

Solutions

Reconciling Hispanic and non-Hispanic Product Evaluation Ratings

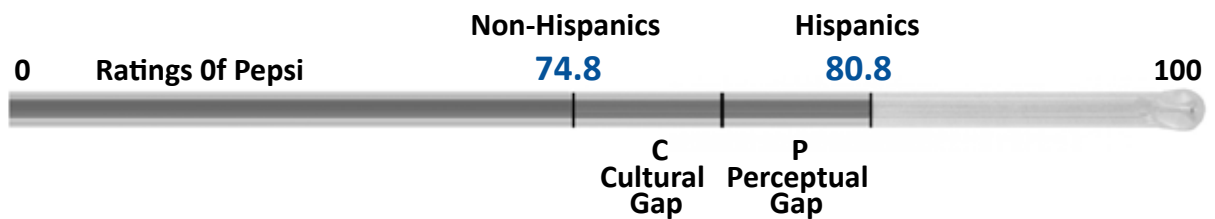
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It is well known that Hispanics in the U.S. tend to rate products and services higher than the general market. The reason why is not clear. Here is one hypothesis. Hispanics, especially those of Mexican heritage, are taught from a very early age that it is not polite to berate or disparage any product, service, individual or point of view. This suggests a philosophy which supports praise and discourages criticism. Therefore, it is possible that their ratings of products and services tend to be higher than those of non-Hispanics for cultural reasons alone.

Regardless of the etiology, the fact that Hispanics give higher ratings poses a serious problem for marketing researchers and marketers. How, after all, can datasets from surveys of Hispanics and non-Hispanics be combined? How can they be compared? How can effective marketing and advertising programs be developed for each group? For the combined group?

In a recent telephone survey, 100 Hispanics and 100 non-Hispanics in the Dallas area were asked to rate Pepsi using a thermometer scale of 0-100, where 0 is "worst possible rating" and 100 is "best possible rating" they would ever give to any product.

Hispanics gave an average rating of 80.8 while the non-Hispanic consumer gave an average rating of 74.8. The gap of 6.0 is statistically significant but is it substantive? How much of the difference is strictly cultural, i.e., due to the fact that Hispanics rate products higher, and how much is due to the fact that Hispanics may really like the brand more? In other words, do Hispanics really favor Pepsi more than non-Hispanics?



The remainder of this article discusses a method for measuring the cultural component imbedded in Hispanic product ratings, and how to reconcile and combine survey data from Hispanics and non-Hispanics. Related studies demonstrate how this technique enables marketers to make more informed decisions about targeting Hispanics for different products and services. This results in improved return on investment of marketing funds along with increased sales.

It is well known that Hispanics in the U.S. tend to rate products and services higher than the general market, but the actual impact of cultural influences has not been clear.

On a 0-to-100 point scale, Hispanics rate products an average of 5.9 points higher than non-Hispanics.

ISOLATING THE CULTURAL COMPONENT¹

In an in-person survey conducted in the Dallas area, 154 Hispanics and 100 non-Hispanics were shown a thermometer scale with “excellent”, “very good”, “good”, “neither good nor poor” and “poor” labels. They were asked to mark on the thermometer scale where they would rate a product they believed to be “excellent”, one that was “very good”, etc., from the labeled scale. The results are shown below. The average ratings for each labeled scale point are shown below for both groups along with the differences.

| THERMOMETER SCALE RATINGS FOR DIFFERENT LABELED SCALE POINTS | | | |
|--|-----------|---------------|------------|
| Verbal Description | Hispanics | Non-Hispanics | Difference |
| Excellent | 98.5 | 93.6 | 4.9** |
| Very Good | 85.6 | 78.5 | 7.1** |
| Good | 73.1 | 65.9 | 7.2** |
| Neither Good Nor Poor | 55.5 | 48.7 | 6.8** |
| Poor | 26.0 | 25.1 | 0.9 |

Not surprisingly, Hispanics gave significantly higher ratings to products that are excellent, very good, good and neither good nor poor than non-Hispanics. The big surprise is that both groups gave the same numerical ratings to products they think are poor!

