The magic of business-to-business segmentation

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Abstract The aim of the *Journal of Database Marketing* is to publish papers of the highest quality with the aim of advancing knowledge and improving practice in the field of customer management strategy. There is more than one way to do this. In future, in addition to our more academic-based papers, we will, from time to time, be running pieces based on the direct experience of experts in the field. These will be practice papers, outlining techniques that these experts have used to generate quick wins in and around the field of customer management.

In this issue, Jim Laiderman looks at a trick he has practised many times over the years to achieve efficiencies in targeting and marketing in the business-to-business sector. It is a tactical approach that has immense payoffs in the strategic planning arena.

Here is an amazing trick the author learned as a young magician working for a large marketing information and consulting company. Like most magic tricks, it requires lots of practice, but once learned it will delight in how easy it is to perform. If presented well, the audience will not only be impressed, but also forever grateful. The author has performed this trick dozens of times in his career and helped companies achieve incredible efficiencies in how they target and market to businesses. To help in learning this trick, the process has been outlined into three areas: the magic effect, the secret or 'gimmick' and the author's personal suggested presentation techniques.

THE EFFECT

The effect of this trick is to take a business-to-business operational file and develop an effective marketing segmentation system that can be used as a framework to better identify best business segments, target new customers, identify new high-potential markets, allocate precious sales resources, develop channel strategies, determine efficient sales territories, set realistic quotas, forecast future sales by business segment and develop strategic goals for a company.

THE SECRET

The beauty of this magic trick is its simplicity because the magician requires

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only four pieces of information to effectively perform it. Three of the pieces of information must be acquired externally, so that, for each business in a customer file the following will be needed:

- a Standard Industrial Classification (SIC) code assignment. (SIC codes are a US government labelling system for business segments.)
- the number of employees or size classification for that business establishment
- the total number of business establishments by SIC code in the marketing universe
- and, acquired internally, how much each customer spends with the company each year (or some measure of value).

Naturally, this trick can be performed with NAICs (the update business classification system in the USA) if preferred (it works just as well).

Step one

First, SIC codes and employee size classifications must be matched and appended to the customer file. The author recommends contracting this process out. Most of the big business compilers will easily match a file to theirs and perform the cross-tabs required for this magic trick. The matching process is quite a magic feat by itself, as it involves standardising a customer file and then analysing the business names, addresses and phone numbers for possible matches. It is not a perfect science because many businesses have multiple names, addresses and telephone numbers. Matches are typically assigned scores based upon the likelihood of being correct and acceptable confidence levels. The final matched file may only

incorporate 40–60 per cent of the original customer file (but that is sufficient for the purpose of analysis).

Once a file of at least 3,000 records or more has been matched, one is ready to begin the process of segmentation. The author thinks 3,000 is a statistically good number since there are so many SIC codes. Unless one is dexterous in manipulating large files and creating cross-tabulations, the author also recommends contracting this next step out (to the same vendor who performed the match and append if possible).

Step two

Essentially, what one wants to do here is take the customer file and reduce it down to a smaller and more manageable number of segments. The process used is based upon the built-in hierarchical structure of SIC codes, which briefly can be explained as follows. Division codes are one-character classifications reflective of the economic activities of businesses within various economic sectors. The two-digit codes are subsectors or major groupings of industrial classifications. The three-digit codes are related industry groups and four-digit codes define a company's specific activity. The six-digit codes were created by various business information vendors to better explain detail in the marketplace (and also account for new business segments such as e-commerce). For example, B is the division code for mining, 10 is the two-digit code for metal mining, 101 for iron ores and 1011 for 'establishments primarily engaged in mining, beneficiating, or otherwise preparing iron ores and manganiferous ores valued chiefly for their iron content.'

