ANALYSIS OF CANADIAN MLS DATA, FINANCIAL IMPACT OF HOME STAGING

with Respect to Property Listings Days On Market and Final Sale Price

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PRESENTED TO REAL ESTATE STAGING ASSOCIATION

Staging Services Research

Analysis of Canadian (CREA) MLS Data for Liberty Village, Toronto, Canada between 2011 – 2013, and the Financial Impact of Home Staging with respect to Reducing a Property Listings Time to Sale (Days-On-Market) and the Final Sale Price.

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This report examines and verifies the reduction of days on marketing from Canadian MLS data and the claims from home stagers quoting a RESA 2010 report and other home staging organizations publish claims of increased valuation of properties. A correlation is found confirming staging reduces time on market and saves sellers money, but does not find a significant statistical relationship between the final sale price and whether a home has been staged for sale.

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Executive Summary

A need arose to validate claims that staging produced results to reduce a property's time on the market and that staging increased the valuation of a home in terms of final sale price by 5-10%. Claims of up 78% time reduction of time to sell reduction were published online quoting RESA statistics, by some home stagers. For example, "It is commonly shown that quality & effective staging can result in a 3 – 8% higher selling price and spend half the time on the market." was found mixed with RESA statistics on one home staging website. And Another site http://www.stagedhomes.com/mediacenter/stagingstatistics.php - citing research from the International Association of Home Staging Professionals.

The purpose of this research report collected data from one neighbourhood of Toronto to verify the performance and return on investment on market return on investment claims. Data forwarded by Coldwell Banker Terrequity (W&Y Homes Liberty Village), and Three Towers Residential from existing MLS listing and sales data found in the Canadian Real Estate Association (CREA) database for Liberty Village district of Toronto—a new multi-billion dollar development. Sales data required visual inspection of MLS listings to identify if the units were furnished (staged) for sale. Tabulation of data for the time period 2011 through 2012 was collected and analyzed. 670 units were listed with 442 sold. This provides sufficient data to draw a conclusion on one district for this time period.

Analysis found that staging on average does have a statistically significant correlation to the reduction of days on market but weak support of the outcome of final negotiated selling price. The average Days-On-Market (DOM) was 37.26 days with most properties selling in the first 2 weeks of listing during this time period. Days on market ranged from 1 to 218 days. It is noted that if there is momentum and the market is considered "hot" properties will likely sell with or without staging based on investment. The question then becomes, "by what degree would staging improve sales", in a hot market vs a weak market. That question cannot be answered by this report's analysis.

The mean price for the neighbourhood analyzed was $518,086 per condo. The difference (in percentage terms) between the list price and the final sale price was analyzed. The average condo list to sale differential (%) was 4.16% (between $0 and $21,550). This figure therefore contradicted claims by some staging firms quoting RESA statistics indicating homes sell for 5% to 8% more.

Some units did not sell and therefore, the differential was between -75% and -100%. The regression model accounted for 50% of the variation in the final sale price and is a moderate ability to predict the final sale price based on staging and other factors because the seller controls acceptance of the final sale price, normally pegged as an industry standard to between 93% and 97% of the list price. In a seller's market with multiple bid offers and aggressive sale tactics, the final sale price can reach past 100% of asking price. It was shown that DOM ranged from 1 to 218 days if unsold, and those that were staged typically sold within 0 to 75 days. Some units that were staged were not sold. Notably, almost all units staged were sold, and an equal proportion of units that were not staged were both sold and not sold. The relationship with staging may be causal or simply correlated to an external motivator, or both:

a. Staging properties directly improve buyer offers
b. The buyer is motivated to sell quickly and will stage the property simultaneously, but the staging does not cause the sale to expedite more quickly—the seller and buyer negotiate because the seller is motivated to sell quickly
c. Both a) and b) in some undetermined proportion

In summary, for Toronto's Liberty Village during 2011-2012, the prediction regression formula was determined to be: $445,889-170x(taxes)+.09205x(taxes^2)-.000005x(taxes)^3 provided an estimate to account for 55.81% of the variation in the final sale price which may or may not be attributed to staging the home. "Taxes" is a direct relationship with square footage and value of property—so there is room for staging to impact the final price.

The return on investment of staging should be calculated, therefore and be the primary lever over lowering the price as the standard tool to reduce time on market. Lowering the price will have a similar effect on close a sale quickly. The calculation of the return of the investment in cost of staging is the incremental cash flows generated:

Incremental Cash (ROI) = reduction in time (cost of capital and opportunity cost) / cost of staging services. Most published claims leave out the cost of capital and opportunity cost in this calculation which erroneously lowers the return on investment of staging services: the reduction in $500,000 x 5% mortgage interest for 3 months, for example, is $6,250. If the staging fee for this condo is $2,500, then the return on investment is the increased valuation from staging (6%) PLUS, ($6,250-$2,500) = $3,750. In this example, the ROI of staging is 150% as a service, and the total return on staging as high **844%** ($500,000 property, selling at 93% without staging and 106% with staging, and $3,750 in time-savings interest with a net difference of $31,650 over a cost of staging of $2,500.) A portion of this 844% ROI may be attributable to the ability of the seller to negotiate value-added items into the sale price. Other

levers include structural additions such as structural improvements (kitchen, hardwood floors, fresh paint, repairs if any, extra parking and additions). The willingness of the buyer, the supply and demand conditions also have material impact on the 844% ROI.

Therefore, this study did not validate a claim of 80% reduction in time, as quoted by some home stagers quoting RESA. The results confirmed staged (and non-staged units) sell within 1-2 days on market and therefore a reduction of 100% is claimable, yet inaccurate—the average is a 50% reduction on market.

Additional Comments

It is noted that the sufficiency of the design is not researched in this report. Some real estate agents competing with CBTE stage the units themselves either for free or for an additional 1% of the final sale price, and the owner did not hire a professional staging firm.

The quality of furnishings was not studied in the impact of return on investment or days on market. Real estate agents, for example, provided a clause to add another 1% to the cost of the agent's fees for staging the unit. For a $500,000 home, this amounts to $5,000 and may increase or reduce the return on investment figure compared to a professional home staging crew's fees. Since it is understood that the home owner does not own the furniture and only the structure of the condo, most view staging as a visualization aid to enhance the experience of the walkthrough of the property for buyer engagement. The fee for this visualization and aid is the service provided by the owner to expedite the sale.

