An Introduction to Multichannel Forensics

Analyzing how Customers Interact with Advertising, Products, Brands and Channels

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A Brief History of the Online Channel and E-Commerce

In the mid 1990s, businesses began to explore selling merchandise through a new medium, called the Internet. Electronic commerce was born. Business would never be conducted the same way again.

In the early years of e-commerce, sales grew at an exponential rate. Within three or four years of initiating sales via a website, sales within the online channel grew to a sizeable percentage of the overall business. Online pureplays like Amazon.com redefined how customers shopped merchandise ranging from books to electronics to apparel. By offering free shipping on purchases over twenty-five dollars, coupled with a recommendation engine that offered suggestions of interest to loyal customers, Amazon.com grew at a rapid rate, causing Executives across all retailers to consider how the online channel might be best leveraged.

The online channel also provided a fertile ground for understanding how customers interacted with brands. Web analytics offered tools like a funnel analysis, illustrating the percentage of customers who entered a website, looked at multiple pages, placed items in a shopping cart, and eventually purchased merchandise. Our eyes were opened to numerous instances where customers decided to discontinue their purchase process.

E-commerce, and its cousin, e-mail, gave us a veritable plethora of metrics to use in improving our online business initiatives. We dove into these metrics, learning as much as possible about how to encourage a customer to purchase merchandise *today*.

In a parallel universe, stakeholders in the old world of business, namely retail and direct mail, viewed the online channel with skepticism. Centuries of tried and true merchandising techniques, built largely on the gut feel and instinct of gifted business leaders, were coming under attack by a Darwinian style of evolution brought on by online marketing, driven by metrics that illustrated what worked, and what didn't work, nearly in real time.

In many cases, retailers and direct marketers jumped to the conclusion that the business driven by the online channel was not truly incremental business. Many leaders believed that the business generated in the online channel was simply cannibalized from existing retail and direct mail operations. By querying corporate databases, leaders learned that 'multichannel customers', those who shopped in the retail and online channel, or the 'catalog' and online channel, were more valuable than customers who shopped in just one single channel. Armed with this information, retail and catalog operations moved quickly to gain control over the online channel. Vendors developed solutions to facilitate an integrated shopping experience for customers who deal with multiple channels. By offering the same

creative treatment across advertising channels, by offering the same merchandise across purchase channels, and by offering the same pricing and incentives across channels, multichannel leaders hoped to please customers with a uniform experience, regardless where the customer chose to shop.

In recent years, the online channel has been pulled in several different directions.

Customers integrated e-commerce with search engines, giving themselves their own personalized shopping experience. A customer might visit a search engine, type in the phrase 'HDTV', and spend time researching these televisions across many different retailers. After determining the retailer with the best price, value and service options, a transaction was initiated, either online or in a retail store. Customers quickly created their own personalized multichannel experience.

As mentioned earlier, the online channel has been pulled into an 'integrated framework' within organizations that have existing catalog or retail channels. In some cases, the flexibility provided by the online channel has been compromised, in order to provide customers with a uniform shopping experience across all channels. For instance, merchandise that is not selling can be quickly discounted online. However, this process happens slower in the retail channel, and cannot be effectively managed in a rapid way in the catalog channel.

Finally, the online channel is being transformed by software that allows customers to interact with those who create content. Businesses are beginning to leverage blogs as a way to manage interactions with customers. Customers are using blogs and social media as a way to market their favorite brands, and call out sloppy execution perpetrated by other brands.

A Disconnect Between Strategy and Tactics

The evolution of the online channel has been fascinating to observe. An entire generation of direct marketers cultivated their skills using metrics created to manage this explosive channel. Today, we instinctively know that one in four customers open a marketing e-mail, that one in three of those who open the e-mail will click-through to our website, and that one in fifty of those who click-through to the website will purchase something. For every ten thousand e-mails we send, we know that seventeen customers will purchase something. We know what type of subject line works best. We measure the creative treatment that drives the most sales. We carefully manage our search programs, paying just enough for various keywords that drive traffic to our site. We carefully watch which website pages have good conversion rates, and which ones have poor rates. We track shopping cart abandonment with a passion, trying to never lose a sale.

These tactics help our businesses evolve in a Darwinian manner. We weed out the techniques that don't drive sales. We expand upon the techniques that work best.

On the other side of the spectrum, we have strategy. Business leaders are faced with having to grow sales across all channels. Frequently, leaders do not have all of the relevant and appropriate data to determine strategies. By default, they have to rely upon generic ideas, and research reports from external organizations. When a small number of organizations promote a common framework for managing multichannel businesses, a homogeneous and uniform direction can occur across our industry. In my opinion, this leaves us with reasonable, but not breakthrough strategies. Things like 'common merchandise across channels', 'uniform pricing and promotions', 'buy online and pickup in store', and 'same look and feel of advertising'. All of these strategies make intuitive sense. None of these strategies are revolutionary, or customized to the specific customers purchasing from your brand.