At the six-digit level, there are over 1,600 SIC codes representing a wide range of business types. Clearly, SIC codes, in their raw form, do not

represent a small and manageable number of segments, and therein lies the first part of the secret in performing this magic trick. One begins at the six-digit level, counting up the number of customers that fall into each six-digit SIC code (frequency counts). Chances are, after counting, there will be a very small number of customers that fall into any given six-digit SIC code; nevertheless, this is where to begin. If it is found that 1 per cent of the customers fall into any one six-digit SIC code (a number considered significant, although somewhat arbitrary), then that six-digit SIC code is deemed a viable segment. If, however, the percentage of customers in a given six-digit SIC code is less than 1 per cent attention must be turned to the next level in the hierarchy for that SIC code, the four-digit code level. If, magically, the percentage of customers at the four-digit level is now 1 per cent or more, that four-digit SIC code is deemed a segment. However, if the percentage is still below 1 per cent, one must go to the three-digit SIC code level and repeat the process. This iterative process is continued all the way down to the two-digit SIC code level and then the major business division level if necessary.

Roughly 20 segments are wanted from this process, those that make up a large percentage of customers (most likely the proverbial 80 per cent). The number 20 is arbitrary and somewhat dependent upon how the file plays out (and also the desired number of segments, remembering that a small and manageable number is required). If there are not roughly 20 segments after performing this process, then the 1 per cent significance level can be raised up to a higher value, such as 2 per cent, and the iterative process started again from the beginning.

The more niche the product line, the more business segments there will be (and

more at the higher digit levels). The more generic the product appeal, the less business segments there will be (and more at the smaller digit levels). For example, a business that manufactures nuts and bolts will be likely to have many customers in many business segments. This would be a good magic trick for such a company. A business that manufactures aeroplane parts would probably have no need for such prestidigitation.

Before moving on to Step Three, the author must confess that he has simplified the process for the purpose of brevity. In reality, the above exercise should be done by employee size class within each SIC code (ie 1–10, 11–50, 51–250, 251–500, 501–1,000 and 1,000+ employees) because it is an important ‘firmographic’ that cannot be ignored. Clearly, a transportation company with one to ten employees demands a different strategy from a transportation company with 1,000+ employees. In other words, SIC codes alone will not effectively segment the market.

Step three

All right, sit back, relax, things are about to get interesting. The entire customer file is now nicely described by roughly 20 segments. The audience has just moved forward in their seats, to get a closer look at what is about to happen next. The next few steps should be performed slowly and gracefully (with practice). The sleight is very subtle but the effect on the audience will be tremendous.

From Table 1, column one contains the roughly 20 business segments plus an ‘all other’ category. Column two is a simple count by segment. Column three is the percentage of customers that fall into each segment. Column four is the number of businesses (potential customers) in each business segment in

Table 1: Profile table

Segment	Count	%	Universe	%	Penetration	Index
Seg1	1,624	5.53	7,459	2.90	0.22	191
Seg2	329	1.12	8,296	3.22	0.04	35
Seg3	1,234	4.20	10,832	4.21	0.11	100
Seg4	204	0.69	18,425	7.16	0.01	10
Seg5	478	1.63	13,736	5.34	0.03	30
:	:	:	:	:	:	:
Seg20	2,038	6.90	16,937	6.58	0.12	105
All other	:	:	:	:	:	:
Total	29,378	100.00	257,389	100.00	0.11	100

Note: Colons denote 'more of the same'.

the marketing universe. The marketing universe is defined as the market reached or 'served'. If a regional company serves a small region, then the marketing universe is that small region. For a national company, where every business in the nation is a potential customer, then the marketing universe is the nation. A popular way to calculate a marketing universe is to study the postcodes on the existing customer files and obtain a count by business segment for those postcodes that make up 90 per cent of the customers. Column five is the percentage of businesses in that segment in the marketing universe. Column six is a simple penetration rate. That is, the number of customers by segment divided by the number of businesses (potential customers) in the marketing universe (column two divided by column four). The higher the penetration rate, the better the job being done in attracting that particular segment. A penetration rate of 10 per cent tells states that one out of ten businesses in that segment in that marketplace is a customer. More importantly, it states how well a company has done with that segment. It also states how hard it will have to work to attract customers in a particular segment (or, alternatively, how 'easy' a segment is). Column seven is an index. Calculated using the percentage of

customers by segment divided by the percentage of businesses (potential customers) in the marketplace (x 100). An index of 100 means an average job is being done of attracting that segment (relative to all other segments in the marketplace). An index of 300 means a three times above-average job of attracting that segment. Indices help to compare performance and prioritise segments.