Therefore, it is unreasonable to believe the return on investment (impact of staging) on the final sale price would be more than the value of the fee of the service of visualization (the stager's fees). However, the emotional reaction of the buyer on the impact of staging may propel the final sale to deliver returns beyond the investment cost of staging (emotional response and capability of buyer to prefer to pay for more than the cost or value of staging, since not all buyers react logically). The return on final sale price is therefore normally limited to the upper bounds to the fees for staging services paid plus the savings in interest (opportunity cost) to having a quick sale (capital cost, maintenance fees, interest and opportunity cost).

With price as another key negotiation lever, lowering the price will also hasten the sale but with the detrimental risk of signalling inferior quality or urgency. With multiple units on MLS in one condo building, comparisons are easy (furnished or not) and price can

quickly expedite a sale. Furnishing therefore, should be used to maintain pricing to avoid cost competition between sellers in the same neighbourhood or building.

The final decision to stage a home will depend on the priority of the seller with respect to these variables:

- Supply quantity
- Demand quantity
- Competition between sellers
- Urgency or requirement to sell (opportunity cost of vacant unsold home) – seller's capital and ability to hold off until demand pressure increases
- Staging fees
- Other costs - interest rate (cost of capital, maintenance fees, interest rate)
- Home Improvements / other market property comparisons
- Quality of staging assets
- Performance of real estate agent (MLS listing vs do-it-yourself / for sale by owner), agent's fees

The findings therefore argues for the cessation of advertising claims that state staging increases the value of a home's selling price. (e.g., "staged homes sell for x% more.") There is no strong evidence staging has any material impact on the final selling price unless the furniture is also included in that sale, for a profit beyond what is normally negotiated between buyer and a seller. There are properties that are not staged, that sell for more as well. A comparison of identical properties (in the same building, at the same time) must be undertaken to verify this claim.

The increase in final sale price is attributable to the ability of the seller to negotiate (multiple offers, demand, supply, location, and other asset-related variables) that signals a quality of desirability and maintenance (particularly for resale homes). For new condos, the apparent increase in value is not legitimate because the units are may be identical.

The reduction of days on the market and the capture of reduction in expenses by the seller: interest, maintenance fees, cost of capital and opportunity cost of the capital. The value of the structure of the asset of the home (as defined by property assessment) has not changed. But the willingness of the buyer to pay more for a property in the final negotiated outcome may, or may not be

attributable to staging alone. There is also evidence that staging does not increase the value of a home. The statistical evidence does not support this argument because more than 50% of the variance from the model does not clearly draw this conclusion. It is important because if home stagers or agents advertise this promise, they may face false advertising claims for misrepresentation. Arguably, a property assessor and the local city tax valuation methodology can validate or verify this is a false claim based on assessed values (structure, comparable sales, damage, and supply conditions).

Recommendation for additional research:

- The researcher recommends that to have a more current, valid and reliable understanding on the benefits of staging, a time-series study with a data set with a sample size n>250 in a national random sample study with respect to homes and condos that are sold that are professionally staged and compared to those that are staged by agents, or do-it-yourself owners to better understand the return on investment (ROI) of the quality of staging service and the return on investment:
    - Color, pattern, brand, style (contemporary, modern, cottage, IKEA/knockdown, eclectic, country, ethnic) and value of furniture assets
    - Cost of furniture rental.
    - Paint and floor style, color matching theory application for the region (buyer/seller affinity to style)
    - Price level (%) of the home vs. furnishing assets
    - Vacant vs occupied staged units (show-readiness, cleanliness, odours, room temperature)
- The researcher further recommends that research should be conducted in a declining or correcting market and understand the impact of staging in a correcting (bubble) market with falling prices to understand the impact of staging in delivering better returns on investment (reducing the cost of capital, interest and mortgage payments) and the moderating variables of staging as a standard practice (everyone stages, so I should stage too to sell) vs. reducing the price (stratified against low cost and high value properties).
- The research recommends that to determine the range (minimum, maximum, and mean) cost savings and return on investment (ROI) attributable to staging and the impact of reducing time on market: specifically, the cost of capital (loan interest), capital opportunity cost (money used elsewhere earning a higher rate of return), mortgage payment reduction, utilities and insurance, taxes, maintenance fee savings for condos, common elements expenses, and property taxes. The 2010 RESA report underestimates these expenses and reduces the estimation savings return on investment (ROI) from staging.

