2008-04-07

# Rubberball: Survey analysis and recommendations

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This is a collection of marketing research case studies of local companies prepared by BYU graduate students.

2008

# Rubberball

## Survey Analysis and Recommendations

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Marketing Research

4/7/2008

**Executive Summary**

The first question or concern surrounding the Rubberball analysis is the addition of new products. Rubberball has been considering adding products such as stock fonts or video. To assess this we asked a simple question about how likely a consumer is to buy additional products. We they ran a simple means test on the answers, and the recommendations became clear. There are two products that Rubberball should continue to look into. First is stock illustrations followed by stock fonts. The mean of these two products was far above all others.

Associated with Rubberballs central question, we also assessed the model and photo type. These two tests were performed by a simple means test on SPSS 15. First, we found three model types that are preferable to consumers. The three model types are Caucasian, female, and adult. Consumers are more likely to purchase images that include one or more of the above model types. In regard to photo type, two points became extremely clear. Caricatures are of no value to consumers! But, images that portrayed lifestyle are of great interest. Continue to produce or increase the number of images that are contained in the category of lifestyle.

The common theme running between the two segments in our cluster analysis is the issue of speed of purchase. While the first segment is typically more interested in exclusivity, creativity and price, both segments want the purchasing process to move as quickly as possible. That being said, our recommendation is to improve the relevancy of images to the search inquiry by better filtering out unrelated images and improving the ease of use/navigation of the website as much as possible. This will make the purchasing process faster and satisfy a need of both segments. Some possible solutions to this are improving the labeling and/or categorization of images, and offering a "search within results" feature (which would help purchasers greatly narrow their search time). As for creativity/originality, it should be noted that in the 4 company comparison section of the survey, respondents rated Rubberball the highest in creativity and originality. Maintaining and further improving this reputation will be a positive differentiator and competitive advantage for Rubberball.

The following recommendations are based on the logistic regression analysis performed to determine what factors increase the probability that any given consumer will make their stock photography purchase directly off of the Rubberball website, as opposed to some other competing supplier. The analysis has shown that both years of experience and budget amount allocated are positively correlated with purchase probability. Rubberball should target its marketing towards those consumers with large budgets on hand. This will increase their direct online sale revenues. Rubberball must also increase its brand awareness, because new buyers in the industry are not aware of Rubberball and are currently purchasing much less frequently than the average consumer.

After performing a factor analysis, we recommend that Rubberball decide which place in the market it wants to be in. We see two viable options:

1) Rubberball could focus on one or more features in order to compete with Getty and other market leaders.

2) Rubberball could focus on selling more images by making the price seem more acceptable to the customer.

**Introduction**

Rubberball is a stock photography company based out of Orem, Utah. They sell high quality images to art directors, graphic designers and others who are interested in stock photography images. Rubberball was first founded in 1995 by Mark Andersen and Alan Bailey. It was one of the first stock photography companies, but the market has since become extremely saturated. Rubberball's sales come from both direct and distribution sales channels, but the majority of their business comes through distribution of their images on other websites. In these situations Rubberball receives a royalty percentage-of-sale on each of their images sold. Their primary distributor and chief source of revenue is Getty Images. Getty is the biggest name in the industry, and is currently the most-purchased-from stock photography website in the market.

The stock photography industry is unique in that many of the companies help each other through distributing one another's photos. For example, photos that are taken by Rubberball could possibly be sold through any of the following main players/competitors: Getty Images, Jupiterimages.com, Corbis.com, Veer.com, Alamy.com, Imageclick.com, and Istockphoto.com. The downside to distributing images in this fashion is that the margins are a lot smaller than if the images were to be purchased directly from the Rubberball website. In order to increase revenue and continue to grow, Rubberball is seeking to differentiate themselves in a positive way that will encourage more direct traffic to their website.

The survey was designed to assist Rubberball with the following questions/situations:

1. Rubberball would like to stand out from other companies in a positive way that will make their website and the process of buying their images preferable to any other stock photography company. This question is central to Rubberball's needs!

2. Three years ago, Rubberball was thought to have been bought out by Getty Images. This unique opportunity has given Rubberball an opportunity to re-brand itself and create a new image that will result in higher consumer preference.

3. Rubberball is also considering expanding into new markets like stock audio, stock video and stock illustrations.

**Survey Design and Administration**

After meeting with Rubberball to discover their needs as well as understand the background of the company, we designed a 26 question survey. The survey includes multiple choice questions, short answer questions, and rank order questions. The survey was then distributed through three different channels:

1. An email was sent to a list of hundreds of people (provided by Rubberball)
2. The survey was posted on Facebook advertising group called "I'm in Advertising…Hell yeah!" having over 20,000 members
3. The survey link was posted on the Rubberball homepage

At the time of closing, we had 375 responses to the survey that was originally posted.

The following pages describe the analysis of the data collected from the survey.

**MODEL AND PICTURE TYPES**

The analysis performed on the questions regarding model and picture type (Questions 9 and 11 respectively) was a means test. This is based on a descriptive output from SPSS 15. Based on the means, we've made some direct recommendations drawn from the data of question 9. With a mean of 2.21 (appendix A), Caricatures registered as the least likely to be purchased by users of the Rubberball website. Conversely, with a mean of 5.44 (appendix A), *lifestyle* pictures are by far the most likely to be purchased of all of the image types. No other image type had a mean in the 5's.

For question 11 regarding model types, a means test was run as well through SPSS 15. In this test, the majority vote was easy to see as well. There are three model types that have an average mean that is far above all others. The top three model types in ranking of highest mean are Caucasians (4.08), Females (4.07), and Adults (3.99) (appendix A).

The above two questions provide simple data that is useful for better catering to the needs of those that visit the Rubberball website. By increasing the number of images in the lifestyle category,

you will improve the consumer attitude toward Rubberball's website and the perception of value offered by Rubberball. In addition, increasing the images with adult Caucasian females will also meet a market demand.

