**Business intelligence cheatsheet**

**Introduction**

You're a data analyst at Adventure Works and are about to present a Microsoft Power BI report to a team spanning different departments, including finance, marketing, and sales. You've got a ton of data to convey, and you want to speak the same language as everyone else in the room. But there's one small catch—your audience is as diverse as it gets. They are subject matter experts in their own domains. To make your presentation effective, you must speak their language clearly and convincingly and be prepared for them to throw a curveball term like Click-Through Rate your way!

This reading aims to assist you in understanding common terminology used in the world of business Intelligence and reporting. You can use this cheat sheet of business intelligence terminology to help you apply various terms accurately in your analyses and discussions, enhancing your ability to communicate effectively across different departments.

**Business intelligence cheatsheet**

Business Intelligence (BI) is a technology-driven process for analyzing data and turning it into actionable information that helps businesses make informed decisions. Let's explore some commonly used terms across different organizational departments, using the fictional company Adventure Works as an example.

**Finance report terms**

* **Gross profit:** Gross profit signifies a company's core profitability before overhead costs. It's a quick measure of production efficiency, product pricing, and handling costs. In the case of Adventure Works, you could calculate the gross profit by subtracting the cost of raw materials, labor, and factory overhead from the revenue. If the company negotiates better prices for its raw materials or improves its production efficiency leading to lower labor costs, the gross profit would increase, reflecting a positive financial outcome.
* **Operating expenses:** This category covers all the costs associated with the day-to-day operations of a company not directly tied to goods' production. It includes rent for the office spaces, salaries of non-production employees, insurance, utility costs, and equipment upkeep. Keeping track of operating expenses is critical for Adventure Works to identify areas to improve cost efficiency, thus boosting net income.
* **Net income:** Net income refers to the revenue left over after deducting all costs, taxes, and expenses related to the operation. It is a definitive indicator of a company's profitability. For example, a consistent increase in net income over time means that Adventure Works' operations are efficient and profitable. If net income is declining, it's a sign that the costs of Adventure Works are not well-aligned with its pricing strategies and operational efficiency.
* **Profit margin**: Profit margin, a key profitability metric for a company like Adventure Works, is calculated by subtracting the cost of goods sold from revenue and then dividing the result by the revenue. The profit margin is expressed as a percentage and indicates how much profit remains for each dollar of revenue after accounting for all costs. For Adventure Works, if the profit margin is increasing, it may suggest that they are managing their costs effectively and generating more profit per dollar of revenue.
* **Cost of Goods Sold (COGS)**: COGS refers to the direct costs of producing the goods a company sells. In the case of Adventure Works, this would include the cost of raw materials such as metal and composite materials used in the manufacturing of their bicycles, as well as direct labor costs involved in the production process. It would not include indirect expenses such as distribution and sales force costs. COGS is an important figure as it is subtracted from a company's revenue to determine its gross profit.

**Marketing report terms**

* **Click-Through Rate (CTR):** In the digital world, CTR serves as a key performance indicator for online ads and email campaigns. For Adventure Works, a high CTR in an online campaign for a new bicycle model could indicate that the ad is well-targeted and appealing to its audience. CTR provides a quick snapshot of an ad's performance and can guide the marketing team to adjust its strategies accordingly.
* **Customer Acquisition Cost (CAC):** CAC is the total cost of marketing and sales efforts to acquire a new customer. For Adventure Works, this includes the costs associated with marketing campaigns, offers, discounts, and sales team efforts divided by the number of customers acquired. Understanding the CAC can help companies allocate their marketing budgets efficiently and can be crucial in strategizing product pricing.
* **Customer Lifetime Value (CLV):** This predictive statistic represents the net profit a company expects to make over the entirety of its business relationship with a customer. It considers not just a single purchase but a customer's overall engagement and purchasing pattern. For a company like Adventure Works, with a wide range of products and accessories, calculating the CLV of different customer segments can help strategize its product development and marketing efforts.

**Sales report terms**

* **Sales revenue:** Sales revenue refers to the total income a company earns from selling its products and services. Adventure Works needs to track sales revenue regularly, as a decrease in sales revenue may indicate that the company needs to adjust its production, marketing, or customer relations strategies.
* **Sales growth:** This metric measures the rate at which sales revenue increases or decreases for a company's products over a certain period. It's crucial in understanding market trends, gauging customer demand, and making strategic decisions. For example, if Adventure Works observes a consistent increase in sales growth for its mountain bikes, it may decide to allocate more resources to marketing and enhancing this product line.
* **Conversion rate**: Conversion rate is the ratio of the total number of conversions (completed sales) to the total number of potential leads or site visitors. A high conversion rate for Adventure Works would imply that their marketing and sales strategies are effective in converting potential customers to actual ones. If the conversion rate is low, Adventure Works may need to analyze its sales funnel and customer journey to identify areas of improvement.

**Human Resources report terms**

* **Employee turnover rate:** This refers to the percentage of employees that leave a company during a certain period that a company needs to replace. This metric is crucial in understanding the effectiveness of HR policies and overall employee satisfaction. For example, a high turnover rate at Adventure Works could indicate employee engagement, workplace culture, compensation, or job fit issues.
* **Cost per hire:** Cost per hire is the average amount a company spends on recruiting a new employee, including advertising costs, recruitment agencies, HR personnel, interviews, and training. By understanding this metric, Adventure Works can optimize its recruitment process to hire talent efficiently.
* **Employee engagement:** This measures the level of an employee's commitment to a company, their enthusiasm for their work, and their willingness to take actions that will further the company's interests. A high level of employee engagement can lead to better productivity, improved work quality, and a positive workplace culture. Adventure Works could measure this by conducting regular employee surveys and feedback sessions.

**Conclusion**

With this BI cheat sheet, you can familiarize yourself with essential terminology that will aid your understanding of the data and metrics fundamental to your analyses. Knowing these BI terms can also enable smoother collaboration with stakeholders across departments and help you communicate insights more effectively, enhancing business decision-making.

**Feedback**

Visualizing data is a powerful way to transform raw information into insights that drive business success. In business scenarios, data visualization aids in simplifying complex data sets, making it easier for stakeholders to understand key insights at a glance. Visualizations like bar charts, line graphs, and pie charts organize data into clear, digestible formats that highlight patterns, trends, and outliers effectively.

For instance, dashboards in Power BI can help track metrics such as sales performance over time or regional customer preferences, offering instant visibility into what’s working well and what might need adjustment. Visualizations provide clarity that enables businesses to make informed decisions more confidently and quickly. A well-structured chart or graph can reveal seasonal trends, identify dips in performance, or pinpoint areas where resources may be misallocated. By recognizing these patterns early on, businesses can adapt their strategies to respond to emerging challenges or capitalize on opportunities.

My experience with Power BI has shown me the impact of visualizing complex data through formats like heat maps and waterfall charts. These tools help in conveying nuanced insights, such as the relative contributions of different factors to overall profitability, in a way that is both intuitive and informative. Overall, this ability to present data visually is invaluable for driving data-backed decisions and fostering a culture of informed strategy in any business environment.

**Tips by professionals**

When creating reports for different users, consider the following types:

Executive Reports: High-level dashboards with KPIs and strategic metrics.

Management Reports: Operational performance reports tracking departmental efficiency.

Sales Reports: Detailed transactional reports analyzing sales performance and customer behavior.

Financial Reports: Budgeting and forecasting reports for financial health tracking.

Marketing Reports: Campaign performance reports evaluating marketing effectiveness.