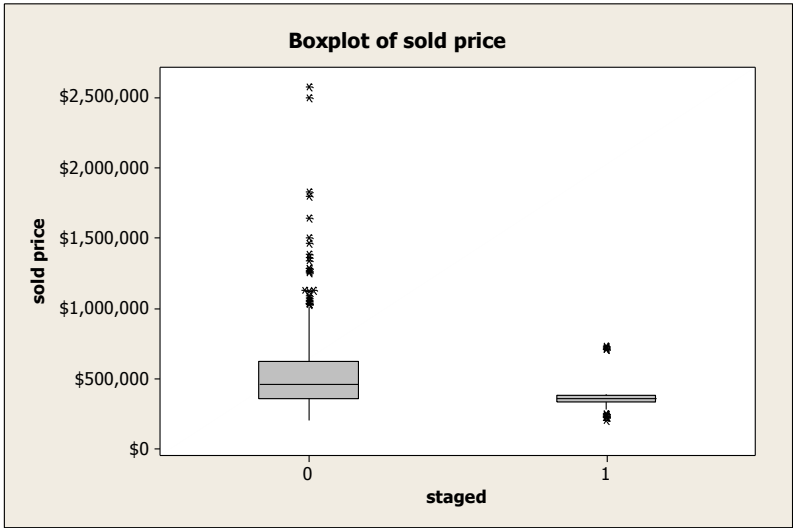
Descriptive Statistics

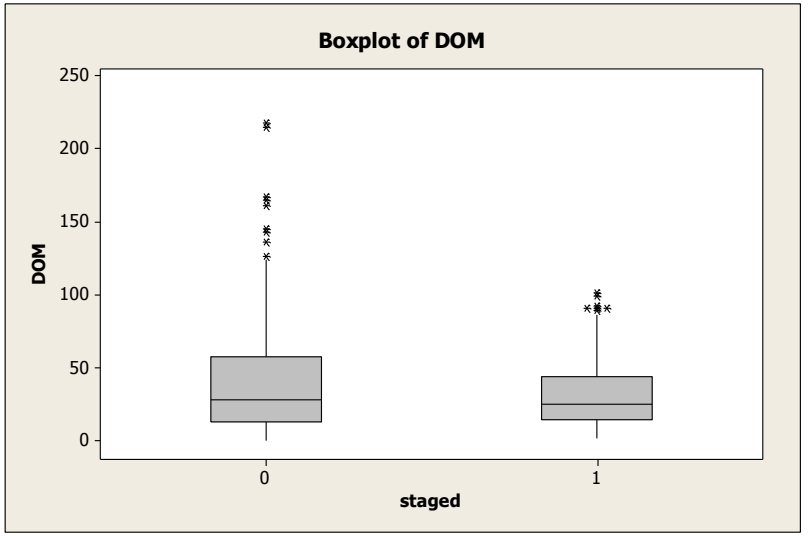
Descriptive Statistics: staged, taxes, DOM, list, sold price, diff, diff%

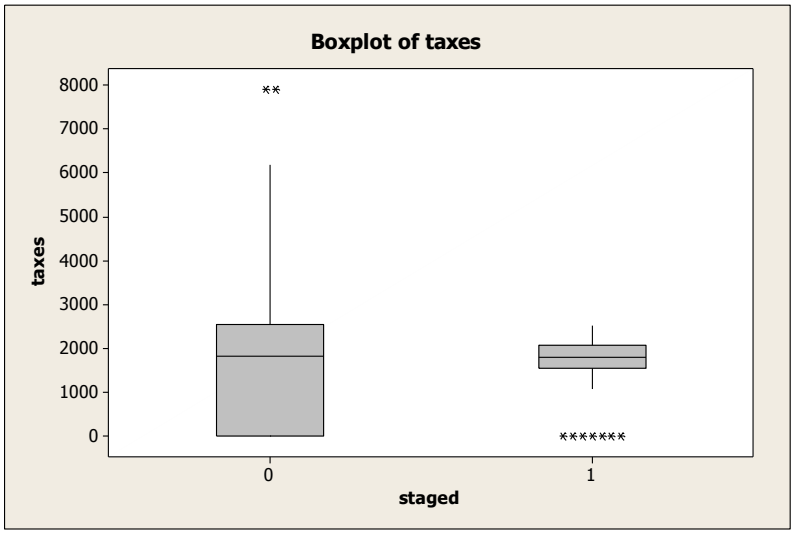
Variable	N	N*	Mean	SE Mean	StDev	Minimum	Q1	Median	Q3
staged	670	0	0.1567	0.0141	0.3638	0.0000	0.0000	0.0000	0.0000
taxes	665	5	1597.5	51.3	1322.0	0.0	0.0	1820.0	2436.0
DOM	670	0	37.20	1.25	32.32	0.00	13.00	28.00	55.00
list	670	0	431333	6712	173726	199900	349875	384700	480724
sold price	442	228	518086	13788	289873	199900	350000	436995	589900
diff	442	228	-73376	8757	184109	-900000	0	0	6825
diff%	442	228	-15.35	1.75	36.82	-114.45	0.00	0.00	1.78

Variable	Maximum
staged	1.0000
taxes	7913.4
DOM	218.00
list	2575000
sold price	2575000
diff	255100
diff%	25.77

This data table shows roughly 670 units were examined (dataset) and of those 442 were sold. The Max DOM was 218 days, and Min 1 day.



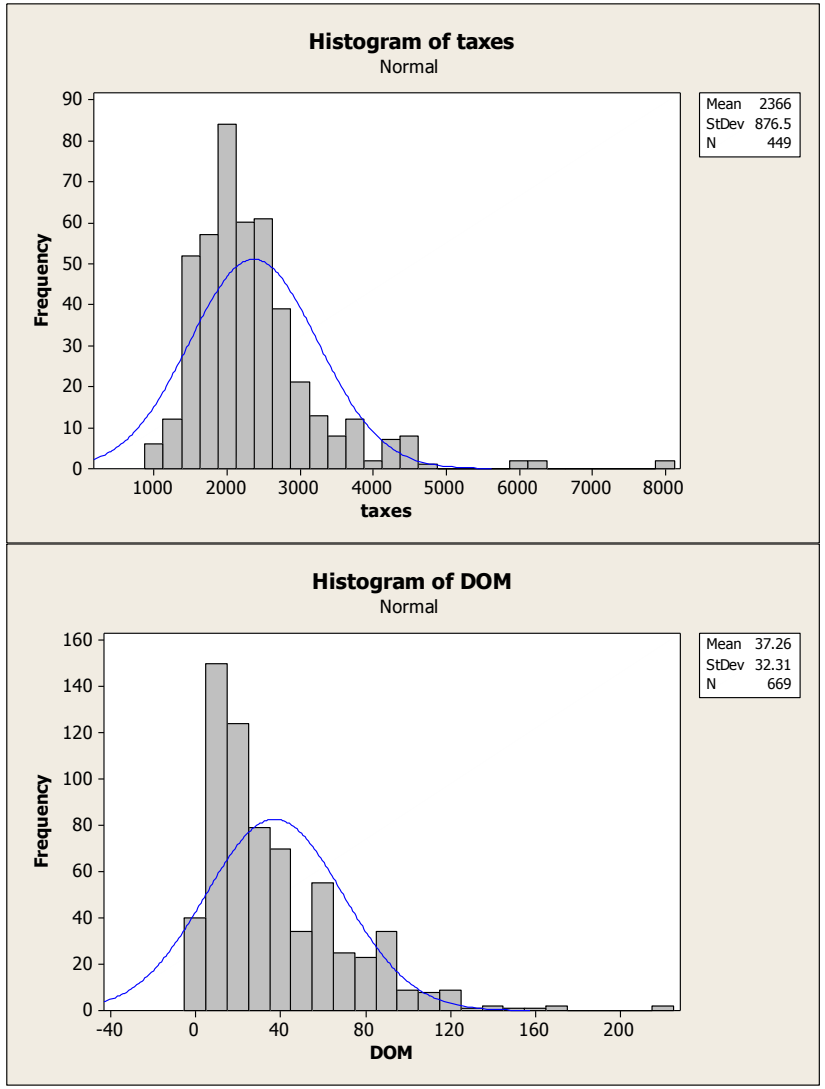




The first boxplot of sold price compares staged (1) vs. non-staged (0) units and the range in sales prices. Typically furnished/staged units ranged under $500,000.