Somewhere between these high-level strategies, and a myriad of unique and compelling tactics, is an understanding of how customers interact with products, brands and channels. This is where 'Multichannel Forensics' come into play.

Multichannel Forensics: Analyzing how Customers Interact with Products, Brands and Channels

If we, as business leaders, had a better understanding of how our customers interacted with products, brand and channels, we could consider new strategies that are relevant to our multichannel customers.

For instance, Circuit City is well-known for their strategy of 'buy online, pickup in stores'. Somebody at Circuit City must have figured out that the lion's share of online customers were already retail customers. Once management understands a fact like this, strategy becomes easier, and creativity increases.

There are methods that can be applied to our multichannel environment, methods that help us understand how customers interact with products, brands, and channels. Combined, these methods are called 'Multichannel Forensics'. We will take a look at the individual analyses that make up 'Multichannel Forensics'.

For the purposes of this document, I would like to define a 'customer' as an individual or household who purchases from a product, channel or brand within the past twelve months. In other words, if a customer purchased in the catalog channel three years ago, and purchased online four months ago, the customer is considered to be an "online" customer. If a customer last purchased five years ago, and purchases something today, the customer is considered to be a "new customer". All companies define customers differently. For the purposes of Multichannel Forensics, a twelve month window of customer behavior is adequate for illustrative purposes. All of the concepts in this document expand to longer purchase windows, or shorter purchase windows.

Repurchase Modes

The majority of businesses have repurchase rates that can be measured on an annual basis. For instance, if one hundred customers purchased from Ann Taylor's website last year, and fifty-five of those customers purchased again this year, the annual repurchase rate is 55/100 = 55%. The annual repurchase rate can be categorized into three distinct modes.

Retention Mode = Annual Repurchase Rate Between 60% and 100%.

Hybrid Mode = Annual Repurchase Rate Between 40% and 60%.

Acquisition Mode = Annual Repurchase Rate Between 0% and 40%.

Identifying the mode your product, brand or channel (or any combination thereof) reside in is an important first step in understanding how to manage the business unit you lead.

Business units in *retention mode* tend to keep the majority of their customers, from year to year. These businesses grow by having customers who increase their annual purchase frequency, or increase the number of items they purchase per order. Wal-Mart is an example of a company that falls into this mode. Customers purchase from Wal-Mart stores on a frequent basis, with the majority purchasing both last year, and this year.

Business units in *hybrid mode* keep about half of their customers, from year to year. These businesses can be very enjoyable for leaders to manage. Growth can be driven by encouraging customers to increase their purchase frequency, or by increasing the number of items per order. In addition, customer acquisition plays a key role in these businesses. Growth can be accelerated by adding more new customers than in prior years.

Business units in *acquisition mode* keep less than forty percent of their customers, from year to year. These businesses have to have a singular focus on finding new customers to replace all of the customers they lose each year. For instance, when I worked at Eddie Bauer, our Home Catalog business had an annual repurchase rate of about thirty percent. This meant that, for every one hundred customers who purchased last year, we needed to find at least seventy new customers, in order to simply keep sales flat to the prior year. Granted, sales can increase by increasing purchase frequency, or by increasing the number of items per order. However, gains in these areas pale in comparison to the gains that happen by acquiring as many new customers as possible.

Migration Modes

Retention modes tell us how likely we are to hold on to our customers. Migration modes tell us how likely customers are to leave a product, brand or channel for another combination of business units.

The migration mode is determined by analyzing a 'repurchase index', calculated as the percentage of customers who purchase in a product, brand or channel (or any combination) divided by the percentage of customers in that product, brand or channel (or any combination) who purchased in total. Modes fall into four categories. Let's take a look at these.

Isolation Mode = A repurchase index between 0% and 20%.

Equilibrium Mode = A repurchase index between 20% and 50%.

Transfer Mode = A repurchase index greater than 50%.

Oscillation Mode = Two channels that transfer customers to each other.

These modes are very important to understand, because they determine the way your business is most likely to grow.

A business unit in *isolation mode* is in a favorable place, because its customers are not likely to cross-shop another product, brand or channel. This leader is able to craft strategies that directly result in the growth of her business. If you are a business leader, this is the most favorable mode to be in.

A business unit in *equilibrium mode* has customers that are likely to try other products, brands or channels. This is probably the most common mode for a business unit to be in.

A business unit in *transfer mode* has customers that are leaving your business unit to try other products, brands or channels. This is a tough business model for a leader to manage. Examples of this mode are rampant. In recent years, customers have transferred their CD purchases to MP3 purchases. Individuals transferred hours spent watching television to the internet. In the future, automobile buyers are likely to transfer their purchasing from combustion engines to hybrid engines, and eventually, to some other type of engine.