The respondents to this survey were also asked to indicate the percentage of products in the world which they believe to be “excellent”, “very good”, “good”, “neither good nor poor” and “poor”. The results were not significantly different except that it appears Hispanics find more products that are “excellent” and fewer that are “very good”, possibly again reflecting their propensity to praise and not criticize.



| AVERAGE PRODUCTS with DIFFERENT GRADES | | | | | |
|--|-----------|-----------|-------|-----------------------|-------|
| | Excellent | Very Good | Good | Neither Good Nor Poor | Poor |
| Average | 25.6% | 24.8% | 24.4% | 13.3% | 11.8% |

Using the averages from the above table as weights for the thermometer scale ratings we can compute the average ratings given by Hispanics (74.8) and non-Hispanics (68.9), on the 0-100 thermometer scale and their average difference. The average difference of 5.9 is statistically significant.

1. In this document, ** means significantly different at the 95% confidence level, and * means significantly different at the 90% confidence level

| | HISPANICS | NON-HISPANICS | DIFFERENCE |
|------------------------|-----------|---------------|------------|
| Average Ratings | 74.8 | ** 68.9 | 5.9 |

Moreover, since none of these ratings involves any particular product, this average of 5.9 is strictly a cultural one. It follows that, after adjusting the average Hispanic rating of Pepsi downward by the cultural component of 5.9, the Pepsi rating of 80.8 becomes 74.9 which is not statistically different from the non-Hispanic rating of 74.8. The conclusion is that Hispanics and non-Hispanics rate Pepsi the same.

SUBGROUP ANALYSIS -- TOTAL SAMPLE

The higher ratings of Hispanics over non-Hispanics pervades all demographic groups studied for all of the average ratings and all five of the rating scale labels, except "poor": male, female; 18-34, 35+; income under \$35k, income \$35k+; no college and at least some college. For the more educated group, no significant difference exists between the groups on the "neither good nor poor" scale point.

DEMOGRAPHIC DIFFERENCES IN THE TOTAL SAMPLE

| | TOTAL | TOTAL | | MALE | | FEMALE | | 18 to 34 | | 35 + | |
|--------------------------|-------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|
| | | Hispanic | Non-Hispanic | Hispanic | Non-Hispanic | Hispanic | Non-Hispanic | Hispanic | Non-Hispanic | Hispanic | Non-Hispanic |
| Base | 253 | 154 | 100 | 70 | 54 | 84 | 47 | 101 | 45 | 53 | 56 |
| Excellent | 96.6 | 98.5** | 93.6 | 98.7** | 92.7 | 98.3** | 94.7 | 98.4** | 92.8 | 98.8** | 94.3 |
| Very Good | 82.9 | 86.6** | 78.5 | 85.0** | 78.4 | 86.2** | 78.7 | 85.6** | 77.3 | 85.8** | 79.5 |
| Good | 70.3 | 73.1** | 65.9 | 71.6** | 65.5 | 74.4** | 66.4 | 72.6** | 64.7 | 74.2** | 66.9 |
| Neither Good Nor Poor | 52.8 | 55.5** | 48.7 | 54.7** | 49.1 | 56.1** | 48.3 | 54.6** | 47.8 | 57.1** | 49.4 |
| Poor | 25.6 | 26.0 | 25.1 | 25.9 | 26.8 | 26.1 | 23.1 | 25.2 | 22.7 | 27.5 | 26.9 |
| AVERAGE | 72.5 | 74.8** | 68.9 | 74.2** | 68.8 | 75.3** | 69.1 | 74.4** | 67.8 | 75.6** | 69.9 |

| | TOTAL | NO COLLEGE | | AT LEAST SOME COLLEGE | | LESS THAN \$35K | | \$35K + | |
|--------------------------|-------------|---------------|--------------|-----------------------|--------------|-----------------|--------------|---------------|--------------|
| | | Hispanic | Non-Hispanic | Hispanic | Non-Hispanic | Hispanic | Non-Hispanic | Hispanic | Non-Hispanic |
| Base | 253 | 105 | 36 | 49 | 63 | 87 | 45 | 65 | 54 |
| Excellent | 96.6 | 98.6** | 93.4 | 98.3** | 93.7 | 98.8** | 92.8 | 98.1** | 94.3 |
| Very Good | 82.9 | 85.4** | 77.4 | 86.1** | 79.2 | 85.1** | 76.3 | 87.0** | 80.4 |
| Good | 70.3 | 73.9** | 63.6 | 71.4** | 67.2 | 72.6** | 63.2 | 74.6** | 68.1 |
| Neither Good Nor Poor | 52.8 | 57.2** | 46.1 | 51.7** | 50.2 | 54.2** | 43.7 | 57.8** | 52.9 |
| Poor | 25.6 | 27.0 | 20.3 | 23.8 | 27.8 | 23.9 | 17.8 | 28.8 | 31.1 |
| AVERAGE | 72.5 | 75.3** | 67.1 | 73.7** | 70.0 | 74.1** | 66.2 | 76.0** | 71.4 |

