# Customer Data Intelligence: Exposing Whitespace

#### By Zane Hall

It might surprise you how often senior management teams struggle to answer this (seemingly) simple question: what is a customer? I've seen leadership teams that didn't know if they had 10,000 customers or 100,000. This confusion doesn't happen because people lack understanding or experience. It's not a knowledge gap.

#### It's a data problem.

I've got good news for you: yes, there is such a thing as a simple answer to the question, a way to define customers (using data) that everyone can understand yet doesn't oversimplify the complexities of customer relationships. Here's it is: your customer is the highest-level parent of the company that you sell to.

For that definition to make sense, everyone at your company should understand two things: the meaning of "parent" customer and the meaning of "selling" to them. As an executive, you already know these terms, but I will connect them to your data strategy in a way that helps everyone in the company use those definitions in all their work. I call this solution Customer Data Intelligence (CDI). I'll explain it to you by showing you the structure of good customer master data, how to use it for market intelligence, and the business processes that make this data available for decisions.

That's the point of Customer Data Intelligence: without a master data plan, you don't understand your customers.

## How to Read

First, I'll explain the concept of "parent" customers. Parent customers shape the way you understand the companies you sell to and the market intelligence you collect on them. You'll need new business processes and new roles in your company to use this data, so I'll define them for you and then describe the best practices for IT and business teams who use and manage this information.

Then I'll show you how this information flows through the sales processes you already use. When master data flows into your transaction data properly, it exposes new insights that you can use for everyday decisions and strategic investments.

I've built a fictitious example using real companies, with products and relationships that anyone can understand. I'll explain CDI from the perspective of National Cash Register (NCR) and its customers to help illustrate the data management concepts. I'm also simplifying the products of NCR – they sell digital commerce solutions, but I'll just refer to their products as "cash registers" so you can easily visualize the examples.

### **Defining Parent Customer**

The term "parent" company means exactly what the name implies: a company that owns or controls another company. Parent companies usually own multiple subsidiaries, and (from the

data point of view) it's perfectly normal to describe subsidiaries as "children". When you sell to a customer that's owned by another company like this, you're also selling to the parent customer.

Let's say that you (NCR) sell cash registers to Whole Foods Market Emeryville, California Support Office (WFCA). This Whole Foods office represents 20 stores in the Bay Area and about 1,000 employees across those stores. Whole Foods (the parent company of WFCA) has six regional offices across the United States, and they own at least 9 other companies, like Fresh & Wild, Harry's Farmer's Market, and Mrs. Grooch's. Headquartered in Austin, Texas, Whole Foods is wholly owned by Amazon, headquartered in Seattle. Amazon (the "global" or ultimate parent company) owns at least 34 other subsidiary companies, like Amazon Web Services, MGM Holdings, and Ring.



Figure 1 Parent customer relationships.

All those complicated, layered relationships beg the question: who is your customer?

For a company like NCR, just *counting* the number of customers gets complicated. You currently sell to only the California Bay Area stores, but is that one customer or 20 customers? On the other hand, if you think in terms of your *potential* customers and not just those you currently do business with, the number gets much larger. Amazon (the largest retailer in the world) has 1.6M employees and more points of sale than you can count. Climbing up the family tree (instead of down) leads to a lot more family members.

But there's only one ultimate parent at the top of the tree: Amazon.

NCR serves all kinds of retail markets, not just grocery stores, so they could set their sights higher and call their customer Amazon. But their only existing business relationship is with the grocery stores, so viewing Whole Foods HQ as their customer makes more sense. They can always change this when they see an opening to sell to Amazon beyond just the grocery stores.

Your customer is the highest-level parent that you sell to.

This example illustrates my simple definition of "customer": your customer is the highest-level parent company that you sell to. That's the first step for using data to understand your customers: know their parents.