**ADDITION OF NEW PRODUCTS**

The recommendations for the addition of new products are based on a means test produced by SPSS 15. Out of the five options, stock illustrations are by the far the most likely to be purchased if added to the Rubberball website. Stock illustrations had a mean of 3.40 (appendix A). This was followed closely by stock fonts at 3.37. On the other hand, stock HD footage and stock music were the least likely to be purchased if added to the Rubberball website. These two had means of 2.52 and 2.66 respectively.

To improve the Rubberball website, the addition of stock illustrations and stock fonts is likely to produce positive results. This would, in turn, help improve the brand image of Rubberball.

**Cluster, K-means and Crosstab Analysis**

With the main purpose of the survey being to find out how to best improve the website, we decided to run a cluster analysis on the data relating to website aspects and characteristics. The data was taken from Question 15 in the survey which asked: "How important to you are each of the following in deciding which stock photography website you purchase from?" The categories they were asked to give answers to are shown in the table of results below (in order of importance according to mean of results):

| # | Question | Not at All | Somewhat Important | Important | Very Important | Responses | Mean |
|---|---|---|---|---|---|---|---|
| 3 | Relevance of images to your search inquiry | 4 | 10 | 88 | 200 | 302 | 3.6 |
| 5 | Ease of use | 5 | 16 | 78 | 203 | 302 | 3.59 |
| 8 | Originality or creativity of images | 7 | 35 | 90 | 170 | 302 | 3.4 |
| 2 | Price of images | 12 | 34 | 108 | 148 | 302 | 3.3 |
| 4 | Number of relevant images | 6 | 38 | 118 | 140 | 302 | 3.3 |
| 9 | Available sizes of an image | 6 | 35 | 126 | 135 | 302 | 3.29 |
| 6 | Speed of purchase | 11 | 53 | 111 | 127 | 302 | 3.17 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 10 | Availability of LIGHTBOX | 32 | 94 | 102 | 74 | 302 | 2.72 |
| 7 | Exclusive rights to pictures | 80 | 116 | 53 | 53 | 302 | 2.26 |
| 1 | Name Recognition/Reputation | 116 | 107 | 54 | 25 | 302 | 1.96 |

By looking at the means of the items above, we noticed that relevance of images, ease of use, and creativity/originality were the three most important items overall. However, we wanted to see if the same things are equally important to everyone that buys stock photography, or if different things matter to different people. The purpose of a cluster analysis is to see how many, if any, different segments exist and to determine the most feasible number of segments that Rubberball can reasonably direct their efforts toward. We input the 302 responses to the ten different items into a cluster analysis to create a dendrogram showing the different clusters/segment possibilities. (See Appendix B)

The more segments a company tries to please, the more complicated the marketing efforts and logistics become. Looking at the cluster data, a two segment solution appears to be the best fit. Further segmentation would only reduce a small amount of market preference error and make it increasingly difficult to cater to a larger number of segments. We ran a K-means analysis on the data for the two clusters along with a crosstabs test to see how robust and sensitive the data was. Reclassification of the cluster categorization was minimal, thus affirming the robustness of the segmentation. (See Appendix B Fig. 2) The two segments can best be characterized as follows:

The first segment is very sensitive to 6 of the 10 items in the question. This segment can be classified as the bargain shoppers. They are highly price sensitive and minimally sensitive to brand name. They don't want to waste time filtering through unrelated images or getting lost and confused on the website, but they are still very interested in exclusivity and creativity. Although brand sensitivity is minimal, they may have some brand preference due to past experience with stock photography sites. (See Appendix B Fig. 3)

For the second segment the single most important point for them is the speed of purchase. All other aspects are still considered important to them, but they are generally less sensitive to price and not at all sensitive to brand. This segment would seem to represent those who are highly time sensitive. They just want the overall process to be as quick as possible and money is not as big of an issue. (See Appendix B Fig. 3)

The common most important theme running between these two segments is the issue of speed of purchase. While the first segment is typically more interested in exclusivity, creativity and price, both segments want the purchasing process to move as quickly as possible.

That being said, our recommendation is to improve the relevancy of images to the search inquiry by better filtering out unrelated images and improving the ease of use/navigation of the website as much as possible. This will make the purchasing process faster and satisfy a need of both segments. Some possible solutions to this are improving the labeling and/or categorization of images, and offering a "search within results" feature (which would help them greatly narrow their search time). As for creativity/originality, it should be noted that in the 4 company comparison section of the survey, respondents rated Rubberball the highest in creativity and originality. Maintaining and further improving this reputation will be a positive differentiator and competitive advantage for Rubberball.

**Logistic Regression Analysis**

The following section will discuss the logistic regression analysis performed on questions 2-3, 8, 11 and 24 of the Qualtrics survey performed on behalf of Rubberball along with its process, results, and recommendations. (Any relative graphs or equations may be found in Appendix C.) A logistic regression is used to determine the correlation between various independent factors and a dependent variable that only has two measures, or a binary outcome. In this case, a logistic regression was run to determine how various factors from questions 2-4 and 11 could predict the probability that a purchase would be made on the website of Rubberball according to the actual data from question 8. A logistic regression limits the output so that it falls between the range of 0 and 1, and the equation has the following format:

$$p_i = \frac{e^{\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_k X_{ki}}}{1 + e^{\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_k X_{ki}}}$$

Based on questions 7 and 13 it is clear that Rubberball has a problem obtaining direct sales from their website. However, their percentages are similar to industry leaders, such as Getty and Istock,

when it comes to company awareness. The percentage of people who had previously heard of Rubberball was 77 percent, which is higher than Getty and lower than Istock. The problem is clearly seen in the next question. Only 20% of the respondents have actually purchased directly from the Rubberball website. This percentage is much lower than the 86% and 73% that purchased from Getty and Istock, respectively. Rubberball knew this was an issue and wanted to discover the underlying factors that discouraged consumers from purchasing from their website.

Due to the lack of online purchases as seen from above, we decided to perform a logistic analysis. We felt this test was appropriate in order to determine what factors increase the probability of purchase from of Rubberball's website. A logistic analysis was run on two separate questions and the outputs and corresponding equations are found in Appendix C. (Also, it should be noted that the hit rates for both of these tests were well above the required maximum criterion, meaning that the tests were a good measure of what they were meant to test) .

