



Q-Sort

Linking Firm Culture and Investment Manager Success

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Editor's Note: The author is president of FS Associates, which is a member of the InvestmentQ research team.

Many tools are available for investment consultants who are looking for money managers that will provide the strongest results against a benchmark. Most of these tools are steeped in past-performance data. Few tools exist, however, for practitioners who are looking for managers that can provide a good philosophical or cultural fit with a client, and most of them rely on subjective opinions that are difficult to apply over time and different managers.

On the one hand, we have a substantial amount of easily gathered and analyzed data, but conclusions must be footnoted with “past performance is not a guarantee of future results.” On the other hand, industry leaders view a firm’s culture as a dominant factor in its long-term success, but our ability to quantify culture is very limited.

Indeed, “easy to measure” may not always be synonymous with “most useful.” This article describes “Q-Sort,” a quantifiable measure of culture and decision-making processes at investment firms, and how Q-Sort scores may indicate a manager’s future institutional asset growth and subsequent investment professional departures.

What is Q-Sort?

Q-Sort is a statistical technique that produces a quantitative analysis of the decision-making culture of organizations. Q-Sort methodology was developed by social scientist William

Stephenson in the 1940s and has been refined since. The Group Dynamics Q-Sort, developed by Philip Tetlock and Randall S. Peterson,¹ is a rigorous, 100-item survey that quantifies organizational culture. It measures traits such as cohesion, decision-making, behavioral norms, tolerance for dissent, situational stress, and leadership.

Background

In December 2004, the Brandes Institute published a study of business culture among investment managers. For that study, the Brandes Institute partnered with Randall Peterson of the London Business School and consultants Watson Wyatt Worldwide (now Towers Watson) to use Q-Sort to assess the culture of 46 money managers based in the United States and Europe.²

In the original 2004 study, Q-Sort results for each participating manager were gathered from the perspectives of both the investment managers and one or more consultants. The results quantified specific aspects of firm culture and showed some differences in perceptions among senior managers at certain firms and consultants. To be clear, Q-Sort was used to assess business management—not portfolio management.

More recently, InvestmentQ focused on a subset of 24 U.S. managers that participated in the original study. The team evaluated business traits for these managers over the three years since the initial study, looking for a connection between firm culture and “success.” This article refers to aspects of the 2004 study and reveals results from the more recent analysis.

Objective and Rationale

The search for a method to quantify subjective cultural information initially focused on an analytical approach that would:

- Be rigorous in statistical methodology
- Be able to differentiate the cultural characteristics of different firms
- Be applied consistently across a representative sample of investment management firms
- Be able to be applied over future periods to measure subsequent changes
- Have been tested and found to work in fields outside investment management

The team believed that the results may provide insight into the industry as a whole; for example, by documenting the common characteristics of the managers studied and how they compare with those of other organizations previously studied. With more information on the characteristics of a manager’s organizational culture, practitioners may be better able to understand the potential fit (or lack thereof) between a manager and client and perhaps draw conclusions between culture and success.

The research uses a statistical technique that fits the above criteria and, to my knowledge, has never been applied to the investment management industry. The methodology was based on Peterson’s work in organizational behavior, which focused on how personalities of members in a group affect interaction and firm performance. For example, he examined how the personality of a chief executive officer



(CEO) affects interaction within the top management team (TMT).³

The Brandes Institute approached Peterson about applying these ideas to the investment industry, and Peterson joined a working group to pursue the project. Subsequently Watson Wyatt Worldwide and then FS Associates joined the project team.

Results were analyzed for the 46 managers who responded to the 2004 Q-Sort survey; results included for each firm a response from the TMT, an outside consultant, and (in some cases) an independent “referee.” For 35 of 46 managers, the consultant/referee response was broadly consistent with the manager’s own response, but 11 instances had less agreement. These differences were most notable among non-U.S. firms. For more details on this first phase, see Peterson et al. (2004).