The second graphic boxplot compared Days on Market (DOM) with staged units having overall lower DOM than non-staged units (with a higher 3rd quartile range upper limit.

The boxplot of taxes compares staged units with non-staged and demonstrates that staged units have a finite range (with taxes representing a floor space/valuation).



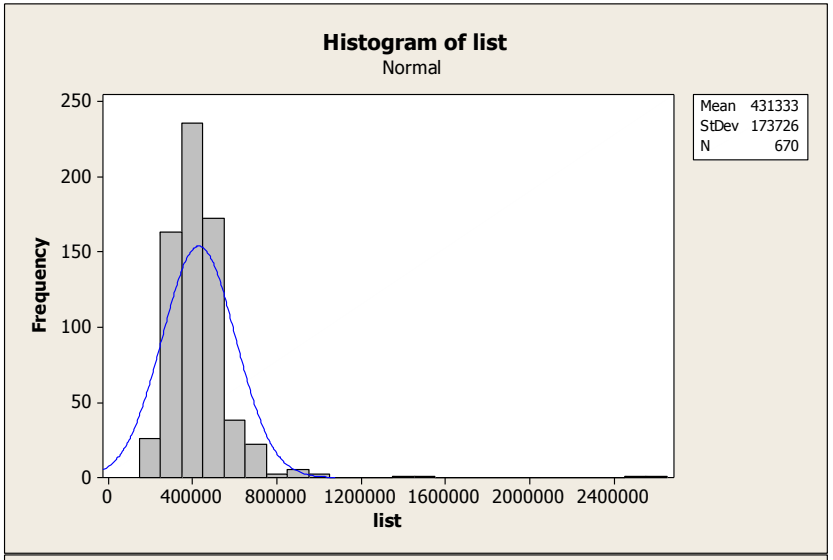
The mean taxes paid per month is $2,366 and representative of the valuation (and to some degree the square footage) of the property in liberty village.

Std Dev – 876.5
N = 449

This histogram shows DOM is negatively skewed with average DOM of 37.26 days

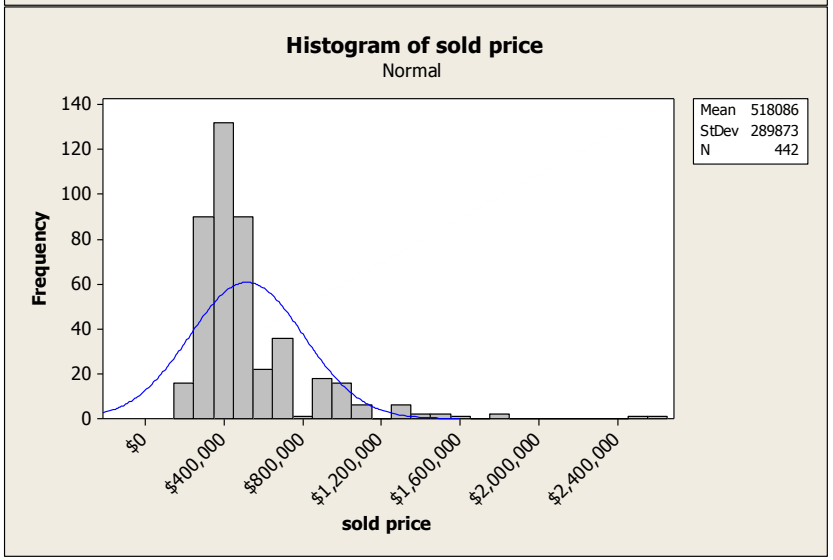
Most properties sell within the first 1-2 weeks and then trail off (long tail effect) through to 80 days, then 120.

Mean+1z = 70 days
Mean+2zs = 102 days (laggards)
Exceptions 3zs and beyond exist.



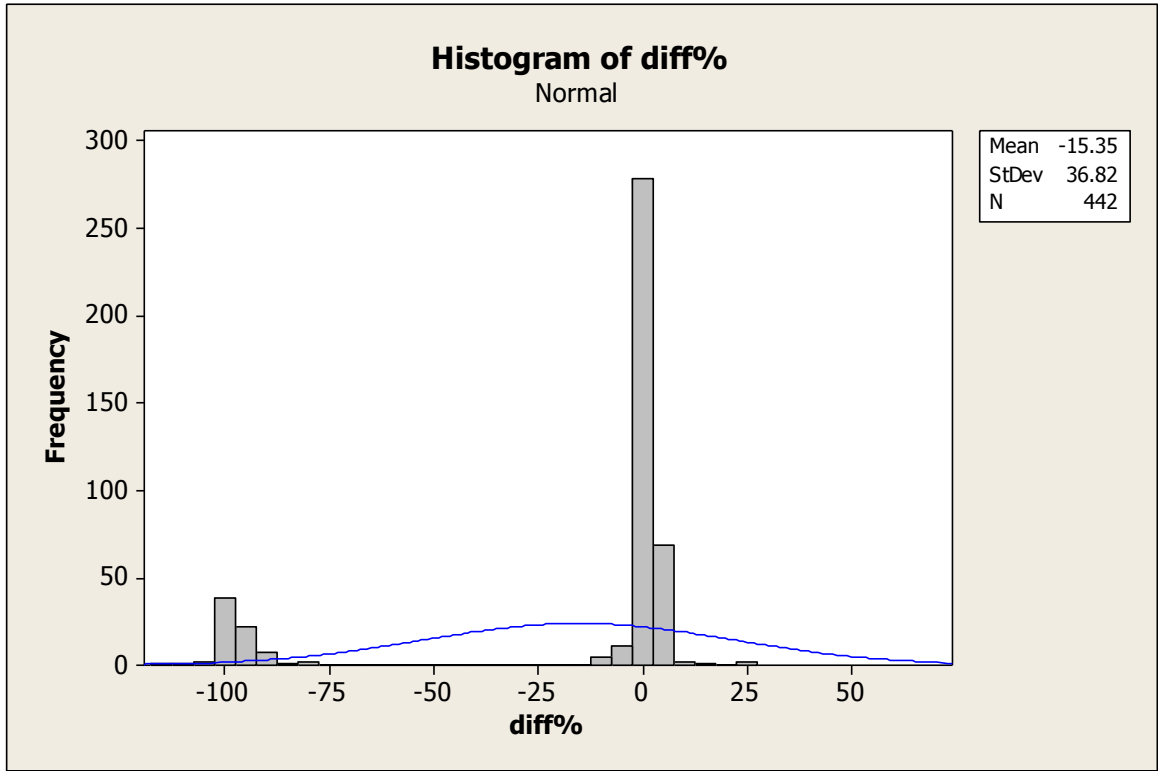
Histogram of list prices averages $431,333 with 670 units studied.