Now, internal sales figures are brought into the magic trick. In order to do this, some measure of value is needed such as total sales, purchases, lifetime value, or any other volumetric information kept about customers.

From Table 2, column one is the roughly 20 custom segments. Column two represents the total sales or value to the company from all the customers in that business segment. This is an important part of the magic, because a company may have a segment that it does well with (ie high penetration, high index) but the segment spends very little with it. Column three represents the average sales per business in that segment. Column four is a calculated measure of value based upon average sales per business in a segment and penetration. A company may have a segment that spends a great deal with it, but in the past it has had difficulty penetrating this segment. By combining

Table 2: Volumetric table

Segment	Total sales	Average sales	Value ranking	Gap
Seg1	\$16,325	\$10	15	\$58,655.40
Seg2	\$123,789	\$376	7	\$2,997,650.34
Seg3	\$56,979	\$46	9	\$443,180.26
Seg4	\$68,384	\$335	6	\$6,107,965.02
Seg5	\$329,678	\$690	3	\$9,144,081.43
:	:	:	:	:
Seg20	\$38,630	\$19	13	\$282,408.42
All other	:	:	:	:
Total	\$3,205,058	\$109	:	\$24,875,365.23

Note: Colons denote 'more of the same'.

the two measures, an overall value measurement is obtained. If desired, this may be indexed as well, to help to better quantify the comparison among segments. In this example, the segments are simply ranked. Column five is the gap or the difference between actual and potential sales. It represents the difference between what a company's currently selling to a business segment and the total sales potential in the marketplace it serves. The measure is calculated by multiplying the average sales per segment by the total number of businesses in the marketing universe and then subtracting the total sales currently realised by that business segment.

THE PRESENTATION

By now, one has now learned a stunning magic trick on how to manipulate a complex data set. Now comes the presentation, making the information actionable. There is a saying in magic: 'There are no bad magic tricks, just bad magicians'. Without a slick presentation, these segments and ratios will mean nothing. One now needs to master the art of communicating the applications of this information to the various departments within the company. This will allow this valuable analysis to be shared and integrate so that the company can share problems and solutions within

a consistent framework. Easier said than done, this is the biggest problem with most analysis, the implementation or the art of 'championing' the analysis. Most companies drop the ball here, so how can this be prevented? Well, in simple terms, this information must be presented in such a manner that everyone gets excited. As different groups within the company are worked with, an illusion needs to be created that this analysis was done just for that group. The author has three sleights of hand that he uses in the presentation process. These sleights will help an audience to visualise the power of the analysis and the applications for their specific business challenges. The first sleight is looking at the information on a one-dimensional level. For example, average sales are shown in Figure 1 with the second added dimension of penetration shown in Figure 2.

Two dimensions are more amazing than one. The segments that fall into the upper right-hand quadrant in Figure 2 are those that offer great value to the organisation. The company does well at attracting them (high penetration) and when acquired as a customer, they tend to spend more than the average. Clearly retention programmes should be developed for these customers and also acquisition programmes for non-customers that fall into these business segments. The segments that fall

Figure 1: Average sales

into the upper left-hand quadrant in Figure 2 are valuable (above average sales) but they are harder to acquire (low penetration). A low penetration rate indicates that a company must work harder (as in the past) to acquire these business segments. Special campaigns might be developed that target these business segments because clearly they are worth it. Similarly, those segments that fall into the lower right-hand quadrant in Figure 2 are valuable (high penetration) but they tend to spend less money. Special promotional campaigns might be developed for these business segments because the company does a nice job of attracting them, but they tend to spend less than the average segment. Lastly, the lower left-hand quadrant in Figure 2 represents those business segments that should have the lowest priority for the organisation (low sales, low penetration). This indicates that they are hard to acquire and when obtained as customers, they spend less than average. It might be worth considering steering marketing and sales efforts away from these segments.