Methodology for Follow-Up Study

Of the 46 managers in the original 2004 study, InvestmentQ focused on 24 U.S.-based managers for follow-up. The following five traits were studied to help quantify “success”:

- Change in institutional separate account assets under management at each firm
- Change in the number of institutional separate accounts
- Change in overall assets under management
- Professional turnover
- Performance of select products

Watson Wyatt provided the follow-up data as of June 30, 2004, and June 30, 2007. Data for each manager’s “most significant” products (as determined by Watson Wyatt) included performance for more than 100 products, of which 77 provided at least five years of pre-2004 data.

Results from the 2004 Q-Sorts were analyzed for correlations with each of the five traits cited above, combinations of these traits, and/or for Q-Sort’s potential predictive power. Recognizing the limita-

tions of a sample of just 24 managers over a limited period, InvestmentQ believes that these findings should be viewed as indicative rather than definitive.

Results

Focusing on changes in asset growth and professional turnover in the three-year period ending June 30, 2007, InvestmentQ compared these traits with Q-Sort results from 2004. This comparative analysis revealed the following:

Recent analysis using Q-Sort showed that managers that held cultural views similar to those of consultants tended to enjoy greater subsequent business success.

In general, managers’ perceptions of their own cultures could be regarded as more favorable than consultants’ perceptions of the managers’ cultures. Given this dynamic, the more a manager’s perception of its culture differed materially from consultants’ perceptions, the more that manager’s business success (as measured by institutional asset growth) tended to slow.

Material differences in perceptions of culture served as a better predictor of asset growth than past portfolio performance.

Aspects of Q-Sort scores are linked to a decline in a manager’s future institutional asset growth, and Q-Sort also indicated subsequent investment professional departures, a topic of concern to clients and consultants.

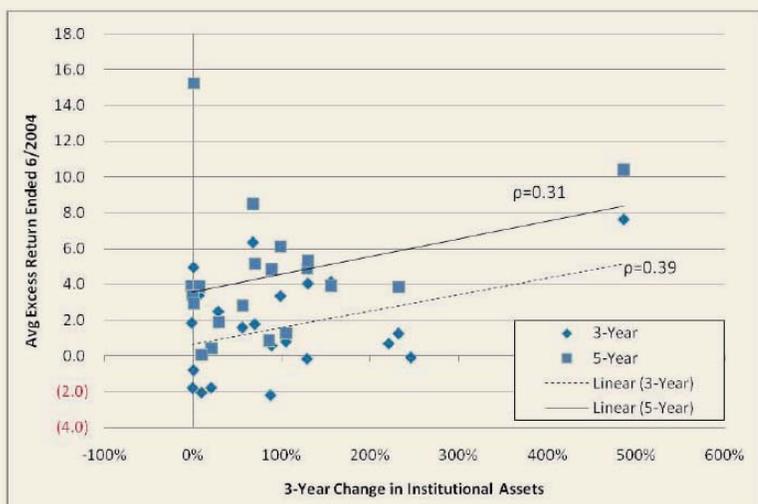
Additional analysis led to other, relevant conclusions discussed below.

Cronbach Alpha and Process Indicators

Cronbach Alpha⁴ compensates for overlapping responses by measuring the level to which responses suggest agreement with the combined “judgment” among all respondents. In general, Cronbach Alpha of more than 0.70 is considered to show a reasonable measure of agreement. In the case of the 2004 study, higher Cronbach Alpha suggested a stronger level of agreement among respondents regarding the prevailing culture at investment management firms.

InvestmentQ found that Cronbach Alpha correlated with changes in institutional assets through mid-2007. The study found that Cronbach Alpha also correlated—to a lesser degree—with three- and five-year prior excess returns for select products. Thus, the

FIGURE 1: CORRELATION OF THREE-YEAR CHANGE IN INSTITUTIONAL ASSETS AND AVERAGE EXCESS RETURN (JUNE 30, 2004–JUNE 30, 2007)



Source: InvestmentQ, as of June 30, 2007



findings suggest Cronbach Alpha was a better indicator of subsequent growth in institutional assets than the popular measure of past relative performance. Figure 1 shows correlations between asset growth and three- and five-year prior excess returns of 0.39 and 0.31, respectively. Figure 2 shows a higher correlation of 0.46 between Cronbach Alpha and asset growth. Note that Cronbach Alpha did not provide an indication of asset changes at the individual product level.