First, each respondent's opinion on the factors from question 11 were used as the independent variables, and then they were compared against whether or not the respondent actually has purchased from Rubberball's website before based on question 8. For example, someone who rated creativity as 'very important' would have a fairly high probability of purchasing from Rubberball's website. The results of the regression were mixed. The only variable that was truly significant was creativity (see Fig. 1-C). Its P-value was significant at a confidence interval of over 95%. Creativity also had the greatest coefficient, meaning that it had the greatest effect on increasing purchasing probability. The other four variables from the equation in Appendix C Fig. 2 were only significant at the 70% confidence interval. Reputation and exclusive rights both had a negative correlation with purchasing probability. In other words, people who rated reputation and exclusive rights to images as important were very unlikely to purchase from Rubberball.

The next logistic regression was much more significant (see Fig. 3-C). Both how long people have been purchasing, and how much money they spend per year were significant well above the 95% confidence interval. The equation found in Appendix C (Fig. 4) is a good predictor of the purchasing probability. The more years someone has in the industry, then the more likely they are to purchase from Rubberball's website. The same positive correlation exists between how much the company spends each year on stock photography.

The following recommendations are based on the logistic regression analysis performed to determine what factors increase the probability that any given consumer will make their stock photography purchase directly off of the Rubberball website, as opposed to some other competing supplier. After looking at the data from Appendix C, Rubberball should focus on increasing the amount of creativity that a given consumer will perceive exists on their website and among their photographs. The greatest way that Rubberball can increase their online purchases is by increasing the amount of consumers that see creativity as important. These consumers must consistently see a high degree of creativity on the Rubberball website.

The second recommendation has to do more with exactly who is more likely to buy from Rubberball. The analysis has shown that both years of experience and budget amount allocated are positively correlated with purchase probability. Rubberball should target its marketing towards those consumers with large budgets on hand. This will increase their direct online sale revenues. Rubberball must also increase its brand awareness, because new buyers in the industry are not aware of Rubberball and are currently purchasing much less frequently.

**Factor Analysis**

"Getty Images is a popular stock photography website that sells many of Rubberball's images. If you have visited their site before, from what you remember please rate Getty Images in the following categories on a scale of 1-7 (seven meaning Getty does it well). "

This question was created in order to build a perceptual map of how Rubberball compares to some of its competitors. Rubberball wanted to discover its perceived place in the mind of the consumer relative to other stock photography companies. We chose three other stock photography companies in order to get a better picture of the perceived market. We selected Getty because it is the market leader and seen as the standard. We selected iStock because Rubberball is particularly concerned about the business it is taking due to its inexpensive photos. Lastly, we selected Jupiter because it is a median range company with some similarities to Rubberball.

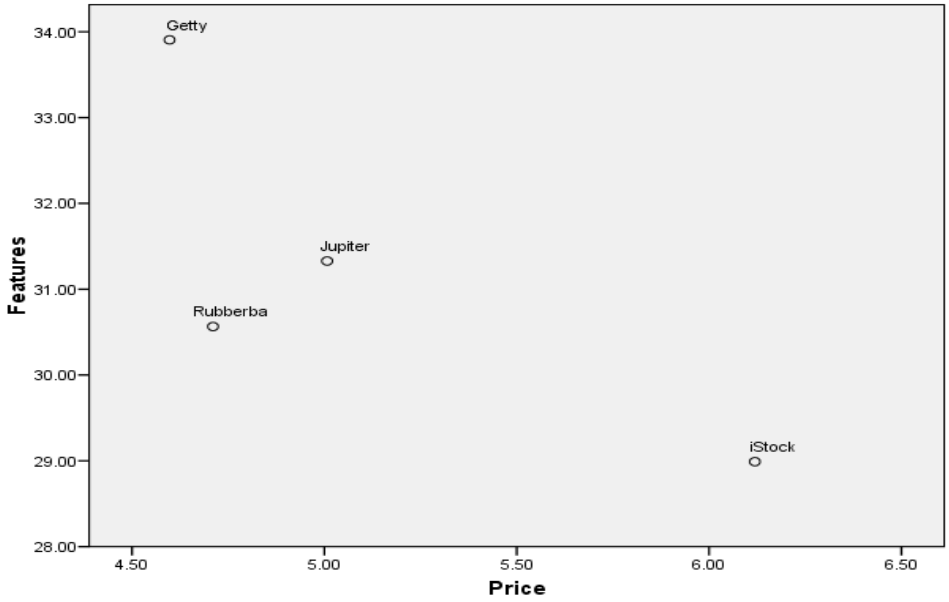
In the factor analysis, it is important to determine what components or constructs are significant and make a change to the perception of a customer. We selected seven company attributes that

Rubberball indicated were important with stock photography websites: Search Capability, Sufficient Image Library, Acceptable Price, Image Quality, Image Variety, Creative/Edgy, and Ease of User-interface.

As shown in the appendix, most of the website features seem to correlate to each other, particularly the image categories. Price, however, is a distinct feature and did not show correlation with the other features. Ease of use and creativity didn't correlate as significantly as the others. Through the use of statistical analysis software, we were able to show the two main components which accounted for 75 percent of the total variance. The two components are shown below:

| | Component | |
|---|---|---|
| | 1 | 2 |
| SearchCapability | .720 | .434 |
| ImageLibrary | .854 | .093 |
| Price | .026 | .943 |
| ImageQual | .879 | .077 |
| ImageVar | .900 | .047 |
| Creativity | .812 | .101 |
| EaseofUse | .669 | .471 |

All of the features fall into component 1 except price. It seems that most consumers don't group high quality website features with acceptable price and understand that better website features come with a premium. Because it was the lowest, it would be interesting to see the effect of removing ease of use as one of the included factors in component 1. By creating these two constructs, we can see "higher-level" factors and what features correlate to each other and get a clearer interpretation. We computed these two factors and then compared their means. With the means of the two factors, we could create a perceptual map according to these two components. The graph below shows the perceptual map of Getty, iStock, Jupiter, and Rubberball:




From this analysis, we see that customers perceive Rubberball's website functionality to be about average relative to other companies. Rubberball's price is perceived to be a little more than average. Both Getty and iStock have a distinct market presence. Getty is the market leader with the highest perceived features and a premium on the price. iStock is perceived to have the lowest website features but the most acceptable price. Rubberball is perceived at about the same price as Getty, yet Getty seems to resonate to consumers with a higher website quality and functionality.

