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Mutual Fund Management and Fund Performance

Barbara S. Poole, (E-mail: bpoole@rwu.edu), Roger Williams University
Candy A. Bianco, (E-mail: cbianco@bentley.edu), Bentley College,
Craig Giroux, (E-mail: crgiroux@ibtoco.com), Investors Bank and Trust

Abstract

This study examines management characteristics, including education and experience, as determinants of mutual fund performance. Managers with graduate degrees did not perform differently from managers without graduate degrees. However, graduates of top 20 MBA programs outperformed MBAs from business schools not on the top 50 Wall Street Journal list. Manager's tenure was positively related to performance.

INTRODUCTION

Investors believe that the mutual fund market is far from efficient and that they need to pay a great deal of attention to who is managing their money (Chevalier and Ellison, 1999). While mutual fund investing provides the benefit of professional management, the effectiveness of the professional management is not consistent across all funds. Therefore, investors search for clues that suggest that a mutual fund manager will exhibit superior talent or ability.

Various studies have examined the relationship between discernible characteristics of fund managers and the performance of the mutual funds they manage. In particular, studies have looked at associations between education and fund performance, and between experience and fund performance. Results from these studies have been mixed.

Since the time when data were gathered for the fund manager characteristics studies, financial education has advanced. Business students run actual portfolios, work in real-time trading rooms, and have access to professional financial information services such as Bloomberg and Reuters. Even in business schools that lack funds to install expensive technology, students can use software such as StockTrak to simulate investment decision-making.

In light of changes in investment education since the data collection for the studies cited above, this paper revisits several of the questions addressed in the studies on manager education. The purpose of this paper is to extend the literature regarding associations between the education of fund managers and the returns from their respective funds. Further, the paper looks at associations between education and experience, and fund size.

This paper uses a streamlined methodology to examine a recent year's performance. The results suggest that further work in this area is warranted. These findings provide a basis for more extensive study which is currently underway.

The remainder of this paper is organized as follows. In section II, the literature is described. In section III, the data and methodology are presented, and in section IV, results are presented. The paper concludes in section V with a summary and recommendations.

LITERATURE REVIEW

This study considers mutual fund manager characteristics and the associations between those characteristics and fund performance. This study specifically examines whether a fund manager's performance relates to education and experience. In this section, the literature regarding the manager characteristics, education and longevity will be briefly reviewed.

Studies which look at the level and quality of the manager's education suggest differences in fund performance based on education. For example, Chevalier and Ellison (1999) found that managers who graduated from more selective undergraduate institutions, as measured by average SAT score, produced higher risk-adjusted returns. Golec (1996) looked at the age, tenure, and educational level of fund managers, and found that young managers with longer tenures and MBAs produced better risk-adjusted returns. However, an Australian study by Gallagher (2001) identified no link between fund manager education level and manager performance, suggesting that educational level alone is not sufficient for superior performance.

Several educational variables are explored in this study. The highest degree level achieved, undergraduate or graduate degree, is the first educational variable, consistent with the Golec (1996) study. The second educational variable is the perceived quality of education. Chevalier and Ellison (1999) used the average SAT score as an indication of the selectivity of the institution. Their study found that managers who graduated from the higher SAT score institution produced higher risk-adjusted returns. Rather than SAT score, this study uses Ivy League as a proxy for perceived quality. Finally, for managers with MBAs, the Wall Street Journal (2003) list of the top 50 business schools was used as a proxy for perceived quality of the graduate education.

Studies that looked at the length of the manager's tenure and fund performance produced mixed results. Lemak and Satish (1996) found an association between longer tenure managers and superior performance. Additionally, Golec (1996) found that managers with tenure of over 7 years have better risk adjusted performance, with manager tenure the most significant predictor of performance. However, both Porter and Trifts (1998) and Fortin, Michelson, and Jordan-Wagner (1999) found no relationship between manager tenure and performance.