SUBGROUP ANALYSIS – HISPANIC SAMPLE

Nevertheless, few significant differences surfaced between different Hispanic demographic groups for the average ratings or the individual rating scale labels. The exceptions are the following groups, which have higher average ratings:

- Spanish-language dominant respondents rate products higher
- Consumers of Spanish media
- People born in Mexico rate products higher than those born in the U.S.

| | TOTAL | GENDER | | AGE | | AT LEAST SOME COLLEGE | | INCOME | |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-----------------------|-------------|-------------|-------------|
| | | Male | Female | 18-34 | 35 + | No | Yes | < \$35K | \$35K + |
| Base | 154 | 70 | 84 | 101 | 53 | 105 | 49 | 87 | 65 |
| Excellent | 98.5 | 98.7 | 98.3 | 98.4 | 98.8 | 98.6 | 98.3 | 98.8 | 98.1 |
| Very Good | 85.6 | 85.0 | 86.2 | 85.6 | 85.8 | 85.4 | 86.1 | 85.1 | 87.0 |
| Good | 73.1 | 71.6 | 74.4 | 72.6 | 74.2 | 73.9 | 71.4 | 72.6 | 74.6 |
| Neither Good Nor Poor | 55.5 | 54.7 | 56.1 | 54.6 | 57.1 | 57.2** | 51.7 | 54.2 | 57.8 |
| Poor | 26.0 | 25.9 | 26.1 | 25.2 | 27.5 | 27.0 | 23.8 | 23.9 | 28.8 |
| AVERAGE | 74.8 | 74.2 | 65.3 | 74.4 | 75.6 | 75.3 | 73.7 | 74.1 | 76.0 |

| | TOTAL | SPANISH LANGUAGE DOMINANT | | CONSUME SPANISH MEDIA | | COUNTRY OF ORIGIN | | COUNTRY OF BIRTH | | |
|-----------------------|-------------|---------------------------|-------------|-----------------------|--------------|-------------------|-------------|------------------|-------------|-------------|
| | | Yes | No | None | Some | Mexico | Other | Mexico | Other | US |
| Base | 154 | 67 | 87 | 36 | 118 | 102 | 52 | 34 | 28 | 90 |
| Excellent | 98.5 | 99.0 | 98.1 | 97.8 | 98.7 | 98.4 | 98.7 | 99.4*US | 98.9 | 98.0 |
| Very Good | 85.6 | 87.7** | 84.0 | 85.3 | 85.7 | 85.2 | 86.4 | 87.3 | 86.3 | 84.8 |
| Good | 73.1 | 74.5 | 72.0 | 70.4 | 74.0 | 73.1 | 73.2 | 75.7 | 73.0 | 72.2 |
| Neither Good Nor Poor | 55.5 | 59.3** | 52.5 | 50.4 | 57.0** | 54.5 | 57.3 | 61.8**US | 56.7 | 52.7 |
| Poor | 26.0 | 29.5 | 23.2 | 20.7 | 27.6* | 24.0 | 29.9 | 28.9 | 27.0 | 24.6 |
| AVERAGE | 74.8 | 76.7** | 73.3 | 72.6 | 75.4* | 74.3 | 75.8 | 77.3**US | 75.3 | 73.7 |

Although the averages are not significantly different, there is statistical evidence that Hispanics in the following demographic groups also rate products higher:

- 35+ year olds rate products higher
- Those whose country of origin is not Mexico rate products higher
- People born in Mexico rate products higher than those born in other Latin American countries who, in turn, rate products higher than those born in the U.S.

To see this consider the 18-34 versus the 35+ age group. For each of the five rating scale points, the 35+ age group has higher average ratings than the 18-34 year old group. If these average ratings were the same, the chance that all five average ratings from the 35+ age group would be higher is $(1/2)(1/2)(1/2)(1/2)(1/2)=3.1\%$. This figure is less than the 5% threshold needed to prove statistical significance. Therefore, the 35+ age group rates products higher than their younger Hispanic counterparts.