# **Describing Customers**

You learn a lot more about people when you meet their family. That's also true of your customers. Important facts, like where they grew up and the activities they enjoy, usually lead to more discoveries. Perhaps most importantly, you learn about all the other relationships they have, like their siblings and their extended family. "Customer Intelligence" means learning important facts about your customer and its parent, translating those facts into data, and using the data for decisions.

Common data points you might collect for your customers include employee count, headquarters location, industry, and market segment. I'll use these simple facts for my illustrations. Business teams already think about their customers in terms like these (and many more), and my only purpose here is to show you how to manage that data and connect it to decisions. A good data strategy captures this information and makes sure it's clean, reliable, and useful for all the people and systems at your company.

Here's my simple point: you should collect this same data for the parent companies of your customers. The characteristics of your parent customer are not the same as your local customers. Customer intelligence fills in critical whitespace by capturing the market characteristics of your customer's parent.

You'll probably recognize the obvious differences, like the number of employees or the headquarters location. If you sell products for the company's workforce itself (like employee communications software or HR systems), those employee counts directly quantify a potential market opportunity. In both examples, you collect the same *type* of information, but the *values* themselves reflect a greater scope of business. Other customer characteristics, like the type of business, might reveal untapped opportunities. Whole Foods operates

Customer intelligence fills in critical whitespace by capturing the market characteristics of your customer's parent.

grocery stores, but Amazon's retail business covers a lot more than that. Lots of them use cash registers.

#### Track competitive information with Global Parent customer records.

Example: Customers for National Cash Register (NCR).



Figure 2 Parent customer relationships fill in market intelligence whitespace.

### New Business Processes

If you've got a problem with your customer data, it's probably because you don't have a process to organize and manage this data. The problem isn't that you don't understand this information; instead, you're not connecting that knowledge to the data.

Getting to know your customer better involves three new business processes:

- Capturing market intelligence data (for both parent and child customers)
- Deduplicating customers
- Segmenting customers by service model

Here's a short description of each process.

#### Capturing Market Intelligence

Every company has some process to create new customers in their systems, but many companies never formalize the process for linking them to parents and collecting market intelligence data about both. That's the most common mistake companies make: they don't treat market intelligence data collection as a separate business process with a different owner.

The people who set up new customer records (usually operational staff) probably don't know anything about the parent customer. Sales analysts, on the other hand, usually track it somewhere already. I follow a simple rule for collecting data that you should apply here: the person (or department) with the knowledge should also maintain the data. If you make someone responsible for updating market intelligence data who can't also decide on the correct values, you won't get good data.

#### **Deduplicating Customers**

Most companies with a growing customer base eventually discover that they've got duplicate customers in their system; two or more customer records represent the same business entity.

That's usually a sign of a missing process to validate customers before they're set up in the systems.

I've seen extreme examples of this. One home improvement company created an incentive plan that rewarded sales people for finding new customers. They didn't have a way to validate the customers, however, so they just gave every sales representative access to create new customer ID records in the system. When a new customer finally placed an order, the company would discover lots of customer IDs for that address. Battles over commissions turned into chaos.

Treat market intelligence data collection as a separate business process.

That's a good example of why creating parent customer records is such a healthy business practice: it makes the process of learning your customer's true identity a regular practice. A new customer might really be only the new location of an existing customer. Maybe it's not a new location at all. Companies often think of "deduplicating" customers like this as a technical problem, but it usually just indicates missing business processes.

A simple test I use to detect a missing business process is to check how many "inactive" customer records exist in a company's database. That points to one of the most common data problems known to humanity: we're great at accumulating data, but terrible at purging it. Sometimes technical solutions really can help minimize duplication, and I've only shared the simplest example here. But in either case, you'll need a business process to go with it.

#### Segmenting Customers

Most companies organize their sales process and service models to cater to the most important customers. Some customers matter more to you than others, not only because of their current amount of business but also because of their potential. With CDI, you introduce a new process to assign a segment name to all customer records. I'll explain how your data platform applies this to all the data in the next section.

