was made to promote Jane Peacock to manager position as she outperformed the other 2 employees as each criteria were ranked as per the business objectives.

In order to increase profitability for the company and analyze customer behavior, frequency of repeat purchases was evaluated across the board for all customers, recommendation was to focus marketing and sales efforts on attracting customers that made repeat purchases after 201 days and also investigate if there are any controllable factors that can improve intervals in repeat purchases.

Lastly, few essential metrics were identified that can be helpful indicators in evaluating business performance. Artist popularity can be used to make sure the inventory always matches what the customers need and reflects the market trends in music industry, Genre popularity analysis also contributes to improving inventory at stores but also helps in identifying customer music consumption patterns. Average purchase value by customer indicates profitability that each customer brings and helps the firm tailor its marketing efforts in acquisition and or upselling or cross-selling customers.

As final evaluation, customers with multiple purchases were identified, specifically listing those that had high spending and were in 2nd, 3rd, 5th, 8th, and 12th rank in spending.

## **Employee Promotion Eligibility Analysis**

### ***Jane Peacock: The Right Candidate for the Job***

The selection of Jane Peacock was not done on mere impulse. Chinook's Sales Department had 3 Support Agents eligible for promotion, with each employee having worked over 20 years. Understandably, there are clear definitions established of what constitutes a strong candidate for management. Hence, utilizing data provided in the Chinook database several criteria's were utilized to evaluate performance of each employee.

The most important is Sales Performance and it is defined as Total Sales Contribution in revenue by employee, and weighed it at 60%; as a profit-driven business, moving product is essential to our operation and income stream. The Customer Relations Score (weighed at 20%) takes into account the volume of customers that the employee handles and also the profitability they extract from each customer. Finally, Tenure (also weighed at 20%) reflecting the employee's experience and commitment was also taken into account for final evaluation and grading. Weighing each criteria not only helps in evaluating as per the business objectives but also streamlines selection as it can facilitate ranking of each employee based on their scores for each criteria. Reviewing employee rankings by these metrics, Jane Peacock stood out. Her Total Sales were over \$833, the highest of the three. So too was her Customer Relations Score of nearly 60.67. Her Tenure also marked her as a lead contender, with 22 years of experience compared to 21 years for her competing coworkers. As Jane has excelled by these objective metrics, she has been proven to be strongest candidate for promotion to Sales Management.

## 2. Analysis of Repeat purchase frequency

### *Emerging Trends in Repeat Purchases- the Potential for Targeted Marketing*

Integrating SQL queries in Python, purchase interval bins were integrated in Python to analyze the purchasing patterns by visualizing them using the “matplotlib” library. Findings are that among frequent buyers, highest number of customers (over 160) revisit within 100 days, indicating a strong engagement with business. There were 2 other distinct customer groups with longer intervals between visits: those moderately frequent buyers returning within 200-300 days (100 individuals), and those infrequent customers returning in over 500 days (80 individuals). This information provides a unique targeted marketing opportunity to emphasize retaining frequent buyers and encourage upselling while and incentivizing less frequent customers. Moderately frequent buyers’ behavior could be further investigated to understand their purchasing behavior and create incentives based off such consistencies. Furthermore, targeted offers could reduce long gaps between purchases and bring more infrequent customers back. Finally, the lack of purchases in intermediate intervals (i.e. 100-200- & 300-500-day ranges) could be indicative of certain customer clustering in purchase time frames, or a potential data gap that warrants further exploration.

Customer spending rankings here were poignant as it was found some customers were particularly high purchasers by their total spending: Richard Cunningham and Louis Rojas were 2<sup>nd</sup> and 3<sup>rd</sup> ranked, respectively, in terms of purchases. Frank Ralston, Fynn Zimmerman, and Julia Barnett were tied for 5<sup>th</sup> place. Frantisek Wichterlova and Isabelle Mercier were tied for 8<sup>th</sup> place in purchases, while Camille Bernard and Joakim Johansson were tied for 12<sup>th</sup> place in the

same category. Harvesting the metadata from these customers (address, phone, email, and total amount spent), it can be used to establish different kinds of consumer archetype profiles for firm's customers, which could prove vital in future targeted marketing campaigns.

### **3. Identifying Key business metrics for evaluating business performance**

#### ***Establishing New KPIs***

During the course of research, 3 key performance indicator (KPIs) metrics were identified that could be applied to the Chinook database that could prove to be key indicators of business performance or improvement.

Artist Popularity is an indicator that could prove essential to store's business decisions going forward. The character or brand-recognition of a given artist(s)'s work will impact its appeal to different purchasing groups and even create trends that could prove viral or self-replicating; anecdotally, think of the popularity of Taylor Swift as such an example. In the case of the data analyzed, Iron Maiden was a clear sales leader with 140 sales made (exceeding the 2<sup>nd</sup> place U2 by over 30). While the overall creative output of artists was relevant, it was subject to diminishing returns. Iron Maiden had 230 albums vs. Metallica & Led Zeppelin each having 124, while U2 had just 150 albums placing and still underselling Iron Maiden by just 33 sales. In terms of sales by country, this provided a clear picture of where store revenue was coming from internationally, with North America being the origin of most sales (827.02 for US & Canada combined vs. 351.58 for France & Germany combined, & just 190.10 for Brazil). This

information allows the firm to better determine the allocation of resources like opening or closing additional stores, inventory management, and potential cultural trends of our products' brands. The problem with these metrics, however is their potential for biases- be it from socio-economic segmentation, customer preferences or the fluctuations of at times-erratic artist behavior.

Average Purchase Value allowed for identifying high value customers for potential loyalty programs; it also provided a context for purchasing patterns as opposed to a single purchase snapshot. That being said, this metric could prove biased by outlier purchases. As an example: Helena Holy was certainly our highest Average Purchase Value, but could this be due to particular deviations from her normal purchasing patterns?

Genre Popularity Analysis displayed a strong leader in overall sales: Rock, at over \$826, exceeded every other genre of product sold, with the nearest contender (Latin) behind by over \$444. This finding could prove profoundly versatile in inventory and developing marketing strategies. At the same time, one must keep in mind the possibility of skews due to recent trends that cannot account for sudden stark alterations in consumer perceptions; for example, Disco was popular in the 1970s, and then suddenly it was not (Samuelson, 2024).

