Framework for Customer Analysis

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Key Performance Indicators (KPIs) carry an aura of authority, and for good reasons. Like Peter Drucker said, "you can't manage what you don't measure."

One way to evaluate the relevance of a performance indicator is to use the SMART criteria. The letters are typically taken to stand for **Specific**, **Measurable**, **Attainable**, **Relevant**, **Time-bound**. In other words:

- Is your objective **Specific**?
- Can you **Measure** progress towards that goal?
- Is the goal realistically **Attainable**?
- How **Relevant** is the goal to your organization?
- What is the **Time-frame** for achieving this goal?

Combining domain knowledge with data creates key performance indicators (kPIs). A deep understanding of data warehouse architecture, the measures and dimensions helps business analyst to create these indicators.

To understand quickly, Measures are numerical values that mathematical functions work on. For example, a sales revenue column is a measure because you can find out a total or average the data. Dimensions are qualitative and do not total a sum. For example, sales region, employee, location, or date are dimensions.

Despite its importance, marketing is one of the least understood, least measurable functions at many companies. With sales force costs, it accounts for 10 percent or more of operating budgets at a wide range of public firms. Being able to “crunch the numbers” is vital to success in marketing.

Here is a framework for creating SMART KPIs for marketers, which can help them to make more powerful decisions.

Data Source: CRM, Demographics, Transactional, Promotional.

Using multiple measures rolled over dimensions creates KPIs. These are business entity driven by data. We will discuss 34 most important KPIs.

The list of dimensions from the Data Warehouse:

1. Customer
    - 1.1 Customer Characteristics (Demographic and psychographic characteristics)
2. Product
    - 2.1 Product type
    - 2.2 Product inventory
3. Region/Territory
    - 3.1 Subpart
    - 3.2 Destination Place
    - 3.3 Creation Place
    - 3.4 Mediator Place (if any)
4. Promotion/advertisement
    - 4.1 Promotion Type
    - 4.2 Lead
    - 4.3 Contact
    - 4.4 Opportunity
5. Expenses
    - 5.1 Expense Type
6. Weather (if it affects the business)
7. Occasion (optional)
8. Time
9. Offers
10. Transaction
11. Orders
12. Seller

The list of Measures from the Data Warehouse:

1. Price
2. Cost
3. Expense cost
4. Revenue
5. Churn rate
6. Profit
7. Life Time value:- Online marketing offers a unique opportunity for you to stay in front of your customer and encourage future purchases without being invasive. Use this formula to calculate the lifetime value of a customer:

    = (Average sale per customer)*(Average number of purchases a customer makes each year)*(Average time in months or years that a typical customer is retained)
8. No of Unique customers
9. No of orders
10. Average order value
11. Average transaction value
12. Average cost per order
13. No of transaction
14. Transaction per customer
15. Profit margin
16. Units per customer
17. Retention rate
18. Acquisition rate
19. Attrition rate
20. Profit margin
21. Revenue per sales rep: - measures the ability of each of your sales reps or sales teams to generate revenue for your organization.

Key Performance Indicators (KPIs)

1. Sales by territory.
2. Sell through percentage :-

   Sell through is the no of units sold divided by the beginning of month inventory

   $$= \frac{\text{Quantity sold for a time period}}{\text{Beginning of month inventory}}$$

3. Net present value (NPV) or net present worth (NPW): of a time series of cash flows, both incoming and outgoing, is defined as the sum of the present values (PVs) of the individual cash flows of the same entity. The difference between the present value of cash inflows and the present value of cash outflows. NPV is used in capital budgeting to analyze the profitability of an investment or project.

   $$PV = FV / (1+r) n$$

   Here

   - PV is Present Value
   - FV is Future Value
   - r is the interest rate (as a decimal, so 0.10, not 10%)
   - n is the number of years

   And NPV is the: amount

   a) Add the Present Values you receive and

   b) Subtract the Present Values you pay

   Example: You invest $500 now, and get back $570 next year (interest Rate is 10%)

   Money Out: $500 no……..