### **Best Practices**

How do you implement this "parent customer" feature in your systems? To start, use the standard features already built into your enterprise business systems.

Most large businesses platforms already make it possible using standard features. That includes ERP systems (like SAP and Oracle), Salesforce, and Model N (distribution management) platforms. But even with standard features like this, you'll still need to configure the customer relationships, and more importantly define the business processes to maintain them and translate them into the data you use for decisions.

Here are a few best practices to help you get this right:

Use the standard features already built into your enterprise business systems.

- Allow people to create parent records at the beginning of the sales process, not the end. A normal sales process often starts by selling to the parent company before you ship anything to their locations. Managing contracts and forecasting future products are good examples of business processes that use parent record data far in advance of any business transactions. But often, you'll find that the customer names used by these processes (like contracts) don't have any systematic connection to the parent names used in your enterprise platforms. This best practice allows people to create a new parent record for these uses, even without assigning any local (child) customers to it.
- Enforce a single system of record for key master data. Conflicting data between the systems you use for customer data can easily derail the entire strategy. A good data strategy declares a winner between systems where business people expect the data to match. But many companies fail to synchronize those systems in the first place. Synchronizing them isn't just technical, it's also business process analysis and getting agreements about who owns each field in the data and what good data should look like.
- Use your data platform to make the data visible and useful. Most people who use customer intelligence data for decisions rarely login to your enterprise platforms. Follow best practices by making this master data easily accessible in your data platform. But make sure the views and reports you create of this data come right from the source.

# What Is Your Relationship?

Understanding your customer isn't just about knowing who they are, it's also about knowing your relationship with them.

The idea of collecting information (intelligence) about your current and potential customers originated with Franklin D. Roosevelt's presidential campaign manager in the 1930s. Seventy years later, Salesforce capitalized on the idea by translating it to a cloud-based, software as a service (SaaS) application. It took a mere 20 years for Salesforce to become the largest enterprise software company in the world.

If you've followed my Customer Data Intelligence discussion so far, you've probably already used Customer Relationship Management (CRM) software for a long time. It's difficult to imagine any business today that doesn't already use some form of CRM in their sales processes and systems. But connecting the data you collect with those systems to the strategic business decisions of your company is another matter.

That's our focus here: understanding the data management practices that translate CRM information into the corporate decision processes.

# Aligning Service Models

You might wonder if the parent customer model I've described really applies to all customers. It does not. Parent customer relationships matter most for large customers. You naturally have fewer large customers, but you spend more time servicing them. That's the point of creating parent customer records: it helps you *segment* customers by size and by *service model*.

"Service model" describes how much time and effort your company plans to spend helping the customer.

The semiconductor industry (where I draw most of my experience) serves a huge and diverse customer base, making it a great example of the way segmenting customers works. A Parent customers help you segment customers by service model

medium sized semiconductor company might sell the same products to the largest companies in the world and to thousands of individual college students in India, all at the same time. Not all those customers require the same level of attention; the company helps Apple design their products into the latest iPhone, but the college students won't get any help at all. If you want to see the power of segmenting and servicing customers like this, look at how <u>Broadcom is using it to</u> conquer the Al hardware world today. That approach started with the data. I can't overstate the power of segmenting and servicing customers like this.

I've discovered that most companies, regardless of their industry, segment their customers into about three simple buckets: big customers, medium customers, and small customers. They use different names for the buckets, like "corporate, mid-size, and SMB", "partner, key, long-tail", or "whales, tunas, and anchovies", for example. I've seen this model in consumer goods, software, and subscription businesses too, leading me to guess that there's a simple limit (3) to the number of service models that help any company make the most of their resources.

Now let's tie this idea of segmenting customers back to our discussion about parent customer records. What kind of service do you want to provide Whole Foods Emeryville CA (from my earlier example)? Of course, you'll probably give them Amazon-level attention, even if you only sell to 20 stores. That's where it helps to identify customer segments at the highest-level relationship you've got with a company – the parent customer record.