A business unit in *oscillation mode* has an unusual and uncommon dynamic. Customers transfer out of your business unit one year, only to return to your business unit the following year. Maybe a customer purchases a home theater receiver. In the next year, it is unlikely the customer will purchase another one. Instead, the customer purchases

other electronics, and then comes back in a year to purchase a new home theater receiver. This is oscillation.

The Twelve Modes Every Executive Needs To Understand

If we combine three repurchase modes with four migration modes, we identify twelve combinations that every executive needs to know.

For example, let's take a look at a sample business that has a catalog, online and retail channel. The next table, called a 'migration probability table', illustrates the repurchase indices for catalog, online and retail channels. The data in this table allow us to categorize catalog, online and retail channels into the appropriate repurchase mode and migration mode.

Migration Probability Table		Catalog	Website	Retail
This Year: 12 Month Buyers		39,261	8,361	13,315
This Year: New Buyers		27,444	4,480	4,167
Last Year's Corporate Repurchase Rate		50.6%	51.9%	48.8%
Repurchase Rate:	Catalog	29.5%	5.0%	3.0%
(Used to determine the	Website	16.2%	39.0%	10.0%
Repurchase Mode).	Retail	16.5%	19.9%	44.5%
Repurchase Index:	Catalog	58.4%	9.7%	6.2%
(Used to determine the	Website	32.1%	75.2%	20.5%
Migration Mode).	Retail	32.6%	38.3%	91.3%
Last Year:	Corporate Buyers	57,789		
	# Who Repurchase	28,532		
	Repurchase Rate	49.4%		

Let's start our analysis with the catalog channel. The repurchase rate for catalog customers buying in the catalog channel again is under forty percent, putting catalog in acquisition mode. Catalog repurchase indices for the online and retail channels are between twenty and fifty percent. Therefore, the catalog channel is in '*Acquisition / Equilibrium Mode*'.

The online channel has similar dynamics. The repurchase rate of thirty-eight percent places the online channel in acquisition mode. The repurchase index for the retail channel, at 38.3%, places the online channel in '*Acquisition / Equilibrium Mode*'.

The retail channel has different dynamics. A repurchase rate of 44.5%, coupled with no repurchase index above twenty percent, places the online channel in '*Hybrid / Isolation Mode*'.

Overall, the company repurchase rate is 49.4%, so the company is in '*Hybrid Mode*'.

These figures are placed into the 'Multichannel Forensics Matrix', featured next.

Multichannel Forensics Matrix

	Corporate Loyalty Mode	Isolation Mode	Equilibrium Mode	Transfer Mode	Oscillation Mode
Retention Mode (Annual Retention Rate of 60% to 100%)					
Hybrid Mode (Annual Retention Rate of 40% to 60%)	X	Retail Channel			
Acquisition Mode (Annual Retention Rate of 0% to 40%)			Catalog (Primary Source of Customer Acquisition) … Online Channel		

When there are multiple combinations of products, brands and channels, the Multichannel Forensics Matrix makes interpretation easier. In this case, we can see that the retail channel is basically out on its own, while the catalog and online channels serve a different purpose. The catalog channel feeds the online and retail channels. The online channel feeds the retail channel. The retail channel basically keeps customers.

The combination of Repurchase Mode and Migration Mode yield twelve distinct combinations. The combinations describe the purpose of any product, brand, channel, or combination. What do business leaders need to know about these combinations? Plenty! Let's review the nine most common combinations.

Retention / Isolation Mode: This is, without a doubt, a great business unit for a leader to manage. The leader retains her loyal customers. At the same time, her customers do not cross-shop other products, brands or channels. As a result, this leader has a significant amount of control over her business. In my opinion, these are great business units for new leaders to manage. Complexity is reduced when the leader has control over the business unit. One thing to keep in mind, however, is that any changes in the merchandise assortment could be met with resistance by these customers. They are loyal, and they specifically purchase from this business unit.

Retention / Equilibrium Mode: This is still a good business unit to manage. Customers are loyal, but they are willing to cross-shop other business units.

Retention / Transfer Mode: This combination is common in department stores, or websites with dozens of merchandise categorizations. For instance, a customer might be loyal to the automotive department at Wal-Mart. This same customer might be loyal to the Apparel department. These businesses become more of a challenge to manage, because each leader is essentially fighting for the customer's share of wallet.

Hybrid / Isolation Mode: In my opinion, this might be the most enjoyable business unit to manage. The leader introduces customer acquisition into the strategy, while trying to get her customers to purchase more often, and add more items to each purchase. Her customers are unlikely to shop other products, brands or channels. The leader can set the strategic direction of this business unit, and feel reasonably confident that few external factors will influence growth. Challenges can occur if other business units transfer customers to this business unit. If those business units are not meeting sales expectations, the Hybrid / Isolation business can suffer.

