# The Pros and Cons of Qualitative Analysis

## Why it is gaining popularity among appraisers

BY TIMOTHY HOLZHAUER

Qualitative analysis is a very powerful tool when applied properly. We use it all the time in appraisal, whether we realize it or not. When we narrow our sales and rentals, we use qualitative analysis to choose the most comparable properties. When we make judgment calls on quality, appeal and other non-mathematical factors related to sales, we are using qualitative analysis. When we narrow the highest and best use, we are using qualitative analysis. In many cases, when we compare the approaches in the reconciliation, we are using qualitative analysis. The process is common throughout appraisal procedure, yet many appraisers and reviewers still view it as unsubstantiated judgment run amok.

The key to understanding and properly applying qualitative analysis in the approaches to value is realizing that the factors considered, the principles applied and the overall processes followed are the same in both qualitative and quantitative analysis. This article will explore the reasoning for and use of qualitative analysis in the appraisal process, and several methods of application, primarily in comparing sales and rentals to the subject property.

### What is Qualitative Analysis?

Qualitative analysis is the process of comparing factors using general terms and general quality comparisons, instead of specific dollar or percentage adjustments. As mentioned above, we apply qualitative analysis in the appraisal process in a number of areas:

1) Selecting the sales to compare. Out of all of the sales, why are some sales picked over others?

2) Determining the best unit of comparison. Some investors in the market might use one unit, while other investors elect to use different units.

3) Identifying salient features for comparison. How are the salient features chosen? How much more important is one factor over another?

For each of these considerations, we review that market, interview participants and analyze a number of sales. But how do we specifically weigh each factor? In selecting sales, is the sale chosen for direct comparison 10% better than those not chosen? Is it 20% better? Our judgment is that they are "better" or "best." These are qualitative judgments.

The most common question we are asked is: "Isn't it misleading to just use your judgment in the sales comparison analysis?" Strictly speaking, when we make any adjustments to the sales, we are making judgments. Unless percentage or dollar adjustments are based on a huge sample of perfectly paired sales, we are using our judgment to make the adjustments. Even time adjustments are based on our judgment of the changes over time – selection of sales to find the adjustments, concluding that the sample of sales accurately reflects the change over time, reconciling differences between different answers by different paired sales, acknowledging the importance of differences other than time between sales. Likewise, financing adjustments use judgment – what are market terms? What would the difference be?

Most importantly, the other factors involved in the sales comparison approach are also viewed qualitatively. Why do we select a 5% adjustment for location? Because the subject has a "slightly better" location? Why is "slightly better" a 5% adjustment? Why is "much better" a 20% adjustment? We use our judgment to select the percentage adjustments. But instead of using the 5% or 20% adjustments, we substitute "slightly superior" or "much superior" to validate the adjustment in text. Qualitative analysis has the same effect, but is more reflective of what investors in the market are typically doing.

When a homebuyer walks into a home, we rarely hear them say, "This one has a fireplace, so I'll pay $2,500 more for it." They are much more likely to say, "This one has a fireplace; I like it a little more than the one that doesn't." In industrial properties, some factors may be able to be mathematically estimated, such as the value of an additional two feet of clearance, which is based on the additional stock that could be stored. But the mass amount of data required to make an accurate estimate of that factor makes it extremely unlikely to be estimated precisely based on market evidence.

**"...many appraisers and reviewers still view it as unsubstantiated judgment run amok."**

Using qualitative analysis can reduce the risk of over-adjusting sales, because the subject will need to be bracketed by sales prices. With quantitative analyses, the sales can easily be adjusted significantly, artificially raising or lowering the indicated value well above or well below the range of the unadjusted sales. The indicated value is therefore not supported by the sales evidence.

## Research and Analyses

Qualitative analysis does not relieve the appraiser of the duty to complete adequate research and analysis. In fact, the required research and analyses does not change between qualitative and quantitative methodologies. The research required is the same.

The selection of sales does not change. We still need to search the market, find and verify as many appropriate sales as we reasonably can, and then use qualitative analysis to narrow the sales to the most appropriate ones, just as in a quantitative analysis.

It cannot be stressed enough that the analyses of the sales and the elements of comparison need to be diligently and appropriately selected and considered, just as in quantitative analysis. The same process is followed, with the same consideration given. The elements of comparison are selected and judgments are made regarding the relative weight of each element. Then the elements of the subject are given quality levels, as is each element on each sale. The analysis is then completed with the subject placed among the sales where the weighted elements indicate that it should fall. In that way, the subject is appropriately placed among the actual sale prices, instead of in an artificially created range of adjusted sale prices.

