Bites & Brews: Brewing Smarter Decisions Through Data

*Ritika Jain and Megha Vinod Kumar Saritha prepared this case as part of their final project for the Data Management (DM) course at Ivey Business School. This case is intended solely for academic purposes to facilitate class discussion. The authors do not intend to depict either effective or ineffective handling of a managerial situation. Names, data, and other identifying details may have been disguised or altered to protect confidentiality.*

In early 2023, Annie Sharma, a recent MBA graduate from Toronto, launched Bites & Brews, a fusion café offering a mix of Indian, Canadian, English, and contemporary snack and beverage options. With an initial investment from her family and a bold vision for combining global flavors, Annie’s café quickly gained popularity among downtown professionals and students. However, by late 2023, Annie was overwhelmed by scattered Excel records, missed supplier restocks, and a lack of insight into customer behavior. She realized that in order to scale without compromising quality or customer experience, she needed a robust relational data system to centralize operations and streamline decision-making.

**THE FOOD & BEVERAGE INDUSTRY**

Canada’s café and snack industry has been growing steadily and is projected to reach CAD 8.3 billion by 2026, driven by evolving tastes, rising demand for specialty beverages, and culturally diverse offerings.[1] Small cafés, particularly those offering fusion cuisines and local experiences are carving out niches in urban markets like Toronto, Vancouver, and Montreal. However, these businesses often face challenges around inventory control, seasonal demand fluctuations, and customer retention. Unlike large chains, independent cafés rely on lean teams and frequently lack the technological infrastructure to gather, store, and analyze operational data in real time.

THE café: BITES & BREWS

Located in downtown London, Bites & Brews employs eight staff members and offers over 50 menu items, from masala chai and cinnamon rolls to fusion samosas and white-hot chocolate. The café sources its ingredients from more than 15 small-scale suppliers and offers both walk-in and online ordering options. Recently, Annie introduced a free membership program allowing customers to earn loyalty points and discounts. Despite its creative offerings and growing popularity, the café still operates with basic digital tools and fragmented spreadsheets, leading to operational delays, lost customer insights, and missed sales opportunities. Annie’s vision is to grow the brand across Ontario over the next two years, but she understands that achieving scale requires digital transformation, beginning with smarter data capture.

THE NEED, OPPORTUNITY, and related ISSUES

"I know we’re doing well, but I’m constantly reacting to problems. I want to start making proactive decisions," Annie shared during a strategy review meeting. Her need was clear: a relational database to streamline the management of inventory, customer orders, reviews, staff activities, payments, and memberships. The opportunity lays not just in storing data, but in extracting real-time insights - What are the top sellers? Which suppliers cause delays? Who are the loyal customers versus one-time buyers?

Currently, inventory is manually counted, and suppliers are contacted via email or text. Customer feedback is collected through paper surveys or Google Forms but not linked to specific orders. There is no automated referral tracking, making it difficult to measure the impact of memberships or discounts. If a customer used loyalty points or a referral discount, Annie had to manually update the sheet. This system was not scalable.

Recognizing these gaps, Annie and her team began mapping out the ideal digital solution, one that would not only streamline existing workflows but also lay the foundation for data-driven decision-making. The goal was to transition from scattered spreadsheets and manual updates to a unified system capable of capturing real-time operational insights. A well-designed data model would serve as the backbone for this transformation, helping Bites & Brews improve efficiency, enhance customer experience, and confidently scale operations.

THE DATA DETAILS

The proposed data model for Bites & Brews is designed to support streamlined operations across customer service, order processing, staff coordination, and inventory control. It envisions a centralized item catalog to capture all menu offerings, such as beverages, baked goods, and meals, along with relevant attributes like name, category, description, and pricing. This structured approach would ensure consistent and up-to-date menu information across both walk-in and online channels.

Under the proposed system, customers would be able to place orders consisting of one or more items. Each order would record key details including the date, total amount, and associated payment information such as method, status, and amount, ensuring comprehensive financial traceability. Orders would be processed by staff members, with staff profiles storing personal details, role, hire date, and contact information, enabling clearer oversight and accountability. Order composition would be tracked at the line-item level, logging the quantity and pricing of each item sold to allow for detailed sales insights and inventory forecasting. Customers could optionally join a membership program, with the system tracking loyalty points and program start date, laying the foundation for improved customer engagement and retention strategies.

In addition, the model would allow for post-purchase feedback by linking reviews to specific orders, complete with ratings and timestamps to support service quality analytics. Inventory would be managed separately, with each stock item linked to a supplier, enabling the café to monitor inventory levels, restocking cycles, and supplier reliability more effectively.

Importantly, the model is structured to differentiate between mandatory and optional relationships, for example, not all customers would be members or leave reviews, ensuring operational flexibility without introducing unnecessary complexity. Designed with scalability in mind, the proposed system aims to meet the café’s current needs while remaining adaptable to future growth, supporting Annie’s broader vision of expanding Bites & Brews across new locations.

With the new data system in place, Annie can finally manage growth instead of chasing after it. Real-time insights, automated recordkeeping, and integrated operations allow her to plan promotions, optimize staffing, and strengthen supplier relationships with greater confidence. What began as a solution to inefficiencies has evolved into a strategic asset, empowering proactive decision-making and long-term planning. As Annie prepares to open a second location next year, she knows her data foundation is not only scalable, but aligned with her broader vision of building a multi-location fusion café brand that’s both customer-focused and operationally sound.

REFERENCES

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**Exhibit 1** : Projected Business Impact of the Proposed Data Model.

A screenshot of a data model

AI-generated content may be incorrect.

**Exhibit 2** : Projected Monthly Revenue Growth

A graph with a blue line

AI-generated content may be incorrect.

**Exhibit 3** : Growth of Café and Snack Industry in Canada (2018–2024)

A graph with blue and green lines

AI-generated content may be incorrect.

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