Hybrid / Equilibrium Mode: This mode is relatively common, and requires a collaborative leader. In this instance, the leader balances retention and acquisition activities, while at the same time facilitating cross-shopping behavior across the enterprise. The leader must be good at building relationships with other executives, and must have programs in place that facilitate cross-shopping. If the leader treats this business unit as if it were in isolation mode, growth can begin to slow.

Hybrid / Transfer Mode: Many business units that are in the early stages of a death spiral fall into this categorization. Think about the local record store that begins to lose customers to the iTunes store. This business leader is trapped. He must try hard to grow or maintain sales while cutting expenses. The harder he works at achieving corporate objectives, the harder his job gets. Business leaders in these business units need to sincerely consider their contribution to the organization, and make sure that poor business performance is not pinned on their abilities, but rather, the natural behaviors that customers are exhibiting.

Acquisition / Isolation Mode: Businesses in acquisition mode face a whole new set of challenges. Because these customers are not likely to repurchase in the next twelve months, the leader must constantly seek new customers. The combination of acquisition and isolation can be favorable for the business leader, but not favorable for the total business. The business leader benefits by focusing on a target customer who is solely interested in the merchandise offered by this product, brand or channel. However, the total business does not benefit, because these customers simply don't cross-shop. The customer buys something, then does not come back and repurchase from any product, brand or channel within the business.

Acquisition / Equilibrium Mode: This is a situation that is more favorable to the total business, because customers occasionally migrate to another product, brand or channel. Depending upon the business unit, migration may result in a customer landing in another product, brand or channel that has a better annual retention rate. That is why, long-term, Acquisition / Equilibrium can be better than Acquisition / Isolation.

Acquisition / Transfer Mode: Business units in this mode are like a minor league baseball team. It is the job of a business unit in Acquisition / Transfer mode to acquire a large number of customers who will probably migrate to another product, brand or channel. The leader of a business unit in Acquisition / Equilibrium or Acquisition / Transfer mode has a collaborative job, one that will most likely make another business leader look good. If the leader of an Acquisition / Transfer mode business does a great job of growing her business this year, another business unit will benefit next year. This requires collaborative business leaders, working together for what is best for the total company.

Business leaders need to understand which mode their individual business unit resides in. Leaders in Retention / Isolation mode have a tremendous amount of control over their business. In reality, these leaders have it easier, on a comparative basis, than all other leaders. Leaders in Hybrid / Equilibrium and Hybrid / Transfer mode may have a more difficult job than anybody else. These leaders have customers who are willing to cross-shop other products, brands or channels. Control over these business units is challenging, because it is likely that many different business units are interacting with each other. Success in one area spills over into another. Failure in one business unit spills over into another. Leaders in any of the Acquisition modes actually have more control than leaders in Hybrid mode, because so much of the success of Acquisition mode business leaders must be so focused on new customers.

I argue that Hybrid / Isolation mode is the most enjoyable mode for an executive to manage. To me, Retention / Isolation, and Acquisition / Isolation modes give leaders a lot of autonomy and control. Acquisition / Equilibrium, and Acquisition / Transfer modes can be great sources of customers for other products, brands and channels. Hybrid / Equilibrium, and Hybrid / Transfer modes are probably the most challenging for an executive to lead. These modes require leaders who are highly collaborative, willing to partner with other leaders for the overall success of the business. In my opinion, these business units require the most seasoned business leaders.

Mapping The Ecosystem

In reality, our multichannel businesses are ecosystems. Our customers interact with products, brands and channels, migrating from one to another. The success of the total business is dependent upon each business unit doing a great job playing its role within the ecosystem. An Acquisition / Transfer business unit must bring in a plethora of new customers, and then send those customers to other products, brands or channels.

Many business units are managed in a silo-based structure. The leader manages one product, brand or channel. The leader tries her hardest to grow her business. She has various sales and profitability objectives she is required to meet. Most of her activities must be focused on driving her business, regardless of what happens to the rest of the business.

A key aspect of Multichannel Forensics is the mapping of the ecosystem you work in. Each combination of products, brands and channels are mapped. Any relationships in