Another component of Q-Sort results are process indicator scales. Process indicator scales summarize how an investment manager scores on eight measures of the decision-making process. Each process indicator consists of opposite organizational traits, such as “sense of control vs. sense of crisis” and “optimism vs. pessimism.” Process indicator results are measured on a scale ranging from 1.0 to 9.0. Using “optimism vs. pessimism” as an example, a score of 1.0 would suggest the manager’s culture shows the highest level of optimism; a score of 9.0 would suggest the highest level of pessimism.

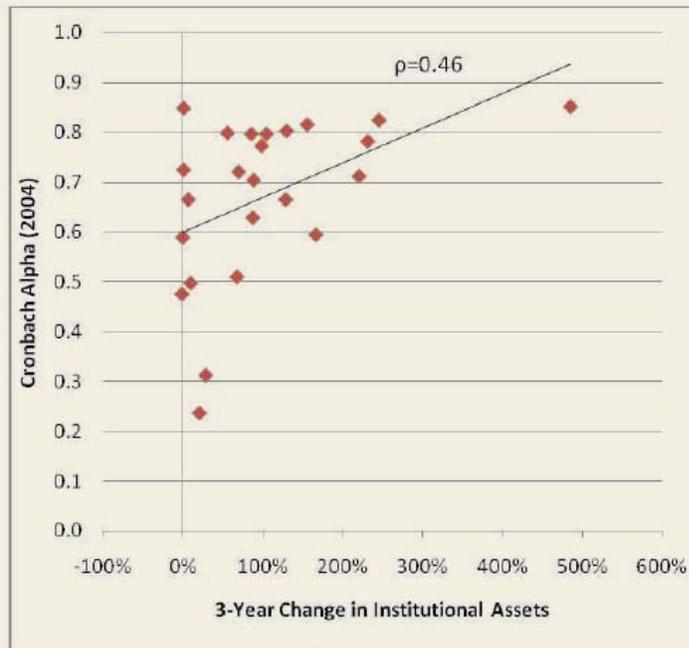
The study showed that three process indicators were associated with lower subsequent institutional asset growth, providing “warning flags.” In other words, on the 1.0 to 9.0 scale, a high score for these process indicators by the client or consultant served as a caution for weaker future asset growth.

Further, the research revealed that if the manager’s own scores for the following three process indicators produce materially lower numbers than the client/consultant Q-Sorts for that manager, then an even higher level of caution is warranted:

- Decentralized vs. centralized
- Optimism vs. pessimism
- Top-down vs. bottom-up (business process)

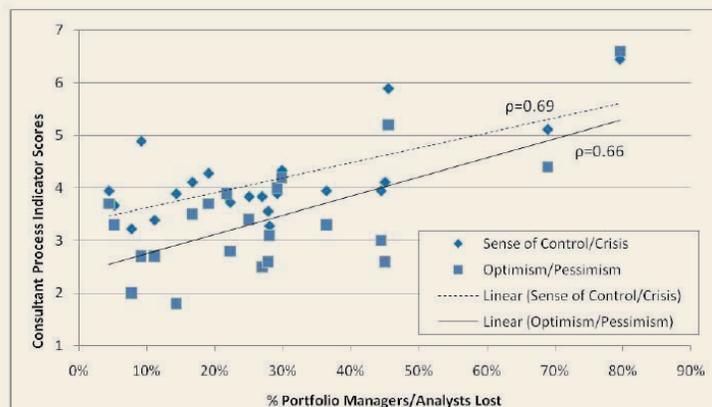
The InvestmentQ team also found that higher scores on two process indicators were correlated with departures of a higher proportion of portfolio

FIGURE 2: CORRELATION OF THREE-YEAR CHANGE IN INSTITUTIONAL ASSETS AND CRONBACH ALPHA (JUNE 30, 2004–JUNE 30, 2007)



Source: InvestmentQ, as of June 30, 2007

FIGURE 3: CORRELATION OF THE PERCENTAGE OF PORTFOLIO MANAGERS OR ANALYSTS LOST AND CONSULTANT PROCESS INDICATOR SCORES (JUNE 30, 2004–JUNE 30, 2007)



Source: InvestmentQ, as of June 30, 2007

managers and/or analysts in the subsequent three-year period. Firms with a higher “sense of crisis” and “pessimism” in 2004 had higher investment professional turnover in the subsequent three years.