# Analytic Questions

Those data management practices start by understanding the types of questions people use CRM data to answer. I've found three categories of questions:

- How significant is the customer in the market?
- How important is the customer to my company?
- How should my company sell to this customer?

You could summarize these into a single question, "What is our relationship with the customer?" A good data strategy should help your company use this CRM data to make better, faster decisions.

## **Two Perspectives**

Let's think about your company's relationship with its customers from two perspectives: service models and sales channels.

A **service model** is the framework that outlines how your company intends to *support* its customers. That covers all aspects of your business, not just a sales transaction but also the way you design and deliver your products and services. Broadcom (for example) partners with its largest customer (Apple) by understanding their future product plans and designing chips

specifically for those products. But college students are on their own; the only way they can buy a Broadcom chip is to find it in the catalog and purchase it online.

This example shows a basic list of service models that translates to most industries. Your company might call "service model" something different, like "customer segment" or "customer group". Instead of partner customers, standard customers, and catalog customers, maybe you segment customers some other way. But every organization benefits from segmenting their customers, and that should translate naturally into your data platform and decision processes.

Customer segments should translate naturally into your data platform and decision processes.

A **sales channel** is the specific way your company *transacts* business with its customers. This often relates to the sales system itself: if you sell to customers through your website, that's a sales channel. More broadly, however, your sales channel describes the flow of business transactions. For example, Broadcom might receive a sales order directly from Apple, making that a "direct" sales channel. But a small startup company in Europe purchases their standard chips through a third-party electronics distributor.

These relationships get a lot more complex in practice, but the example shows the simplest way to understand sales channels: they're direct and indirect. It also shows the fuzzy relationship between sales channels and service models: big customers get the most attention and the best deals.

I'm sure you can see how this translates to many industries:

- A film company might contract with theater chains and streaming platforms, but they might also sell direct to consumers on a pay-per-view basis.
- A clothing brand company sells direct to consumers through its retail stores, but it also sells to major retailers (like Target), to discount chains, and through its own website.
- A university collects tuition directly from students, but they might also collect income through Coursera (the world's largest online education platform).
- A SaaS software company might do deals directly with a large customer (like Coca-Cola), or they might sell through a partnership with Microsoft (like Teams applications).

Now let's turn to the data and compare sales channels to service models.

- Service models (how you operate) and sales channels (how you transact) both describe your relationship with your customer.
- A service model describes how you *intend* to support the customer, but the sales channel describes how you *execute* business deals.
- The data comes from entirely different places: *master data* shows your service model, while *transaction data* shows your sales channels.

### Takeaways

I've presented these two aspects of your customer relationships to make a simple point: the data you use for decisions should reflect the way the business works. A "service model" is master data –

a small set of customer characteristics that rarely change. The "sales channel", on the other hand, is a large set of activity data that flows through your business transactions.

Understanding this can help your data flow naturally to decision processes at your company, but only if you avoid these common mistakes: always use transaction data (not master data) to identify the sales channel. And always use master data (not transaction data) to identify the customer segments. When you understand how the business really works and you structure the data in your data platform to reflect that flow, it's a lot easier for people to use the data for

Use master data to assign service models. Use transaction data to analyze sales channels.

reflect that *flow*, it's a lot easier for people to use the data for decisions.

### **Mapping Transactions**

Here's another way to compare service models to sales channels: who makes the decision. You decide the service model for your customers, but your customers decide which sales channel they'll use to buy from you. You *influence* your customer's decision about how to buy from you, but you *own* the decision about how you'll service them. Your customer influences your decision about how you service them, but they decide the sales channel they'll use.

Can you read your customer's mind? No. The only way to get complete, accurate, reliable information about sales channels is to see where they purchased from you: the business transactions.