To really dazzle an audience, three dimensions are shown in Table 3. In this example, three important measures of value are being analysed. Specifically, average sales tell how much a segment is worth, penetration tells how hard the

company has worked to attract this segment in the past, and percentage composition in the marketplace tells the size of the market. Segment 3 in this example scored high, high, high (HHH). The strategy for the HHHs would be high priority. At the other extreme, Segment 16 scored LLL so that the strategy for LLLs would be to limit exposure. Ask the audience what would be the strategy for an HLH (high, low, high) to get the crowd involved in the magic. The answer is 'opportunity is knocking' with this segment. Although there are high average sales, and there are a lot of them in the marketplace, the problem is a poor job of penetrating this segment. If the magic is presented well, the audience will be buzzing at this point, asking questions like 'Why are we so poor at penetrating this segment?' or 'What can we do to better penetrate this wonderful segment?' The author could go on, but the idea is that three dimensions are fun!

If appropriate, the analysis can be taken to four dimensions by adding 'cross-sell' to the list of variables (how many different products/services a particular segment purchases). An HHHL (high value, high penetration, high percentage in the marketplace, low cross-sell) is a segment that might be worthy of special cross-selling

Figure 2: Game plan

programmes. If the accounting department measures contribution to margin, add profit to the mix!

Clearly, the biggest application will be for sales. Immediately, 'hunters' should be focused on new high-potential prospects by ordering lists of HHH segments by sales territory. 'Farmers' should be focused on high-potential segments that are under-developed, such as customers who fall into segments that score HHH, but are spending less. Farmers can also begin calling on segments that score HHL (value, penetration, cross-sell) and work towards better cross-selling them. Sales managers can start looking at the presence of segments by geography and work towards better balancing their sales territories (sales representatives are always complaining about their territories, now there is a framework). A territory that

might have fewer prospects but higher value can be easily justified. Managers can also determine how many sales representatives are required in each territory (based on demand potential). This will vary by industry, but the author feels that for every million dollars in potential business at least one sales representative will be needed. Lastly, sales management can better determine the appropriate sales channel for prospects/customers. Low-value customers should be targeted by less expensive channels, such as telemarketing and direct mail, while more expensive sales channels, such as outside sales representatives, should target higher value prospects/customers. Some business segments might be better serviced through a third-party distribution channel, but the data will answer all

Table 3: Comparison table

Segment	Average sales	Penetration	% in marketplace
Seg1	High	Average	Low
Seg2	Low	High	Low
Seg3	High	High	High
Seg4	Average	High	High
Seg5	Low	High	Average
Seg6	Average	High	High
Seg7	High	Average	Low
Seg8	Low	Average	Average
Seg9	High	Low	Low
Seg10	High	Low	High
Seg11	Average	Low	High
Seg12	Low	Average	High
Seg13	Average	High	Low
Seg14	High	Low	Average
Seg15	Average	Low	Low
Seg16	Low	Low	Low
Seg17	Low	High	Average
Seg18	Average	Average	Average
Seg19	Average	Average	High
Seg20	High	Average	Average

these questions and more.

One of the author's favourite magical applications is for strategic planning. One economic forecasting company models and forecasts business growth and demand by four-digit SIC code by geography down to the postcode level. Econometric models of business growth and demand factor in forecasts of future economic conditions and known business cycle dynamics (such as input/output and what each industry buys from each industry). This information can help to determine what the future holds for the 20 segments, which ones will be growing, which ones will be shrinking, and any segments that have high demand potential for these products and services that currently may not be being reached. Remember, segmentation tells who the best customer is today, not necessarily who might be the best customer tomorrow.

SUMMARY

This is one of those magic tricks an audience will talk about long after the

performance. The magician displays an ordinary customer database, both hands are visible at all times, sleeves are rolled up. With a wave of the hand, the customer file is transformed into roughly 20 segments. The segments are completely viewed by the audience and can withstand the most rigid inspection without fear of revealing any gaffes or gimmicks. Because the segments were produced directly from the customer file, no one in the audience can dispute their authenticity. During the examination process, the segments magically come to life, dancing merrily, changing colours, disappearing and then reappearing larger than life. Every member of the audience is involved, there are no spectators. One can hear 'oohs' and 'aahs' as the audience begins to realise the segments were created just for them, to help them become more efficient in their targeting. Different audience members from different departments are talking a new language, communicating common challenges like never before and all that practising has finally paid off.