While research has focused on the length of a manager's tenure as a predictor of future performance, a more logical assumption is that performance dictates a fund manager's tenure. As with any position, if managers are not performing well, they will not be able to remain in the position. Thus, in a group of experienced managers, poor performers have been filtered out.

Studies have also looked at associations between manager characteristics and the asset size of the fund. The size of the fund may provide some clues as to the management's perception of the manager's ability. Fortin, Michelson, and Jordan-Wagner (1999) found a positive relationship between tenure and fund size. Associations between educational characteristics and fund size are not known. This study extends the literature in this area.

DATA AND METHODOLOGY

Information about the fund, such as fund names, ticker symbols, objectives, manager names, and tenures were compiled using Morningstar Principia. Secondly, Bloomberg.net was used to access personal information on fund managers. Specifically, Bloomberg provided information on the managers' educational backgrounds, such as graduate and undergraduate institutions. A third source, Quicken.com, was used to find information on annual fund returns. All data were as of October 2003.

A data set of over five hundred growth, growth and income, and aggressive growth funds was assembled. This selection is similar to that of Chevalier and Ellison (1999), who used growth and growth and income funds. Using Bloomberg to find educational backgrounds, the list in excess of five hundred funds was cut to 330 due to missing data. Many managers represented more than one fund, so for each manager one representative fund was selected, resulting in a data set of 76 funds. Then the information provided by Morningstar, Bloomberg, and Quicken was compiled on Microsoft Excel spreadsheets. Specifically, the spreadsheets show fund information, manager characteristics, and information relative to the performance of the funds.

For managers with MBAs, the performance of graduates from the top 20 business schools based on the Wall Street Journal (2004) list was compared to the performance of MBAs from business schools which did not appear on the top 50. Graduates from business schools on the top 50 list, but in the 21st place or lower, were eliminated in order to avoid confounding the data.

Managers were also categorized by tenure with the fund, with 39 managers with five or fewer years of experience, 25 managers with 6-9 years, and 12 managers with ten or more years. This segmentation is consistent with that of Fortin, Michelson, and Jordan-Wagner (1999), who also compared returns of newer managers (≤ 5 years) to returns of veteran managers (≥ 10 years).

There are several limitations to this study due to the data and methodology used. The reduction of the data set, which was conducted originally to focus on characteristics of fund managers, may not be representative of the full sample. Although a graduate degree may not be reported, the manager may have done some graduate study, and graduate degrees were assumed to be MBAs unless otherwise noted.

After data were compiled, two tailed t-tests were used to test for significant differences in risk-adjusted return and in asset size. In this preliminary version of the study, no attempt was made to determine whether there are interactions among the educational and tenure variables.

RESULTS

The prestige of the manager's education, based on the Ivy League proxy, was unrelated to performance or asset size. The non-Ivy League graduates produced the same risk adjusted return, as measured by the Sharpe ratios (n=53, *M*=-1.07, sd= .29) as the Ivy managers (n=23, *M*= -1.08, sd= .27) (t=.1147, p=.91). The non-Ivy League graduates managed the same level of assets (n=53, *M*=2708.58, sd= 7983.94) as the Ivy managers (n=23, *M*= 2529.31, sd= 4611.9) (t=.1, p=.28). While not surprising, these results are otherwise unreported in the literature.

Educational level of the manager was unrelated to the returns of the fund. The undergrads produced the same risk adjusted return, as measured by the Sharpe ratios (n=24, *M*=-1.10, sd= .28) as the grad level managers (n=52, *M*= -1.02, sd= .28) (t=1.0831, p=.21). This finding confirms the finding from the Australian study by Gallagher (2001) which identified no link between fund manager education level and manager performance.

Educational level of the manager was likewise unrelated to the size of the fund. The undergrads managed the same level of assets (n=24, *M*=4156.47, sd= 10959.11) as the grad level managers (n=52, *M*= 1960.845, sd= 4296.84) (t=1.2576, p=.92). While not surprising, these results are otherwise unreported in the literature.