We recommend that Rubberball decide which place in the market it wants to have. We see two viable options.

3) Rubberball could focus on one or more features in order to compete with Getty and other market leaders.
4) Rubberball could focus on selling more images by making the price seem more acceptable to the customer.

**Conclusion**

Rubberball has a unique opportunity to re-brand itself that most companies may not get. The data collected from the survey and the analysis of that data suggests that there are market

needs that are not being met in search functionality and ease of use. By maintaining and improving creativity and originality, increasing marketing, and directing their efforts toward placing themselves at their preferred spot on the perceptual map, we feel that Rubberball can create a brand name and a reputation as a market leader in stock photography.

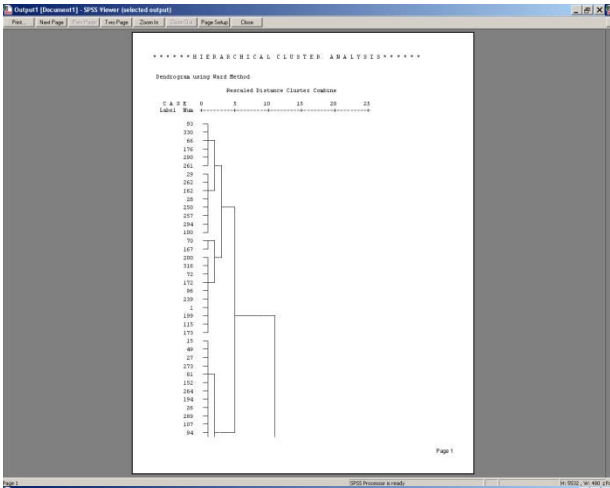
# Appendix A **Descriptive Statistics**

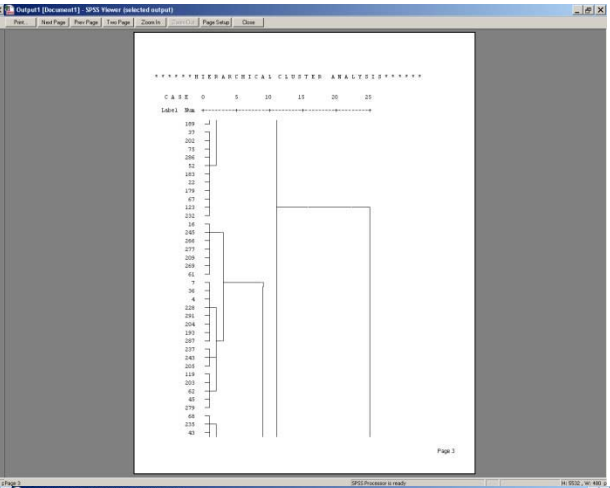
| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| caucasian | 292 | 1.00 | 5.00 | 4.1096 | .99223 |
| black | 294 | 1.00 | 5.00 | 3.8878 | 1.06655 |
| hispanic | 291 | 1.00 | 5.00 | 3.7148 | 1.09438 |
| asian | 289 | 1.00 | 5.00 | 3.6228 | 1.13940 |
| mixedethnicity | 293 | 1.00 | 5.00 | 3.8464 | 1.08869 |
| multiethnicgroup | 290 | 1.00 | 5.00 | 3.8724 | 1.07870 |
| male | 293 | 1.00 | 5.00 | 4.0068 | 1.00680 |
| female | 293 | 1.00 | 5.00 | 4.1024 | .95968 |
| multigenderedgroup | 290 | 1.00 | 5.00 | 3.9586 | 1.09971 |
| infants | 292 | 1.00 | 5.00 | 2.7500 | 1.22229 |
| kids | 290 | 1.00 | 5.00 | 3.1759 | 1.24232 |
| teens | 288 | 1.00 | 5.00 | 3.0903 | 1.18594 |
| youngadults | 289 | 1.00 | 5.00 | 3.4256 | 1.19700 |
| adults | 291 | 1.00 | 5.00 | 4.0309 | .96975 |
| babyboomers | 293 | 1.00 | 5.00 | 3.7577 | 1.15539 |
| seniors | 292 | 1.00 | 5.00 | 3.3938 | 1.22644 |
| Valid N (listwise) | 263 | | | | |

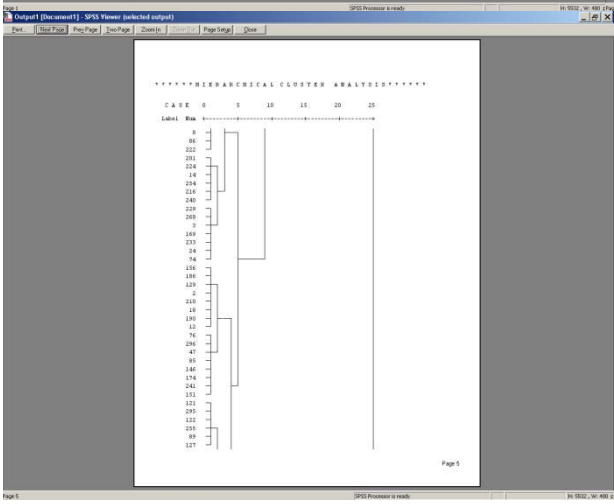
| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| action | 289 | 1.00 | 7.00 | 4.4983 | 1.66693 |
| business | 291 | 1.00 | 7.00 | 4.7732 | 1.92177 |
| lifestyle | 295 | 1.00 | 7.00 | 5.4305 | 1.73629 |
| whitebackground | 291 | 1.00 | 7.00 | 4.9622 | 1.82377 |
| carcatures | 289 | 1.00 | 7.00 | 2.2353 | 1.46249 |
| landscape | 292 | 1.00 | 7.00 | 4.2500 | 1.73972 |
| health | 290 | 1.00 | 7.00 | 4.2552 | 1.97836 |
| beauty | 292 | 1.00 | 7.00 | 3.7534 | 1.92135 |
| environmental | 293 | 1.00 | 7.00 | 4.7645 | 1.68062 |
| editorial | 288 | 1.00 | 7.00 | 3.6944 | 1.92644 |
| stillife | 294 | 1.00 | 7.00 | 3.8673 | 1.81746 |
| locationshots | 295 | 1.00 | 7.00 | 4.5559 | 1.71511 |
| Valid N (listwise) | 274 | | | | |