It is common to use some combination of the two methodologies as well. The most common adjustment made quantitatively is market

**"When a homebuyer walks into a home, we rarely hear them say, "This one has a fireplace, so I'll pay $2,500 more for it."**

conditions (time). This adjustment is somewhat easier to quantify than the others, and can be extracted from far more sales data than what is used in the present report. General trends over time are easier to spot, given the mathematical nature of the date of sale.

Another factor that is easy to make accurate quantitative adjustments for is non-market financing. While determining what true market financing is might be somewhat difficult, making mathematical adjustment to sales with that information is less difficult.

## Methodology

There are several methods frequently used to apply qualitative analyses. One method simply involves saying that a sale is superior or inferior without providing any details regarding which elements of comparison were used nor how they were weighted. While this may be sufficient in the barest of restricted use reports, it doesn't produce anything for a user or reviewer to analyze. Generally, qualitative analyses should be just as transparent as quantitative ones. The best way to do that is to create some type of chart to illustrate the analysis.

There are three types of charts used in this type of analysis. The first chart uses symbols to indicate whether the sales' elements are superior or inferior in comparison to the subject. The second chart arrays the sales by price per unit, then discusses the elements and their comparison to the subject property. The third weights each element, gives a grade to each element, correlating the sale price per unit into a "price per point," then uses a reconciled price per point applied to the subject property points. Regardless of which method is used, the elements must be clearly defined and weighted

**Table 1 - Comparing Sales Elements to Subject**

| SALE # | $/SF | MARKET | SIZE | LOCATION | APPEAL | OVERALL | INDICATION |
|---|---|---|---|---|---|---|---|
| 1 | $56.11 | 1.01 | > | < | >> | >> | $56.67 |
| 2 | $116.36 | 1.02 | > | < | < | < | $118.69 |
| 3 | $33.36 | 1.03 | >> | – | > | >>> | $34.36 |
| 4 | $54.20 | 1.03 | > | < | > | > | $55.83 |
| 5 | $164.15 | 1.03 | - | < | < | << | $169.07 |
| 6 | $159.33 | 1.05 | - | < | < | << | $167.30 |
| 7 | $45.54 | 1.05 | >>> | < | < | > | $47.82 |
| 8 | $88.75 | 1.11 | - | < | >> | > | $98.51 |
| 9 | $66.70 | 1.13 | > | < | > | > | $75.37 |

**Table 2 - Sales By Price and Comparison of Elements**

| Sale | Price/SF | Comments |
|---|---|---|
| 1 | $6.51 | This sale is located in a busier area along the main road, is much larger than the subject effective size, has similar access and retail potential, but is slightly inferior due to the subject's lack of competition. Overall, primarily due to the size of the lot, the subject should be more valuable than $6.51 per square foot. |
| 3 | $7.00 | This sale is located in the rear of a business park, is much larger than the subject effective size, has inferior access and retail potential, and is slightly inferior due to the subject's lack of competition. Overall, primarily due to the size of the lot, the subject should be more valuable than $7.00 per square foot. |
| 2 | $7.84 | This sale is located in the rear of a business park, is much larger than the subject effective size, has inferior access and retail potential, and is slightly inferior due to the subject's lack of competition. Overall, primarily due to the size of the lot, the subject should be more valuable than $7.84 per square foot. |
| 4 | $8.00 | This sale is located along a secondary road with some visibility from the highway, is slightly smaller than the subject effective size, has similar access but somewhat inferior retail potential, and is similar in visibility to the subject. Overall the subject should be slightly more valuable than $8.00 per square foot. |
| Sub | $8.50 | Best Fit for Subject |
| 5 | $9.00 | This sale is located along a secondary road with some visibility from the highway, is slightly smaller than the subject effective size, has similar access but somewhat inferior retail potential, and is similar in visibility to the subject. Overall the subject should be slightly less valuable than $9.00 per square foot. |

in importance either on the table or in the text of the approach. My format usually discusses the elements in appropriate detail in the text, simplifying the tables.