It has a normal distribution.
With StdDev of $173,726.



The final sales "sold" price is negatively skewed with some units increasing in value due to upgrades and renovations. This matches the expectations of assignment sales and flipping, with the change mainly in condos valued at 500,000 to 750,000.

Mean $518,086
Std Dev $289,873
N=442



The difference in percentage between the list and final 'sold' price is normal within +/- 5% Most fall within 0% and 50-75 occurrences fall within a 3-5% savings off list.

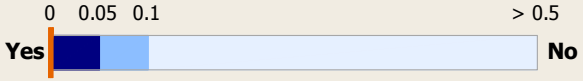
A few units sold for above asking price +/-5% (count of approximately 5-10 units). By and large the list price was also the finale sales price within a few percentage points (under 5%) of the list or within $0 to $21,550.

The leftmost region of -100% represents the unsold units and should be discounted.

Regression for sold price vs taxes
Summary Report

Y: sold price
X: taxes

Is there a relationship between Y and X?

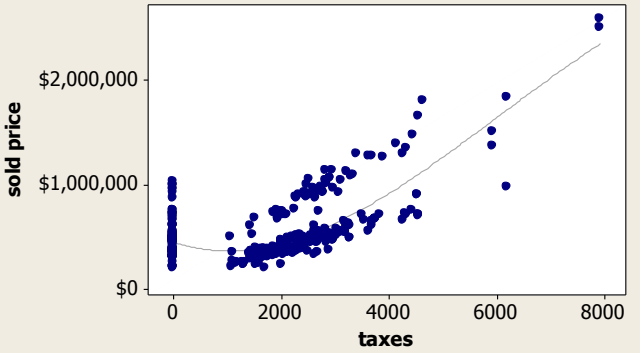


P = 0.000

The relationship between sold price and taxes is statistically significant (p < 0.05).

Fitted Line Plot for Cubic Model

Y = 445899 - 170.0 X + 0.09205 X**2 - 0.000005 X**3



% of variation accounted for by model

R-sq (adj) = 55.81%

55.81% of the variation in sold price can be accounted for by the regression model.

Comments

The fitted equation for the cubic model that describes the relationship between Y and X is:

Y = 445899 - 170.0 X + 0.09205 X**2 - 0.000005 X**3

If the model fits the data well, this equation can be used to predict sold price for a value of taxes, or find the settings for taxes that correspond to a desired value or range of values for sold price.

A statistically significant relationship does not imply that X causes Y.

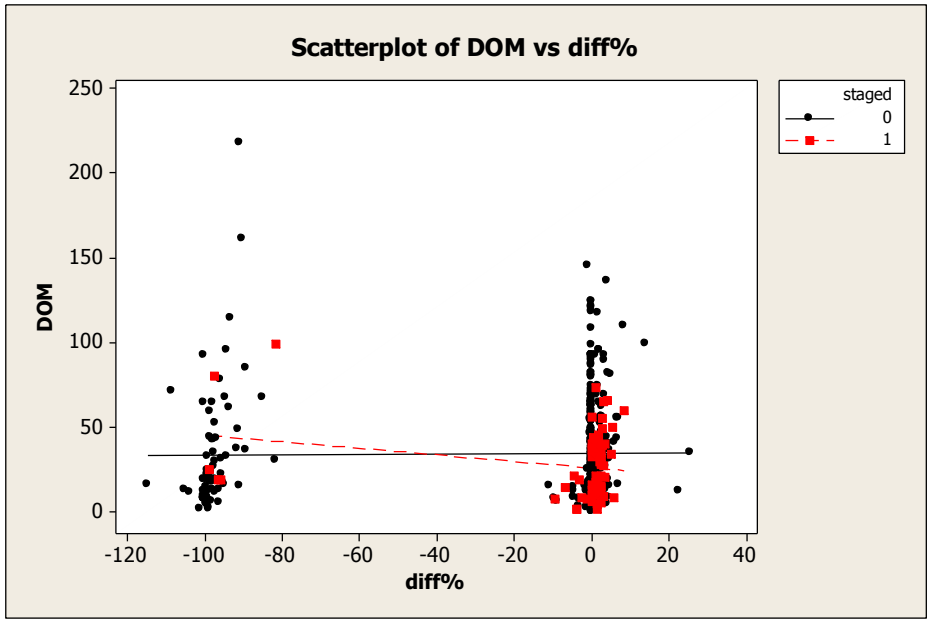
55.81% of the variation in sold price is accounted, this formula has limited accuracy by itself to predict final sale price without other explanations.

Other factors that affect sale price may include time of listing, willingness of seller to sell, staging, supply conditions, negotiation skills of the buyer and seller, and other market variables. It is nonetheless, a good start to frame a price range.

The variation in final sale price can be controlled by the seller, by roughly to 50% through home improvements, staging, timing the listing, location selection, agency or broker "value-add"s, negotiation strategy, and other levers.