EXAMINING ACCULTURATION

It would seem logical that the more acculturated Hispanics are, the more like non-Hispanics their rating of products would be. However, the level of acculturation may be defined in many ways. We used a six-point index from 0 to 5. A respondent was given one point for each of the following conditions:

- Speak English at least as much as Spanish at home
- Education includes at least some college
- Income is at least \$35,000
- Consume no Spanish language media
- Born in the US

We then compared Hispanics with an acculturation index of 0 to 2 versus those with an index of 3 to 5. Again, although there was no significant difference in the overall average acculturation rating scores between these two groups, the average score for each of the five rating scale labels was higher for the 0 to 2 group than the 3 to 5 group. Indeed, as the acculturation index increases from 0 to 5, the average rating decreases as well from 77.1 to 72.3!

Clearly, unacculturated Hispanics rate products higher than those who are more ingratiated into the culture in the United States.

MEXICAN HERITAGE

Does the Mexican population really rate products higher than Hispanics from other countries? The answer is no and yes. Country of origin, defined as the birthplace of the most recent immigrant(s) in the family, is often considered a critical variable in marketing to different Hispanic groups in the U.S.

Yet, the data from this study indicates that those whose country of origin is Mexico actually rate products significantly lower than those whose country of origin is elsewhere in Latin America! The reason is because so many Hispanics, and therefore so many Mexican-Americans were born in the U.S. and may have lost the inclination to “praise and not criticize”. Indeed, the highest ratings due to culture alone are from the Hispanics born in Mexico followed by those born elsewhere in Latin America followed by those born in the U.S.

ADJUSTING PRODUCT RATINGS

We asked 100 Hispanics and 100 non-Hispanics to rate three brands in each of three categories: soft drinks, over-the-counter remedies, and cellular providers using the 0-to-100 point thermometer scale. In each category we chose one brand which we believed Hispanics would rate higher, one which non-Hispanics would rate higher, and one for which we thought the ratings would be about the same. Here are the brands we selected:

| | SOFT DRINKS | MEDICINES | CELLULAR PROVIDERS |
|-----------------------------|-------------|--------------|--------------------|
| Hispanics Prefer | Fanta | Alka Seltzer | MetroPCS |
| Non-Hispanics Prefer | 7-UP | Advil | Verizon |
| About Equal | Pepsi | Tylenol | AT&T |

Country of birth is much more important than country of origin in determining how much higher Hispanics will rate products and services.

Hispanics born in Mexico give the highest ratings; Hispanics born in the US give the lowest.

Before ratings are adjusted, Hispanics seem to be a better target for Pepsi and Tylenol than non-Hispanics. After the rating adjustment, they are at parity.

Soft Drinks

Looking at the raw data, it appears Hispanics favor Pepsi and Fanta, and both Hispanics and non-Hispanics rate 7-Up the same. However, after the 5.9 adjustment is deducted from the average Hispanics' ratings, Hispanics still favor Fanta. Now, however non-Hispanics favor 7-Up and both groups rate Pepsi the same!

| | Actual | | Adjusted | |
|-------|-----------|---------------|-----------|---------------|
| | Hispanics | Non-Hispanics | Hispanics | Non-Hispanics |
| Fanta | 80.0 | ** 57.6 | 74.1 | ** 57.6 |
| 7-Up | 73.0 | 73.7 | 67.1 | ** 73.7 |
| Pepsi | 80.8 | ** 74.8 | 74.9 | 74.8 |

OTC Remedies

The raw data indicates that Hispanics and non-Hispanics rate Advil the same while Hispanics prefer Alka-Seltzer and Tylenol. After the adjustment, it is apparent that non-Hispanics prefer Advil while both groups rate Tylenol the same as they do Alka-Seltzer.

| | Actual | | Adjusted | |
|--------------|-----------|---------------|-----------|---------------|
| | Hispanics | Non-Hispanics | Hispanics | Non-Hispanics |
| Alka-Seltzer | 73.4 | ** 65.5 | 67.5 | 65.5 |
| Advil | 80.1 | 80.1 | 74.2 | * 80.1 |
| Tylenol | 85.7 | * 80.6 | 79.8 | 80.6 |