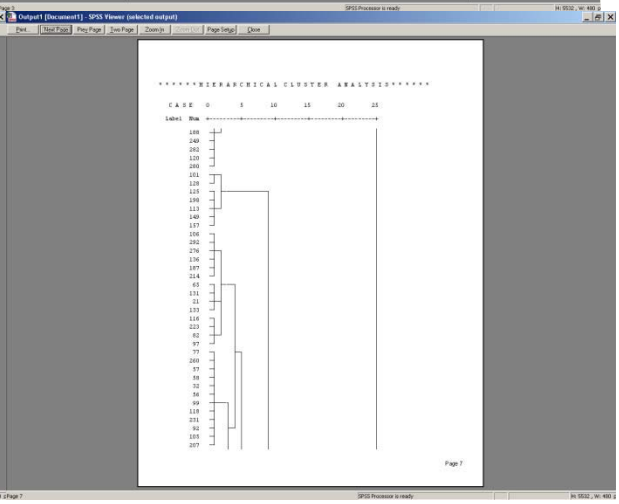
| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Stockmusic | 300 | 1.00 | 5.00 | 2.6667 | 1.23042 |
| stockillustrations | 300 | 1.00 | 5.00 | 3.4033 | 1.09758 |
| stockvideo | 300 | 1.00 | 5.00 | 2.7067 | 1.18263 |
| stockfonts | 300 | 1.00 | 5.00 | 3.3700 | 1.19912 |
| stockhdfootage | 300 | 1.00 | 5.00 | 2.5200 | 1.14629 |
| Valid N (listwise) | 300 | | | | |

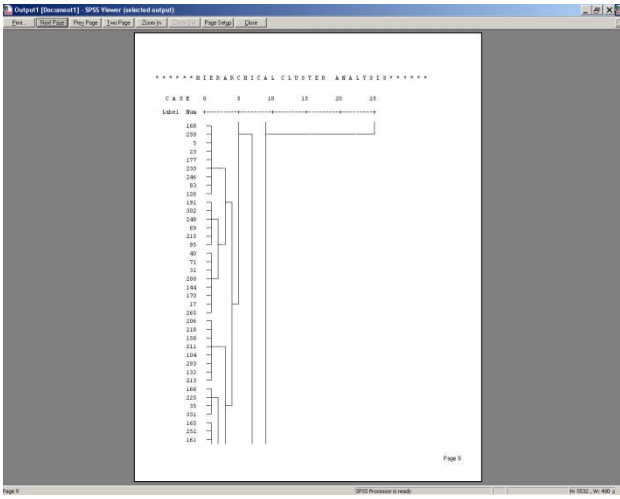
# Appendix B

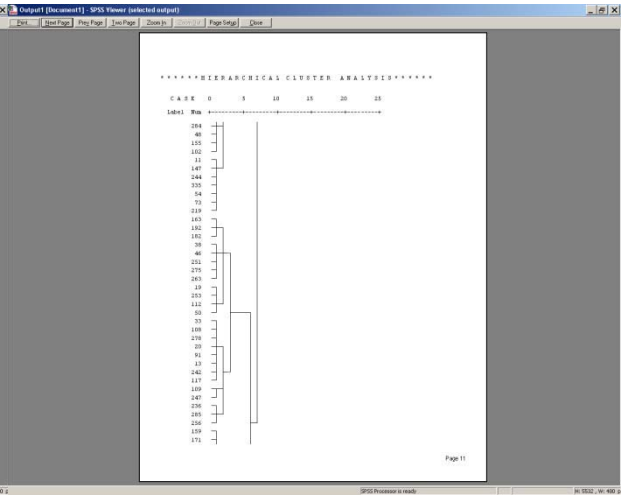

Output1 [Document1] - SPSS Viewer (selected output)
******HIERARCHICAL CLUSTER ANALYSIS******
Dendrogram using Ward Method
Rescaled Distance Cluster Combine
CASE
Label Num
Page 1


Output1 [Document1] - SPSS Viewer (selected output)
******HIERARCHICAL CLUSTER ANALYSIS******
CASE
Label Num
Page 3


Output1 [Document1] - SPSS Viewer (selected output)
******HIERARCHICAL CLUSTER ANALYSIS******
CASE
Label Num
Page 5


Output1 [Document1] - SPSS Viewer (selected output)
******HIERARCHICAL CLUSTER ANALYSIS******
CASE
Label Num
Page 7


Output1 [Document1] - SPSS Viewer (selected output)
******HIERARCHICAL CLUSTER ANALYSIS******
CASE
Label Num
Page 9


Output1 [Document1] - SPSS Viewer (selected output)
******HIERARCHICAL CLUSTER ANALYSIS******
CASE
Label Num
Page 11

**(Fig. 2)**

**Ward Method * Cluster Number of Case Crosstabulation**

Count

| | | Cluster Number of Case | | Total |
|---|---|---|---|---|
| | | 1 | 2 | 1 |
| Ward Method | 1 | 127 | 10 | 137 |
| | 2 | 29 | 129 | 158 |
| Total | | 156 | 139 | 295 |