The first method is a simple table with the sales along one axis, and the elements of comparison along the other. In Table 1, the plus or minus signs, and greater than or less than symbols, are used to indicate which sales are considered superior or inferior, while more than one type of each symbol indicates how much more superior or inferior the element is in comparison to the subject. This method is good for those who prefer to see a structured table with comparisons visible at a glance.

Another table that is frequently used is one that arrays the sales by sale price per unit, with the sale identification on the left, the sale price per unit in the center, and a comment section on the right. I usually place the subject in order of where it should fall among the sales. In this type of table, the comment section is most important, as it is where each element is discussed in comparison to the subject property. If the factors for each element are discussed in text format (above the table), and each element is weighted, the chart can be simplified to a simple discussion of which element is superior or inferior, and where the sale falls in comparison to the subject property. Table 2 is a sample of this method, which is ideal for those who prefer to discuss the factors in narrative fashion.

The last method is the most detailed. I developed this technique to give more detail to qualitative analyses. In this method, the elements of comparison are selected, and their relative weight is considered. Then, the element is graded for each sale and subject, and the grades are correlated into a final point count for the sale. The point count is then divided into the sale price to give a "price per point." The price per point for all of the sales are reconciled into one point value, and this is applied to the point total for the subject property to provide an estimate of value per unit.

For example, location is usually an important factor, and may be given a weighting of 3. It varies by market and property type, but let's say for the particular property we are appraising, condition is less important, say a weighting of 1. So, if you are using a range

> **"the required research and analyses does not change between qualitative and quantitative methodologies."**

of 1-5, with 5 being excellent, let's say the property is in an excellent location and is in excellent condition. The points provided by these two factors would be calculated as 3 (weighting) times 5 (grade), for a total of 15 for location, and 1 times 5, for a total of 5 for condition. This would mean that the property has a total score of 20. The weighting and grades will vary from market to market and property type to property type.

If these were the only two factors, this would be divided into the sale price per unit to give a price per point. For instance, if the sale price were $20 per square foot, the price per point would be $1.00 ($20 divided by 20 point score). If the subject scored a 3 (average) for location and 3 (average) for condition, it would have a total score of 12 (3 times 3 for location plus 1 times 3 for condition). Then, taking the subject score of 12 multiplied by the price per point indicated by the sale ($1.00) indicates a value for the subject of $12.00. Table 3 is an example of this method.

Rather than multiplying the element grade for weighting, the range could simply be greater. For instance, if the less important elements would be given a 1 weighting while the more important ones are given a 3, the range of the less important factors could be 1-5, while the more important ones are given a range of 1-15. Even less important elements could be given a range of 1-2. Regardless of how it is done, consistency is critical in this technique.

## Conclusion

Regardless of the methodology used in qualitative analysis, the theory and practice is no less demanding than what is used in quantitative analysis. It places the subject within the actual range of the sale price per unit, rather than a range created by quantitative adjustments. It uses the same amount of professional judgment as quantitative analysis and requires just as much work, research and analyses. It should be written to be transparent, just as quantitative analysis should be. The Uniform Standards of Professional Appraising Practice (USPAP) requires that reports be understood by the intended user, and qualitative analysis does not relieve the appraiser of that requirement.

Qualitative analysis is a very effective appraisal methodology, and it is growing in popularity among appraisers. It accurately reflects the thinking of investors, and when used correctly, it is appropriate for use in most appraisals.

**Table 3 - Weighting and Grading Each Element**

| | | Weighting Element | 3 Location | 3 Size | 2 Utilities | 2 Topography | 1 Shape | Total | Price/SF | Price/Point |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | Grade | 3 | 1 | 3 | 5 | 3 | | | |
| | | **Total** | **9** | **3** | **6** | **10** | **3** | **31** | **$ 17.65** | **$ 0.5694** |
| Sale # | 2 | Grade | 5 | 3 | 3 | 5 | 5 | | | |
| | | **Total** | **15** | **9** | **6** | **10** | **5** | **45** | **$ 25.65** | **$ 0.5700** |
| | 3 | Grade | 3 | 3 | 3 | 5 | 3 | | | |
| | | **Total** | **9** | **9** | **6** | **10** | **3** | **37** | **$ 21.00** | **$ 0.5676** |
| | Subject | Grade | 4 | 3 | 3 | 3 | 1 | | | |
| | | **Total** | **12** | **9** | **6** | **6** | **1** | **34** | | |
| | | | | | | | | **Indication** | **$ 19.38** | **$ 0.5700** |