equilibrium or transfer are mapped with arrows, arrows that indicate the direction of the relationship. Let's take a look at the ecosystem for a website that sells trophies and other awards to businesses.
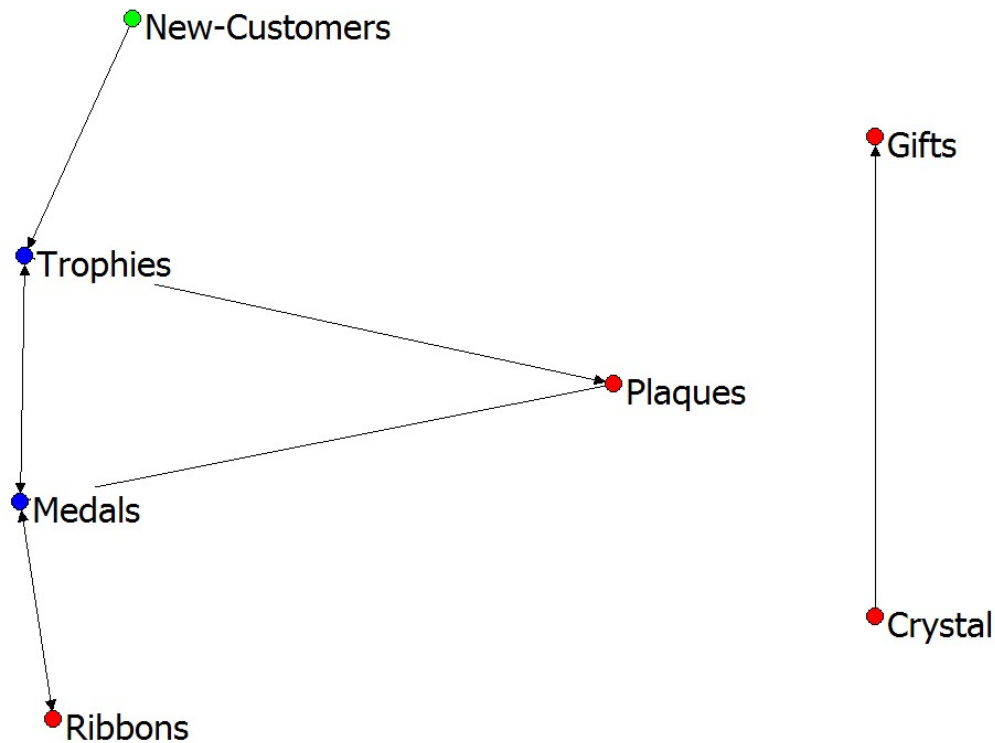
When the ecosystem is viewed as a map, the relationships are clear, and easy to understand. Let's look at what happens in this sample online business.

New customers are most likely to purchase trophies. From trophies, customers purchase plaques and medals. Medals are fed by ribbons, plaques and trophies. The success or failure of these merchandise divisions influences the performance of medals. If trophies, plaques or ribbons fail to inspire customers, sales of medals may suffer.

If you are the leader of the ribbons merchandise division, you have challenges. Your customers come via multiple steps. Your customers are often new customers purchasing trophies, followed by medals or plaques, then ribbons. Only when other executives do a good job can you expect your merchandise division to do well.

If you are the leader of plaques, your customers will come from trophies. Your job is to do good work, so that customers will be willing to purchase medals in the future.

Crystal and gift buyers are largely separated from the business. These merchandise divisions operate in a separate ecosystem. In many ways, the leaders of these two merchandise divisions can pursue their own strategies, so long as the strategies are consistent with the brand image leadership envisions. For the most part, customers are not likely to cross-shop out of crystal and gifts.

Forecasting The Ecosystem

Now that leaders understand the dynamics of the business, leaders must understand what they can do to make the ecosystem work well. A healthy ecosystem yields increased sales and profits.

Let's go back to our example of a catalog, online and retail channel. The following table illustrates how those three channels are likely to evolve over the next five years. By applying the migration patterns established in the migration probability table, we can forecast the evolution of this business. Let's take a look at the table.

Three-Way Multichannel Forensics Simulation

	Catalog	Website	Retail	Beginning Inventory	After One Year	After Two Years	After Three Years	After Four Years	After Five Years
Existing Buyers	Yes	Yes	Yes	273	636	778	863	841	895
	Yes	Yes	No	998	1,061	1,178	1,165	1,036	1,017
	Yes	No	Yes	497	1,007	1,133	1,115	986	972
	Yes	No	No	37,493	39,561	31,193	22,275	16,110	12,684
	No	Yes	Yes	1,107	3,860	5,145	6,045	6,154	6,699
	No	Yes	No	5,983	15,351	31,392	47,631	59,689	68,415
	No	No	Yes	11,438	12,356	28,314	24,445	41,544	38,627
Newbies	Yes	Yes	Yes		100	70	49	34	24
	Yes	Yes	No		100	70	49	34	24
	Yes	No	Yes		100	70	49	34	24
	Yes	No	No		30,000	21,000	14,000	10,000	8,000
	No	Yes	Yes		1,000	1,030	1,061	1,093	1,126
	No	Yes	No		10,000	22,000	33,000	40,000	45,000
	No	No	Yes		4,000	18,000	7,000	25,000	15,000
12 Month Buyers, Total			Catalog	39,261	42,265	34,282	25,418	18,973	15,567
			Website	8,361	20,908	38,493	55,704	67,721	77,026
			Retail	13,315	17,858	35,370	32,468	49,525	47,193
			Totals	57,789	73,832	99,133	103,540	126,360	129,309
12 Month Net Sales, Total			Catalog		$14,836,929	$12,411,403	$9,248,419	$6,859,803	$5,493,125
			Website		$6,282,025	$12,684,292	$19,297,880	$24,267,961	$27,901,441
			Retail		$5,461,623	$10,218,112	$10,844,021	$14,804,383	$15,436,737
			Totals		$26,580,577	$35,313,807	$39,390,320	$45,932,147	$48,831,304
12 Month Average Spend, Total			Catalog		$351	$362	$364	$362	$353
			Website		$300	$330	$346	$358	$362
			Retail		$306	$289	$334	$299	$327
			Totals		$360	$356	$380	$364	$378