In figure 3, the y-axis reflects consultants’ views of managers, as measured by two process indicators, as of June 30, 2004. The x-axis shows the percentage of investment professionals lost over the subsequent three years, through June

30, 2007. Each data point represents one of the 24 managers covered by the study. The dotted line illustrates the correlation between “sense of crisis” and professional turnover; for this measure, the correlation (ρ) was 0.69. The solid line illustrates the correlation between “pessimism” and turnover; the correlation (ρ) was 0.66.

On the 1.0 to 9.0 scale, a high score on these two process indicators by a client or consultant also would be of concern. If the manager scores itself materially lower than clients or consultants on these process indicators, this, too, may increase the level for concern.

Utility for Investment Advisors

InvestmentQ’s analysis of Q-Sort results and various measures of investment manager success yielded a number of noteworthy conclusions. While the limited size of our sample and the three-year period of study temper the confidence we place in the robustness of the results, we believe these insights demonstrate the potential merit of Q-Sort as a quantitative measure of qualitative factors. Further, we regard this research among useful first steps toward developing this technique into a tool that may be widely used in the industry.

For investment professionals who seek to better understand the connection between firm culture and investment success, Q-Sort may help identify areas of concern and enable more-meaningful conversations. The initial results are insightful and help bridge the gap between cultural theories and practical application, according to InvestmentQ’s Peterson. He noted that the correlations on some factors exceeded 0.66 and described them as “significant.” He explained to InvestmentQ that Q-Sort’s utility could be strengthened with a broader and deeper pool of participating managers and continued evaluation over a longer period.⁵ 

Acknowledgement

I would like to acknowledge Brandes Institute Manager Bob Schmidt for his contributions to this article.

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Endnotes

- ¹ See R. S. Peterson, P. D. Owens, and P. V. Martorana. The Group Dynamics Q-Sort in Organizational Research: A New Method for Studying Familiar Problems. *Organizational Research Methods* 2 (1999): 107–136.
- ² Since 2004, this team has continued to guide the research project, which has been renamed “InvestmentQ.” The management of InvestmentQ and its Web site has been moved under the control of FS Associates, Inc.; the InvestmentQ research team currently consists of FS Associates, the Brandes Institute, and Randall Peterson.
- ³ Randall S. Peterson, D. Brent Smith, Paul V. Martorana, and Pamela D. Owens. The Impact of CEO Personality on TMT Dynamics: One Mechanism by Which Leadership Affects Organizational Performance. *Journal of Applied Psychology* 88, no. 5 (October 2003): 795–808.
- ⁴ Cronbach Alpha determines the internal consistency or average correlation of items in a survey instrument to gauge its reliability. Cronbach Alpha can be written as a function of the number of test items and the average intercorrelation among the items. Below, for conceptual purposes, we show the formula for the standardized Cronbach Alpha:

$$a = \frac{N - \bar{r}}{1 + (N - 1) \cdot \bar{r}}$$

Here N is equal to the number of items and \bar{r} is the average inter-item correlation among the items. One can see from this

formula that if you increase the number of items, you increase Cronbach Alpha. Additionally, if the average inter-item correlation is low, Cronbach Alpha will be low. As the average inter-item correlation increases, Cronbach Alpha increases as well. This makes sense intuitively: If the inter-item correlations are high, then there is evidence that the items are measuring the same underlying construct. This is really what is meant when someone says results have “high” or “good” reliability. They are referring to how well their items measure a single unidimensional latent construct. Source: <http://www.ats.ucla.edu/stat/spss/faq/alpha.html>.

- ⁵ InvestmentQ invites members of the investment community to conduct Q-Sorts of managers at its Web site (www.investmentq.net). There is no cost to do the test. Results are available seconds after the test is completed.

References

- Peterson, Randall, Sarah Ronson, the Brandes Institute, and Watson Wyatt Worldwide. 2004. Evaluating Top Management Teams Within the Investment Management Industry: Applying the Group Dynamics Q-Sort. The Brandes Institute, available at <http://www.brandes.com/Institute/Documents/Q-Sort%20Paper%20123104.pdf>.

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