**(Fig. 3) Centroid data for 2 Cluster Segmentation**

| | Name | Price | Sizes | Relvance | # Relevant | EaseOfUse | Lightbox | PurchSpeed | Exclusive | Creative |
|---|---|---|---|---|---|---|---|---|---|---|
| Segment 2 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 |
| | **Name** | **Price** | **Sizes** | **Relvance** | **# Relevant** | **EaseOfUse** | **Lightbox** | **PurchSpeed** | **Exclusive** | **Creative** |
| Segment 1 | 2 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 4 | 4 |

# Appendix C

Variables in the Equation

(Fig. 1)

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1(a) | Reputation | -.194 | .177 | 1.197 | 1 | .274 | .824 |
| | Price | .021 | .225 | .009 | 1 | .925 | 1.022 |
| | ImgSizes | .276 | .262 | 1.113 | 1 | .291 | 1.318 |

| | | | | | | |
|---|---|---|---|---|---|---|
| SearchRel | .449 | .410 | 1.204 | 1 | .272 | 1.568 |
| NumbImg | .063 | .282 | .050 | 1 | .823 | 1.065 |
| Ease | -.336 | .350 | .917 | 1 | .338 | .715 |
| Lightbox | .021 | .181 | .013 | 1 | .908 | 1.021 |
| PurchSpeed | .139 | .257 | .294 | 1 | .588 | 1.149 |
| ExRights | -.248 | .166 | 2.226 | 1 | .136 | .780 |
| Creativity | .580 | .266 | 4.746 | 1 | .029 | 1.787 |
| Constant | -4.763 | 1.511 | 9.940 | 1 | .002 | .009 |

a Variable(s) entered on step 1: Reputation, Price, ImgSizes, SearchRel, NumbImg, Ease, Lightbox, PurchSpeed, ExRights, Creativity.

**(Fig. 2)**

Purchase Probability= -4.763+ Reputation (-.194)+Image Sizes (.276)+Search Relevance(.449)+ Exclusive rights (-.248) + Creativity(.580)

Descriptive Statistics

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Reputation | 295 | 1.00 | 4.00 | 1.9593 | .94673 |
| Price | 295 | 1.00 | 4.00 | 3.2949 | .82343 |
| ImgSizes | 295 | 1.00 | 4.00 | 3.2915 | .74899 |
| SearchRel | 295 | 1.00 | 4.00 | 3.5966 | .62542 |
| NumbImg | 295 | 1.00 | 4.00 | 3.2983 | .76432 |
| Ease | 295 | 1.00 | 4.00 | 3.5864 | .67397 |

| | | | | | |
|---|---|---|---|---|---|
| Lightbox | 295 | 1.00 | 4.00 | 2.7220 | .96045 |
| PurchSpeed | 295 | 1.00 | 4.00 | 3.1797 | .84410 |
| ExRights | 295 | 1.00 | 4.00 | 2.2678 | 1.04303 |
| Creativity | 295 | 1.00 | 4.00 | 3.3932 | .78763 |
| Valid N (listwise) | 295 | | | | |

Variables in the Equation

**(Fig. 3)**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1(a) | Howlong | .112 | .052 | 4.716 | 1 | .030 | 1.119 |
| | Howoften | .131 | .094 | 1.946 | 1 | .163 | 1.140 |
| | Howmuch | .476 | .105 | 20.395 | 1 | .000 | 1.609 |
| | Constant | -4.385 | .639 | 47.081 | 1 | .000 | .012 |

a Variable(s) entered on step 1: Howlong, Howoften, Howmuch.

**(Fig. 4)**

Purchase Probability= -4.385 + How long (.112) + How often (.131) +How much (.476)

Descriptive Statistics

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Howlong | 336 | 1.00 | 11.00 | 4.2262 | 2.81192 |

| | | | | | |
|---|---|---|---|---|---|
| Howoften | 336 | 1.00 | 7.00 | 3.9851 | 2.00069 |
| Howmuch | 335 | 1.00 | 6.00 | 3.0030 | 1.59434 |
| Valid N (listwise) | 335 | | | | |

# Appendix D

**Correlations**

| | | SearchCapability | ImageLibrary | Price | ImageQual | ImageVar | Creativity | EaseofUse |
|---|---|---|---|---|---|---|---|---|
| SearchCapability | Pearson Correlation | 1 | .678(**) | .315(**) | .605(**) | .575(**) | .525(**) | .685(**) |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .000 | .000 | .000 |
| | N | 803 | 801 | 800 | 798 | 800 | 793 | 790 |
| ImageLibrary | Pearson Correlation | .678(**) | 1 | .142(**) | .684(**) | .766(**) | .569(**) | .538(**) |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .000 | .000 | .000 |
| | N | 801 | 802 | 800 | 798 | 800 | 793 | 790 |
| Price | Pearson Correlation | .315(**) | .142(**) | 1 | .151(**) | .154(**) | .174(**) | .309(**) |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .000 | .000 | .000 |
| | N | 800 | 800 | 801 | 798 | 800 | 793 | 791 |
| ImageQual | Pearson Correlation | .605(**) | .684(**) | .151(**) | 1 | .771(**) | .687(**) | .570(**) |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .000 | .000 | .000 |
| | N | 798 | 798 | 798 | 800 | 798 | 792 | 788 |
| ImageVar | Pearson Correlation | .575(**) | .766(**) | .154(**) | .771(**) | 1 | .715(**) | .545(**) |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | | .000 | .000 |
| | N | 800 | 800 | 800 | 798 | 801 | 793 | 790 |
| Creativity | Pearson Correlation | .525(**) | .569(**) | .174(**) | .687(**) | .715(**) | 1 | .551(**) |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | | .000 |
| | N | 793 | 793 | 793 | 792 | 793 | 795 | 785 |
| EaseofUse | Pearson Correlation | .685(**) | .538(**) | .309(**) | .570(**) | .545(**) | .551(**) | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | |
| | N | 790 | 790 | 791 | 788 | 790 | 785 | 791 |