As you can see, the catalog channel is expected to decline in sales, over time. However, the online channel is forecast to grow rapidly, while the retail channel is forecast to grow in large increments after year two, and after year four, as new stores are opened.

The beautiful thing about these "simulations" is that an executive can play "what if" scenarios. For instance, let's assume that, instead of acquiring 30,000 new catalog customers in the first year, let's instead acquire 60,000 new customers. What impact will this have on the total business, over the course of five years? In many ways, this is a question that all marketers need to understand. As our businesses evolve and change, we need to measure the impact of different marketing channels on the total business. Let's see what impact adding a plethora of new catalog customers has on the total business.

Three-Way Multichannel Forensics Simulation

	Catalog	Website	Retail	Beginning Inventory	After One Year	After Two Years	After Three Years	After Four Years	After Five Years
Existing Buyers	Yes	Yes	Yes	273	636	1,078	1,045	931	938
	Yes	Yes	No	998	1,061	1,778	1,438	1,145	1,062
	Yes	No	Yes	497	1,007	1,733	1,362	1,082	1,012
	Yes	No	No	37,493	69,561	38,693	24,266	16,672	12,857
	No	Yes	Yes	1,107	3,860	6,645	7,124	6,755	7,009
	No	Yes	No	5,983	15,351	33,642	49,463	60,781	68,997
	No	No	Yes	11,438	12,356	30,564	26,703	43,096	39,550
Newbies	Yes	Yes	Yes		100	70	49	34	24
	Yes	Yes	No		100	70	49	34	24
	Yes	No	Yes		100	70	49	34	24
	Yes	No	No		60,000	21,000	14,000	10,000	8,000
	No	Yes	Yes		1,000	1,030	1,061	1,093	1,126
	No	Yes	No		10,000	22,000	33,000	40,000	45,000
	No	No	Yes		4,000	18,000	7,000	25,000	15,000
12 Month Buyers, Total			Catalog	39,261	72,265	43,282	28,111	19,830	15,869
			Website	8,361	20,908	43,143	59,069	69,611	78,006
			Retail	13,315	17,858	40,020	36,233	51,863	48,510
			Totals	57,789	103,832	114,133	111,400	130,462	131,425
12 Month Net Sales, Total			Catalog		$24,286,929	$16,461,403	$10,421,944	$7,216,806	$5,611,705
			Website		$6,282,025	$13,629,292	$20,226,483	$24,832,349	$28,202,393
			Retail		$5,461,623	$11,380,612	$12,227,677	$15,726,752	$15,967,675
			Totals		$36,030,577	$41,471,307	$42,876,104	$47,775,907	$49,781,773
12 Month Average Spend, Total			Catalog		$336	$380	$371	$364	$354
			Website		$300	$316	$342	$357	$362
			Retail		$306	$284	$337	$303	$329
			Totals		$347	$363	$385	$366	$379

Notice how the evolution of the business changes. The catalog channel increases in volume from $14 million to $24 million in net sales. However, by the time five years go by, the catalog channel is virtually unchanged, in terms of net sales. In this case, you can prop up the catalog business in the short-term, but you cannot avoid the long-term fate of the channel. Of interest, however, is what happens to other channels. The catalog customers acquired in year one migrate through the ecosystem, adding a million dollars to the online channel in year two, and more than a million dollars to the retail channel in year two.

This is what multichannel forensics bring to the table. The executive can understand how customers interact with products, brands and channels. Once understood, the executive can run simulations that illustrate how the ecosystem will evolve if different strategies are tried.

Marketing costs can be easily added to the simulation of the ecosystem. This allows the executive to see the long-term changes in the ecosystem, as a result of changes in marketing expense. In reality, this is the best way that multichannel forensics can be applied.

Putting It All Together

Multichannel forensics allow the executive running a business with multiple products, brands or channels to understand the complex interactions that occur everyday within the executive's business. There are several elements of multichannel forensics that the executive must understand. They are:

Understand the Retention Mode your product, brand or channel resides in.

Understand the Migration Mode your product, brand or channel resides in.

Combine the Retention and Migration Mode, understand which of twelve retention/migration modes your business operates in. This determines the way you will grow your business, long-term.