Impact of Staging

Days on Market (DOM)



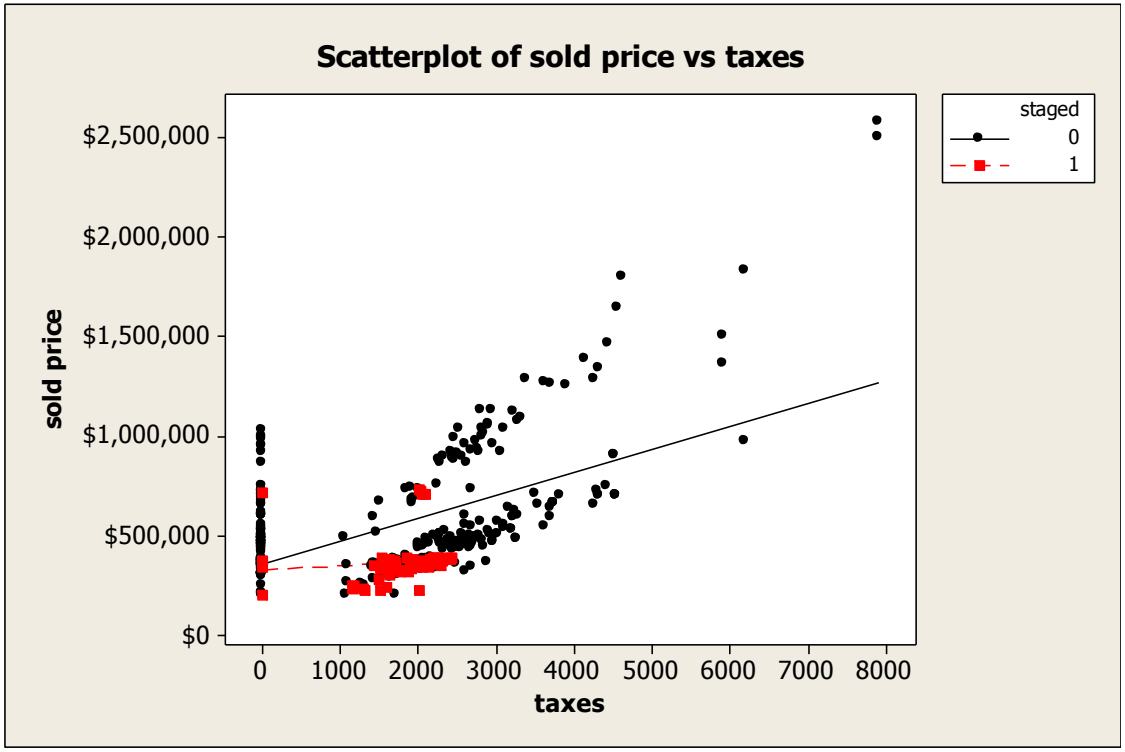
This scatterplot of days on market (DOM) vs. Difference(%) – the difference in percentage terms between the list and finale sale price) for staged and non-staged properties clearly shows a narrowing and reduction of days on market for staged properties vs. non-staged which tends to have a wide range of DOM from 0 to 150 days This reduction in range from 150 to about 75 days or 50% is confirmed for the data at liberty village from third party research from the national association of association of realtors. This analysis does not analyze the quality or 'sufficiency' of staging, other than that staging or furnishing is performed. That is, the impact of the staging (quality, color, furniture design, cluttering) have additional impact in perceptions and valuation or reducing DOM inasmuch an indication that the owner is willing to sell and negotiate as a 'signal' to the buyer.

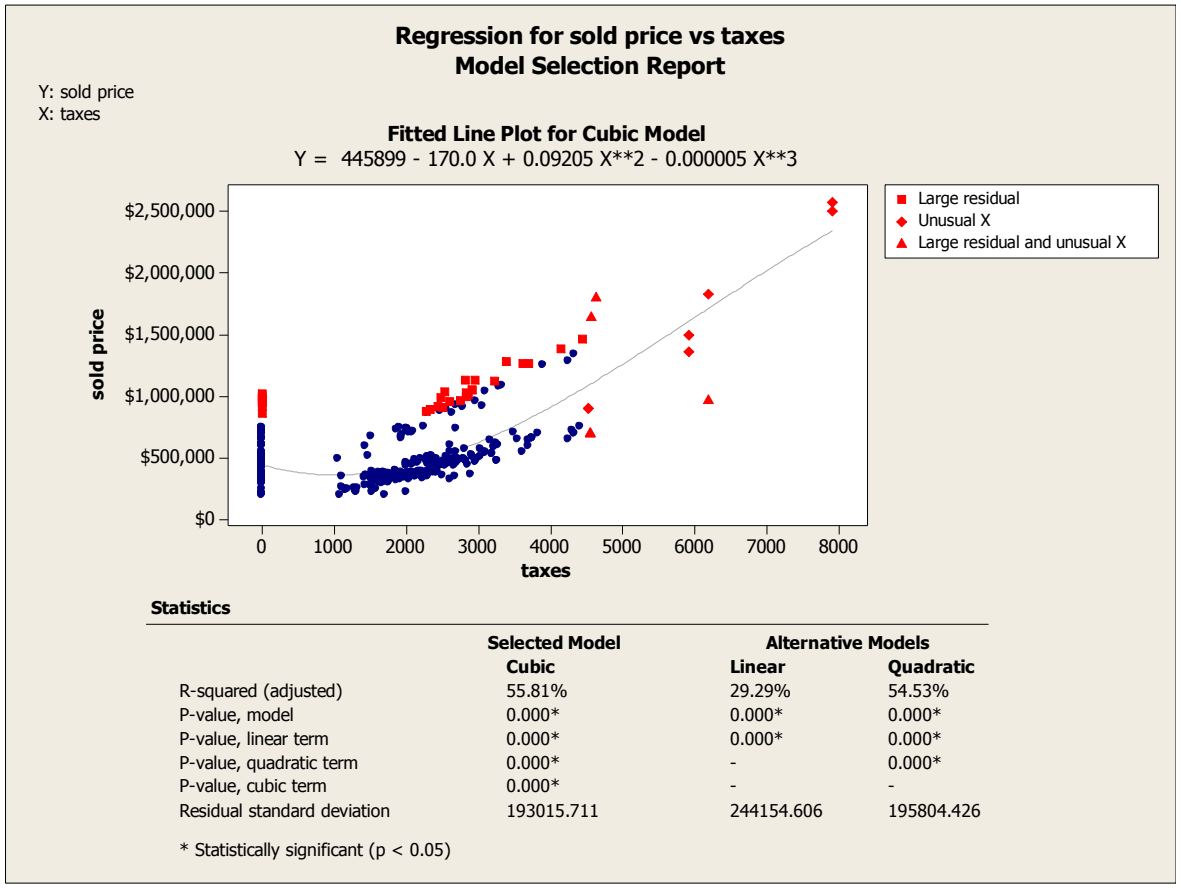
- -100% group represents the unsold condos (red staged)
- 0% diff is largely the group of sold units with red=staged (black=non-staged).