** Correlation is significant at the 0.01 level (2-tailed).

**(Fig. 2)**

**Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 4.231 | 60.436 | 60.436 | 4.231 | 60.436 | 60.436 | 3.938 | 56.252 | 56.252 |
| 2 | 1.034 | 14.766 | 75.203 | 1.034 | 14.766 | 75.203 | 1.327 | 18.951 | 75.203 |
| 3 | .556 | 7.942 | 83.145 | | | | | | |
| 4 | .459 | 6.551 | 89.696 | | | | | | |
| 5 | .285 | 4.065 | 93.761 | | | | | | |
| 6 | .262 | 3.737 | 97.498 | | | | | | |
| 7 | .175 | 2.502 | 100.000 | | | | | | |

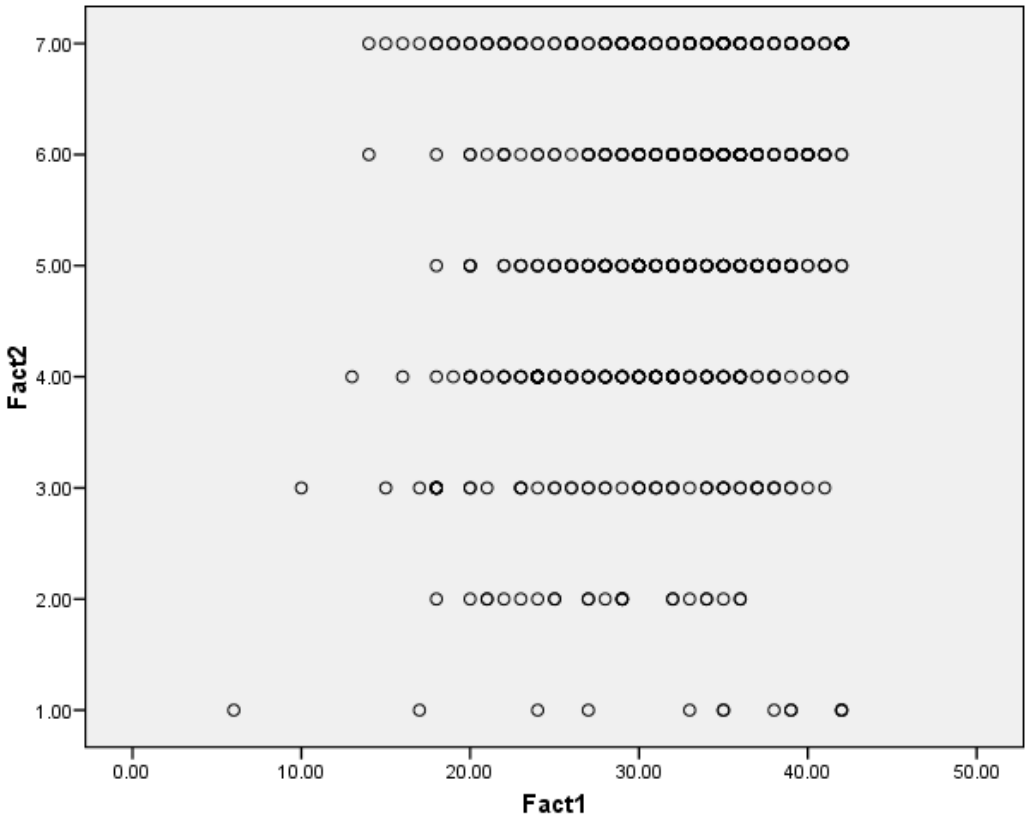
Extraction Method: Principal Component Analysis.

**Rotated Component Matrix(a)**

| | Component | |
|---|---|---|
| | 1 | 2 |
| SearchCapability | .720 | .434 |
| ImageLibrary | .854 | .093 |
| Price | .026 | .943 |
| ImageQual | .879 | .077 |
| ImageVar | .900 | .047 |
| Creativity | .812 | .101 |
| EaseofUse | .669 | .471 |

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 3 iterations.