Map the Ecosystem, so that the executive can clearly understand how all products, brands and channels interact with each other.

Forecast the Ecosystem. This allows the executive to understand the long-term health of the ecosystem, given various marketing initiatives.

Multichannel forensics are needed in this era of expanding products, brands, channels, and marketing strategies.

Want To Learn More About Conducting A Multichannel Forensics Project?

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Multichannel Forensics Dataset Extract Development

A Multichannel Forensics study seeks to understand the ways that customers interact with advertising, products, brands or channels. Armed with this information, long-term sales forecasts can be derived, forecasts that illustrate the growth potential of each product, brand or channel.

The most important element of any Multichannel Forensics study is an extract of information from a customer data warehouse. There are typically three different extracts that are needed for the analysis, though just one is essential. In each case, think about a spreadsheet, where each row represents information about a customer, each column describes something about the customer or transaction. Let's review the three dataset extracts that are typically needed.

All dataset extracts should be in fixed-width, text format, per the instructions below. The data can be sent on CDs, or I can send an external drive that can be used to load data on to. No personally identifiable data should be sent.

Extract #1 (Required): Purchase Transaction Dataset (At Least The Past Five Years Of Purchase History Are Preferred, Three Are Required At Minimum)

In this extract, each row represents the *item* a customer purchased (best case), or instead represents the *sum total of a customer's order*. Here are the data elements in the extract.

- Column #1 = A number that identifies each unique customer. For instance, all of Kevin Hillstrom's items purchased might be classified as customer number 01. Ms. Martha Smith might be classified as customer number 02, and so forth.
- Column #2 = The date a customer ordered merchandise (a value that looks something like 2007.04.08 or 2007-04-08).
- Column #3 = Order Number –– a unique identifier for this specific order a customer placed.
- Column #4 = The Brand/Title a customer ordered merchandise from. If the business has only one brand/title (i.e. Zappos.com), this column may not be needed. However, if this is a multi-title or multi-brand business (i.e. Macy's, Bloomingdales), this column is used to describe the brand/title the customer ordered from.
- Column #5 = The channel a customer ordered merchandise from (mail, telephone, internet, retail store).
- Column #6 = The payment method used for the purchase (proprietary credit, Visa, MasterCard, Discover, Amex, Cash, Check, etc).
- Column #7 = The sku/style number for the item purchased (optional field –– not needed if each row represents an order).
- Column #8 = The merchandise division/department for the item purchased (optional field –– not needed if each row represents an order). For instance, if a web-based business has Mens, Womens and Kids merchandise, this field is populated by the division (Mens, Womens, Kids) that the merchandise is classified by.

- Column #9 = The quantity of items purchased. If the customer purchased one of this item, the value = 1. If the customer purchased two of this item, the value = 2. If this field is at a order-level, this represents the sum of all items the customer purchased.
- Column #10 = The sum of the price of the item. If the customer purchased one item at $50, the value in this field is $50. If the customer purchased two items at $50, the value in this field is $100. If the data is pulled at an order-level, this represents the total dollar amount of the order.
- Column #11 = An indicator that tells whether this item was demand-only (meaning the item was not sent to the customer because it was sold out or cancelled), shipped, or returned.
- Column #12 = Source Code, or a unique identifier that tells the segment the customer belonged to when the customer was mailed (typically printed on the back of the catalog). In an online-only business, this probably won't be available –– though a referring URL may be available, and could be substituted for Source Code.

The majority of the Multichannel Forensics analysis can be conducted with this extract. Two additional extracts can be created to assist with additional questions.

Extract #2 (Optional): Source Of Acquisition Dataset (Entire History Of Business, If Possible)

In this extract, each row represents a unique customer. Each column describes important aspects about the first purchase a customer had.
- Column #1 = A number that identifies each unique customer. For instance, all of Kevin Hillstrom's items purchased might be classified as customer number 01. Ms. Martha Smith might be classified as customer number 02, and so forth.
- Column #2 = The date a customer ordered merchandise (a value that looks something like 2007.04.08 or 2007-04-08).
- Column #3 = Order Number –– a unique identifier for this specific order a customer placed.
- Column #4 = The Brand/Title a customer ordered merchandise from. If the business has only one brand/title (i.e. Zappos.com), this column may not be needed. However, if this is a multi-title or multi-brand business (i.e. Macy's, Bloomingdales), this column is used to describe the brand/title the customer ordered from.
- Column #5 = The channel a customer ordered merchandise from (mail, telephone, internet, retail store).
- Column #6 = Source of Acquisition. This may be from a rented list, from a catalog request, from an online source (Google, Affiliate, Portal, Banner Ad).

Extract #3 (Optional): Catalog Mailing History Dataset (Past Two Years)

In this extract, each row represents a unique customer. Each column describes important aspects about the first purchase a customer had.