For unsold properties (where diff% is -100%) which indicates the property is unsold, a much higher percentage of properties are non-staged, indicating that to prepare a condo for sale, staging or furnishing the condo has a material impact (statistical significance). Furnishing, therefore is a clear feature and signal to buyers for readiness to sell and statistically significant.

Sold Price vs. Taxes

A statistically significant relationship exists between the finale sale price and taxes (sold price is negotiated and based on square footage and valuation of property) – two groups exist - 1 bedrooms and 2 bedrooms and this may be the clustering of two patterns related to the price and taxes. No conclusion can be made between staged properties vs. non-staged units with reference to "sold price" (or the impact of staging on increasing the final sale price). Additional analysis is required for identical properties that are sold staged and non-staged. There appears at first glance, little impact or difference between the groups except that unfurnished units cover a larger range of property portfolio.





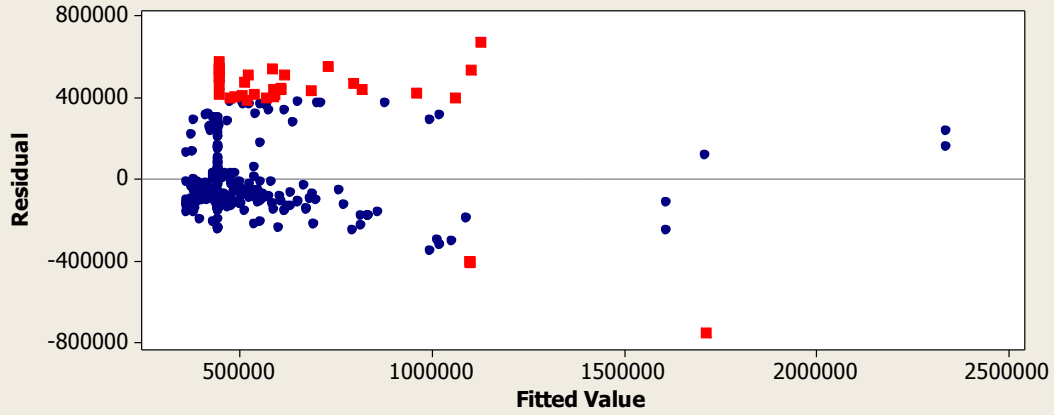
To predict the value of final sale price, use the formula, as a general guide to initially price your condo/property.

1. **Predicted final sale price - $445,899 – 170 * (taxes) + .09205 * (taxes)^2 - .000005 * (taxes)^3**
2. **Staging your property will reduce the sales cycle by up to 50% - saving mortgage interest, maintenance and lost income opportunity.**
3. **Negotiations – reduce the difference between list and finale price to within 93% to 97% of asking price ($21,550) in this dataset.**

Regression for sold price vs taxes
Diagnostic Report 1

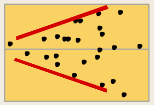
Residuals vs Fitted Values

Look for large residuals (marked in red) and patterns.



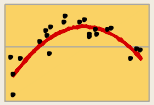
Examples of patterns that may indicate problems with the fit of the model:

Unequal variation



Uneven variability, such as when the spread of points increases as the fitted values increase. If the unequal variation is severe, get help to address the problem.

Strong curvature

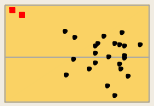


Curve in the data that is not well explained by the regression model. If you are already using the best fitting model, get help to address the problem.

Clusters

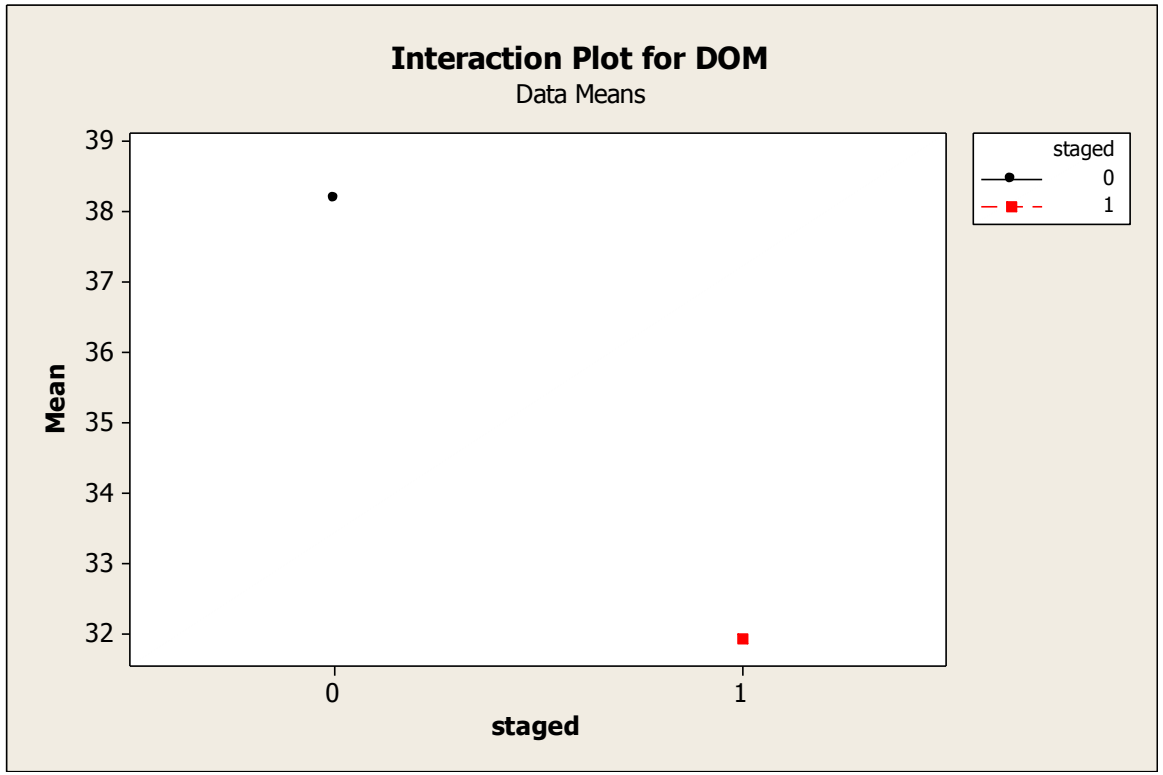
Groups of points that suggest there may be important X variables that were not included in the regression model. Get help to address the problem.