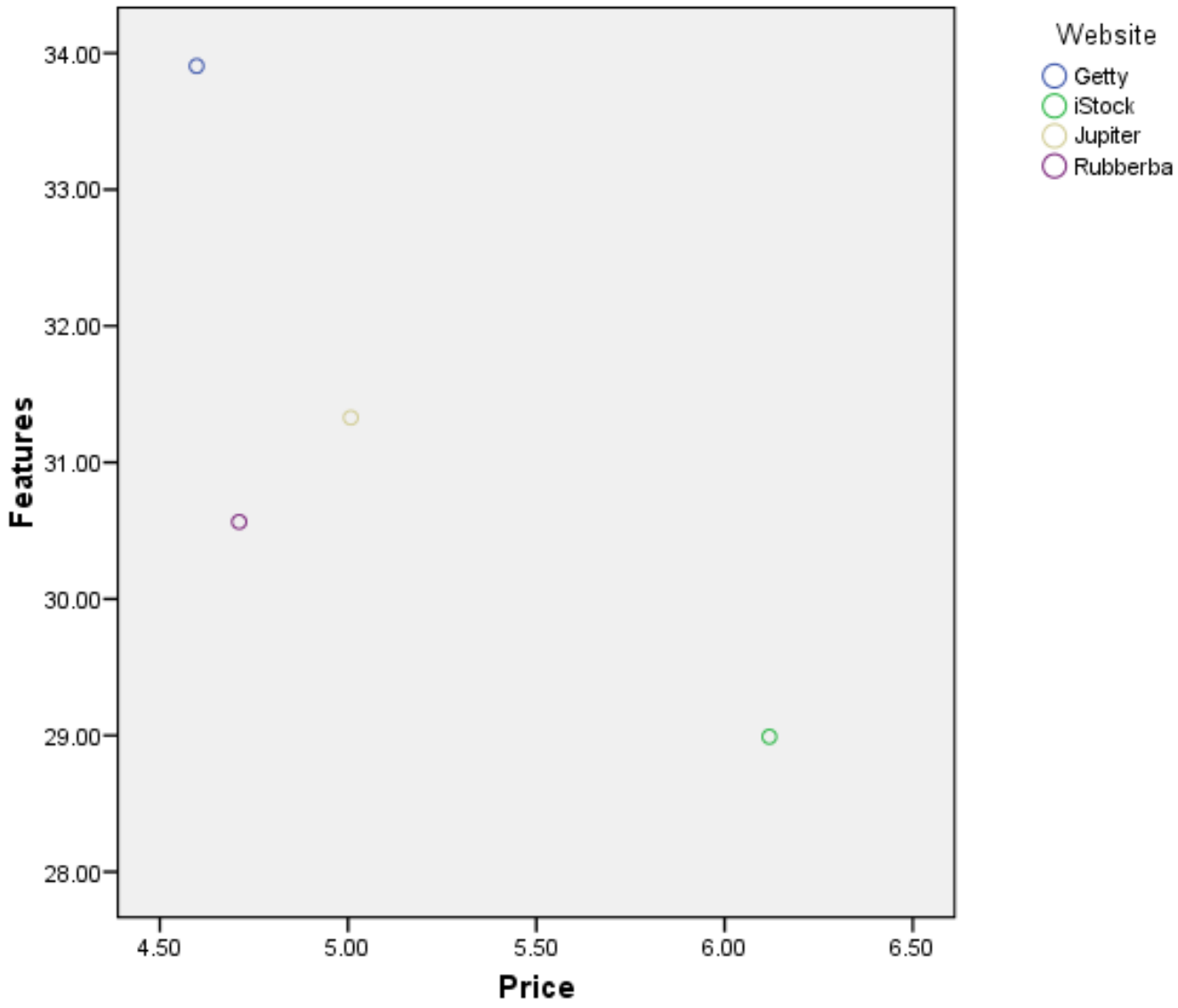
**(Fig. 3)**



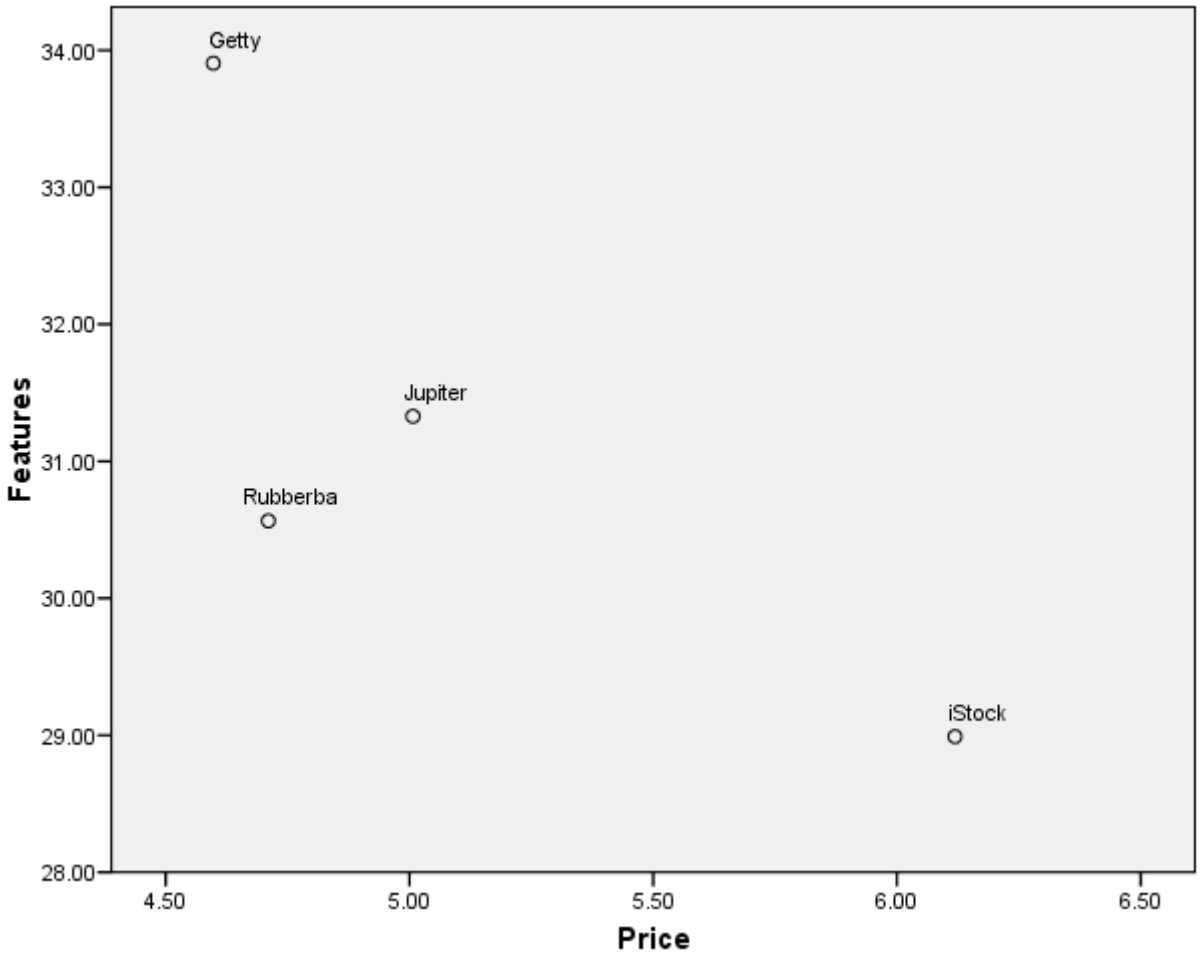

**Report**

Mean

| Brand | Fact1 | Fact2 |
|---|---|---|
| Getty | 33.9051 | 4.5977 |
| iStock | 28.9904 | 6.1190 |
| Jupiter | 31.3284 | 5.0071 |
| Rubberba | 30.5652 | 4.7105 |
| Total | 31.3607 | 5.0949 |


Website
Getty
iStock
Jupiter
Rubberba
34.00
33.00
32.00
31.00
30.00
29.00
28.00
Features
4.50
5.00
5.50
6.00
6.50
Price

OUr


Getty
Jupiter
Rubberba
iStock
34.00
33.00
32.00
31.00
30.00
29.00
28.00
Features
4.50
5.00
5.50
6.00
6.50
Price