The graduate business school was a significant factor in the risk-adjusted performance, as measured by the Sharpe ratio, of the fund. The risk adjusted return for the top 20 MBAs (n=23, *M*=-1.02, sd=.29) exceeded those for graduates of business schools not on the top 50 list (n=19, *M*=-1.23, sd=.25) (t=2.56, p=.01). This finding further substantiates the Chevalier and Ellison (1999) study which suggested that quality education makes a difference in manager's risk-adjusted returns.

The graduate business school was not a factor in the size of the portfolio. The top 20 graduates managed the same size portfolios (n=23, *M*= 3230.68, sd= 5906.7) as the graduates from business schools not on the top 50 list (n=19, *M*= 607.88, sd=887.45) (t=1.91, p=.06). However, because the difference is close to statistical significance, further study of a larger sample may be warranted.

A significant relationship was found between the tenure of the manager and the risk adjusted returns of the fund. The newer managers (≤ 5 years) had lower average Sharpe ratios (n=26, *M*= -1.34, sd= .27) than the longer term managers (≥ 10 years) (n=13, *M*= -.88, sd= .31) (t=2.7936, p=.01). This study, which uses return data for one year, may not be representative of overall performance due to the negative results overall. Managers with longer tenures may have been able to rely on a long term defensive strategy for down markets which newer managers would not have had the time to develop. Of course, the usual mortality bias is also expected, that the poor managers would have been filtered out before they reached the long term tenure category. Findings from this analysis confirm those of Lemak and Satish (1996) and Golec (1996). The finding contradicts those of Porter and Trifts (1998) and Fortin, Michelson, and Jordan-Wagner (1999) who found no relationship between manager tenure and performance. However, this study cannot be used to disconfirm their findings because of the short time horizon used.

As would be expected based on the literature, a significant relationship was found between the tenure of the manager and the size of the fund. The newer managers ($\leq$ 5 years) managed fewer assets (*M*= 735.41, sd= 1421.43) than the longer term managers ($\geq$ 10 years) (*M*= 7467.97, sd= 15060.29), (t=2.8152, p=.01). These results confirm the findings of Fortin, Michelson, and Jordan-Wagner (1999).

CONCLUSIONS

Professional management is a considerable benefit to mutual fund investors, and the professional management provided by managers varies greatly. Results of studies such as this can help investors and advisors select funds, based on manager characteristics that have been found to be associated with successful management.

This study looks at manager education as a determinant of performance. While a graduate degree alone did not bring higher returns, graduates of top 20 MBA programs did outperform other MBAs. This finding suggests that investors concerned with making wise investment decisions should consider the fund manager's graduate education. Likewise, fund companies hiring new employees or allocating current resources may want to consider a fund manager's educational background as a suggestion of future performance. However, because the top MBA fund managers do not manage a larger portfolio than MBAs from schools not on the top 50 list, fund companies appear not to be favoring these managers as to portfolio size.

The study also yields implications for institutions of education as well as for students planning their educations. The study suggests that fund managers who do not receive graduate degrees perform as well as those with graduate degrees. Results were similar for non-Ivy League versus Ivy League alumni. However, the study shows that the graduates from the top 20 business schools do produce superior returns. This finding may be due to superior education or a strong admissions screening process.

As the previous literature suggests, a fund manager's tenure has a positive relationship with performance. Such a relationship is important for investors who want to know characteristics that affect a fund manager's performance. Because managers with longer tenures have been statistically shown to perform better, investors should look to longer tenured managers when making investment decisions.

This study examined links between mutual fund manager characteristics and fund manager performance. Specifically, the study focused on fund manager experience and education. This study was based on 76 fund mangers, and there is considerable room for extending the research to a wider variety of fund managers and fund categories. Further study, particularly regarding the ranking of the manager's business school education, is encouraged.

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