Cellular Phone Providers

Before adjusting the ratings, it seems Hispanics and non-Hispanics are at parity on all cellular phone providers. After the adjustment for Hispanics' ratings, it is apparent that both groups rate Metro PCS and AT&T about the same while non-Hispanics favor Verizon. (We believe fewer changes were realized in the rating of these brands because lower awareness and familiarity with the particular brands led people to give middle-of-the-road ratings or no ratings at all, reducing the effective sample size.)

| | Actual | | Adjusted | |
|-----------|-----------|---------------|-----------|---------------|
| | Hispanics | Non-Hispanics | Hispanics | Non-Hispanics |
| Metro PCS | 62.1 | 59.7 | 56.2 | 59.7 |
| Verizon | 65.4 | 68.1 | 59.5 | ** 68.1 |
| AT&T | 79.2 | 75.9 | 73.3 | 75.9 |

Before ratings are adjusted, both groups appear to be at parity for 7-Up, Advil and Verizon. Afterward, the general population is a better target than Hispanics!

COMBINING PRODUCT RATINGS

Product ratings for any sample of non-Hispanics and Hispanics can be combined in a very straightforward manner. Assuming Hispanics currently represent 15% of the US population, we would simply weight their adjusted ratings 15% along with the non-Hispanics at 85%. This is illustrated below:

| PRODUCT | ADJUSTED HISPANIC RATINGS | NON-HISPANIC RATINGS | COMBINED RATINGS |
|---------------------------|---------------------------|----------------------|------------------|
| Soft Drinks | | | |
| Fanta | 74.1 | 57.6 | 60.1 |
| 7-UP | 67.1 | 73.7 | 72.7 |
| Pepsi | 74.9 | 74.8 | 74.8 |
| OTC Remedies | | | |
| Alka Seltzer | 67.5 | 65.5 | 65.8 |
| Advil | 74.2 | 80.1 | 79.2 |
| Tylenol | 79.8 | 80.6 | 80.5 |
| Cellular Providers | | | |
| MetroPCS | 56.2 | 59.7 | 59.2 |
| Verizon | 59.5 | 68.1 | 66.8 |
| AT&T | 73.3 | 75.9 | 75.5 |

USING OTHER NUMERIC SCALES

The thermometer scale has a range of 0-to-100 = 100 points. Using this scale, Hispanics rate products an average of 5.9 points higher than non-Hispanics. It stands to reason on a 0-to-10 point scale Hispanics would rate product 0.59 points higher. Similarly, on a 1-to-10 point scale with a 9 point range, they would rate products $0.9 \times 0.59 = 0.53$ points higher. The chart below shows how much higher Hispanics should rate products for strictly cultural reasons, depending on the scale used. Of course, ratings may also be affected depending on whether the scale has an odd number of points or an even number of points.

| Scale | Range | Hispanic rate adjustment |
|-------|-------|--------------------------|
| 0-100 | 100 | 5.90 |
| 0-10 | 10 | 0.59 |
| 1-10 | 9 | 0.53 |
| 1-7 | 6 | 0.35 |
| 1-6 | 5 | 0.30 |
| 1-5 | 4 | 0.24 |

Combined product ratings can be

computed simply by

taking 15% of the

adjusted Hispanic

scores plus 85% of the

non-Hispanic scores.

Hispanic ratings are

an average of 5.9

points higher on the

0-to-100 scale, 0.53

points higher on the

1-to-10 scale and 0.35

points higher on the

1-to-7 scale.

SUMMARY

Hispanics are known to rate products and services higher than non-Hispanics due to their cultural backgrounds. Until now, no one has been able to remove the cultural bias from the difference in ratings. We have demonstrated a method which shows that, on average, Hispanics rate products 5.9 higher than non-Hispanics on a 0-to-100-point scale based on culture alone.

The sample used was not nationwide nor was it weighted to reflect the proper distribution of demographic groups throughout the U.S. In addition, we believe this adjustment factor may actually vary from category to category based on other factors. Therefore, we do not recommend automatically using the 5.9 as the final inflation factor in Hispanic ratings.

Nevertheless, by using this overall approach, marketers will now be able to combine Hispanic and non-Hispanic survey research data more accurately to determine how the groups really compare. More importantly, how to develop better marketing campaigns directed at either target separately or with both groups combined.

If you would like to learn more about how to adjust data from Hispanics to remove the cultural bias and make more informed decisions that improve your marketing results, call Jeff Savitz at Savitz Research Solutions at 972-386-4050 ext. 208.

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