To show how those decisions translate into sales channel data, let's look at the structure of a purchase transaction. A purchase transaction might start as a sales *opportunity*, then become a sales *order* and finally result in an *invoice*. When your business systems do a good job connecting business processes together, all three transactions will show the same information, so I'll just use invoices as my example.

An invoice documents all the parties involved in the transaction. It identifies four types of customer information:

- 1. **Sold-to customer**. This is the customer location where the purchase decision is made. This is probably the location identified on the purchase order you receive from the customer.
- 2. **End-customer**. If you're selling through an indirect channel (like an electronics distributor), then the end-customer field identifies the customer will ultimately use the product. If you're selling directly to the end user, then the end customer and sold-to customers are identical.
- 3. **Bill-to customer**. Large customers often centralize their Accounts Payable teams, and that means the entity that pays you could be different than the customer you sell to. Most of the time, however, the bill-to customer is identical to the sold-to customer.
- 4. **Ship-to location**. This information helps when your customer uses your product as a component of their own product. In that situation, they might want you to ship the product to their assembly contractors.

Transaction data (like this invoice example) explains the relationship between your customers, and that's critical for understanding sales channels. In the simplest terms, sales channels are either

direct or indirect transactions between you and your customers. That relationship can change from one deal to the next; if the end customer on an invoice is different from the sold-to customer, then it's an indirect relationship with the end customer.

There are lots of other ways to add detail to this channel information. For example, the invoice might also indicate what system the customer's order came through – your website, an electronic data interface (EDI), or maybe even a phone call. When it comes to understanding your sales channels, more detail is always better, but it starts by getting the core customer relationships right in the customer fields.

Sales Order fields			Master data fields	5	Forecasts and most metrics
End Customer Whole Foods CA			Global End Parent Amazon		use Global End Parent.
Sold-to RDS West CA			Global Parent RDS	4	<b>Contracts</b> (pricing) and <b>AR</b> use the consolidated Global and Parent views
Bill-to RDS West CA					otobacand rarent views.
Metrics (\$000)	Old Navy	Best Buy	Amazon	Total	
Direct	25,000	0	25,000	50,000	
RDS	250,000	100,000	25,000	400,000	
Ingram Micro	2,500,000	100,000	25,000	2,625,000	_
Total	2,775,000	200,000	75,000		

**Use order data to track channel relationships** and standardize AR workflows. Example: Customers for National Cash Register (NCR).

#### Figure 3 Sales order fields create cross-channel visibility.

Let's link this transaction data back to the parent customer master data. In my example, NCR sells to Whole Foods Emeryville CA. But WFCA made the purchase through a distributor, Retail Data Systems West / CA. The parent company of WFCA is Amazon, and the parent company of the distributor is RDS. By linking the invoice data to the parent customer data, you suddenly have visibility into all sales to Amazon subsidiaries, across all sales channels. You also get visibility across all the sales channels, direct and indirect – all sales to RDS, globally, to all their end customers.

Just think about the power of this simple data architecture. Not only does it help you see the sales volume, but other simple metrics (like product margins) also benefit from this visibility. That's one of the most important sales management decisions for most companies: using sales channels to increase profit margins. More strategically (like my earlier Broadcom example), aligning service models with customer segments like this differentiates your company in the marketplace.

# **Customer Data Intelligence**

A good data solution reflects the way the business really works. Sales and marketing leaders already understand these relationships I've described, so that's not the problem. If they're not

getting value from your company's data solution, it's up to you to align the business processes, the systems, and the data.

If this data isn't connected to your decisions, it's a data problem.

Without Customer Data Intelligence, you're ignoring critical customer whitespace. You can't see sales channel opportunities, and your business processes that support these insights are manual, unstable, and disconnected. CDI closes these gaps by fixing parent customer data, exposing channel visibility, standardizing business and reporting processes, and improving data quality once and for all.

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