Large residuals



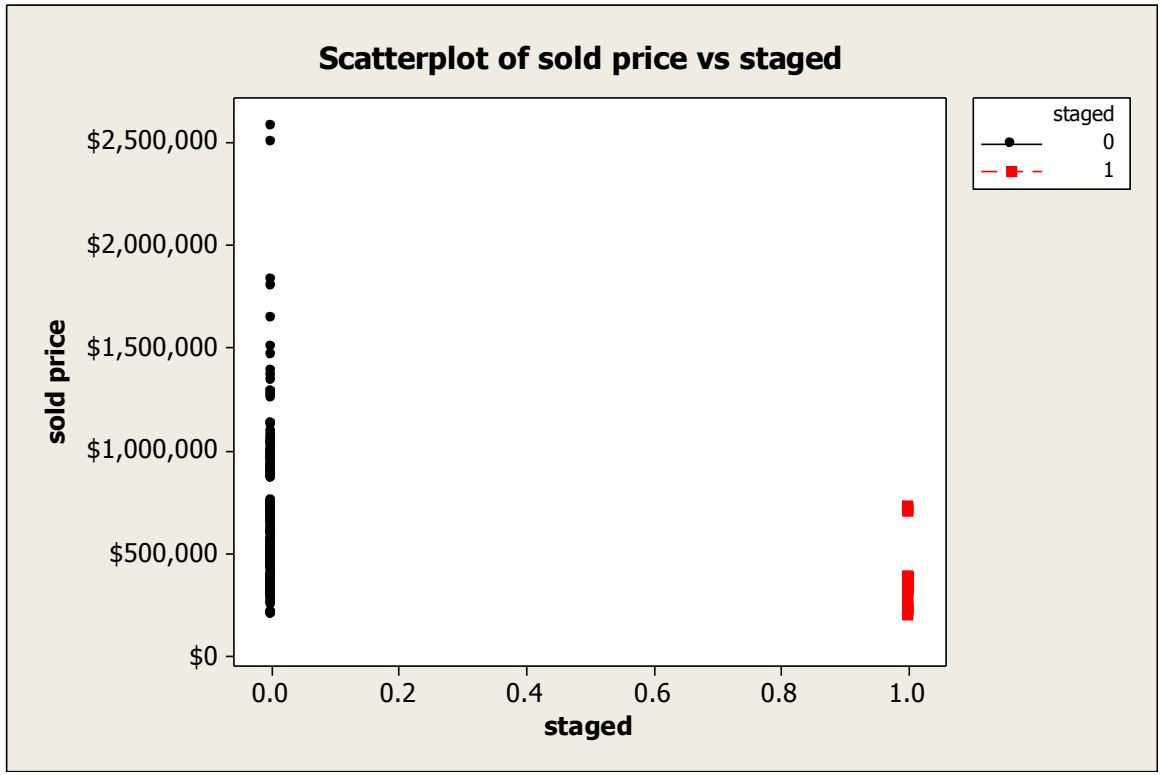
Points that are not well fit by the model. Try to understand why the points are unusual. Correct measurement or data entry errors and consider removing data that have special causes.

This control chart identifies specific data that has high error.



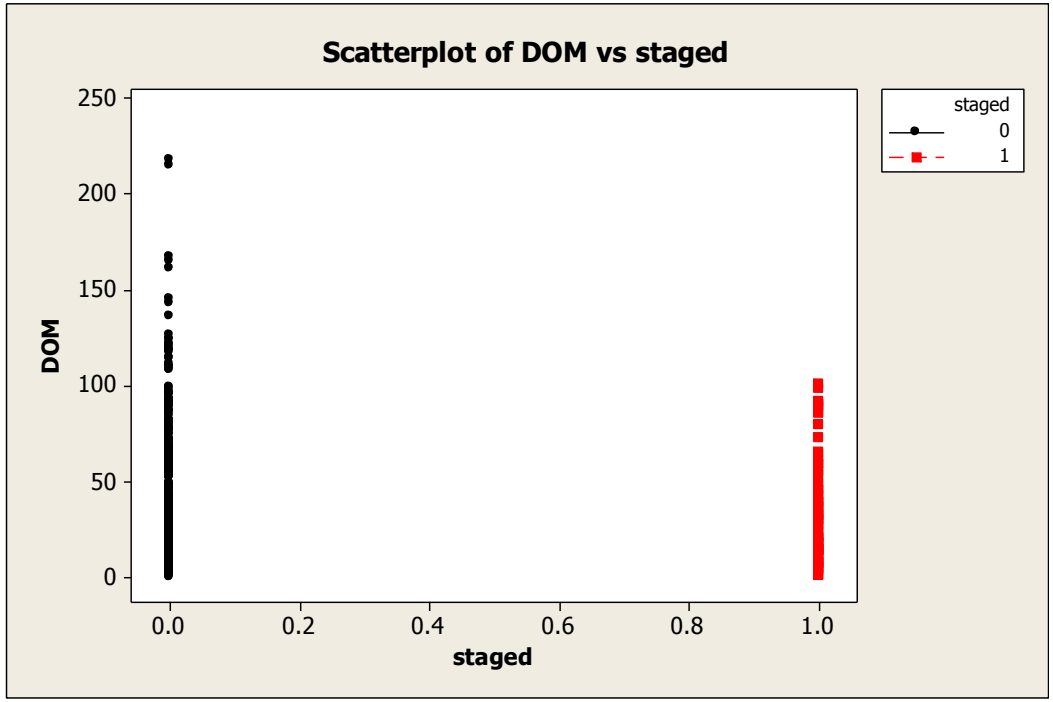
The average total time of DOM is reduced from 38 days to 32 days on average primarily for entry-level properties. However, the entire range of properties DOM is reduced by 50%. (0=not staged; 1= staged).

And, this relationship is confirmed by this scatterplot (staged = 1; not staged/furnished = 0)



Further confirmation required upon analysis of all data required for high end units (staged vs. not furnished/staged) to be completed.

The next chart confirms that staging does have a material impact on reducing the range of DOM, possibly as a signal to a buyer that the owner is ready and willing to sell the condo and to enter into more serious negotiations. Also, an implied signal for staging to buyers that non-staged / unfurnished unit owners can wait longer and the buyer may believe they may be less serious or willing to negotiate.



To confirm this hypothesis, further research should be conducted through psychometric and buyer surveys for 'readiness or perceptions' of properties.