- Column #1 = A number that identifies each unique customer. For instance, all of Kevin Hillstrom's items purchased might be classified as customer number 01. Ms. Martha Smith might be classified as customer number 02, and so forth.
- Column #2 = Brand/Title of the catalog mailed.
- Column #3 = Name Of Individual Catalog Drop (i.e. April 2007 Catalog).
- Column #4 = Date Catalog Was Mailed.

E-mail promotional history can be included in this file as well, if the business wishes to have this information analyzed.

File Information: Analysts performing a Multichannel Forensics analysis need to have the following fields, at minimum, in a dataset. In a perfect world, the dataset has one row per item purchased. At minimum, the dataset needs to have one row per order. Here are the fields the dataset should have, for a proper Multichannel Forensics analysis:

- Anonymous Key Identifying The Customer.
- Date of Purchase.
- Channel of Purchase (Catalog, Online, Retail).
- Source Code (if available) For That Purchase.
- Merchandise Division Identifier (i.e. Mens, Womens, Kids, HDTV, iPod, Printer, etc.)
- Quantity Of Items Purchased.
- Dollar Amount Of Items Purchased.

About Kevin Hillstrom: President, MineThatData

Kevin Hillstrom is a Database Marketing veteran who has helped develop actionable customer insights for businesses since the late 1980s.

As President of MineThatData, Kevin leads a consultancy focused on the emerging field of "Multichannel Forensics", the study of how customers interact with advertising, products, brands and channels. Kevin also helps businesses understand how to optimize their advertising spend across search, affiliates, portals, shopping comparison sites, e-mail, catalogs and direct mail. Kevin also provides Database Marketing audits and evaluations, benchmarking an organization's activities against industry best practices.

From January 2001 – March 2007, Kevin was Vice President of Database Marketing at Nordstrom, an $8 billion dollar multichannel shoe, apparel, accessories and cosmetics retailer. During Kevin's tenure as an Executive at Nordstrom, market capitalization increased from $2 billion to more than $12 billion. Kevin's first role at Nordstrom was at Nordstrom Direct, the catalog and online direct-to-consumer division of Nordstrom. In his time at Nordstrom Direct, he revamped the catalog contact strategy, customer retention mailing pattern, and customer acquisition program in an effort to improve the profitability of the division. In just two years, Nordstrom Direct went from a -10% pre-tax profit division to a profitable arm of the multichannel retailer. Kevin's next role at Nordstrom was to integrate all customer analytics departments, creating a team that focused on measuring the return on investment of customers across all channels. Kevin's team led a targeted e-mail program, catalog circulation and analysis, new store forecasting, customer reporting, sales forecasting, long-term sales planning, and ad-hoc customer research. Research conducted in Kevin's team led to the decision to discontinue a traditional catalog circulation and list strategy. Instead, Nordstrom went to an advertising-based catalog strategy that resulted in a dramatic reduction in catalog demand, but maintained rapid online growth, increased profitability, and put a firewall around customer privacy by not practicing traditional list and rental activities. Kevin's team also integrated online clickstream data with retail purchase behavior, providing insights into how a multichannel customer utilizes online media to facilitate retail purchases. Kevin's team identified the fact that multichannel customers visit the website "X" times a month, visit the store "Y" times a month, and purchase via online/stores "Z" times a month, changing the way Nordstrom viewed the strategic importance of its website.

From March 2000 – January 2001, Kevin was Sr. Consultant at Avenue A, an online advertising agency. Kevin developed products and services designed to help Fortune 500 companies understand how to execute profitable web advertising strategies.

From December 1995 – March 2000, Kevin was Director of Circulation at Eddie Bauer. Eddie Bauer posted $340 million in pre-tax profit during Kevin's tenure at the venerable multichannel retailer, including a record year for pre-tax profit in the direct-to-consumer channel during 1999. Kevin pioneered analytical techniques that allowed Eddie Bauer management to understand emerging trends in the relationship between catalog customer

behavior and online purchasing habits. By forecasting the trends in 1999, Kevin illustrated that the online channel would surpass the telephone channel in sales by 2003.

From November 1990 – November 1995, Kevin was Manager of Analytical Services at Lands' End, the venerable catalog marketer located in the rolling hills of Southwest Wisconsin. Kevin applied elements of experimental design to catalog sales analysis. By developing a 128 cell, one-year-long contact strategy test, Kevin was able to understand the incremental sales value of all unique catalog titles at Lands' End.

From July 1988 – October 1990, Kevin was a Statistical Analyst at the Garst Seed Company. In this position, Kevin learned the analytical techniques that would shape his work at Lands' End, Eddie Bauer and Nordstrom.

In May 1988, Kevin earned his Bachelor of Science in Statistics from the University of Wisconsin, Madison.

Kevin and his wife live in the suburban Seattle area, enjoying a moderate climate, breathtaking views, and outdoor activities.