

**THE VALUE OF PRIVATE INFORMATION IN INVESTMENT RESEARCH: DO
COMPANY SITE VISITS AFFECT THE TRADING PATTERNS AND
PERFORMANCE OF PROFESSIONAL INVESTORS?**

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ABSTRACT

This paper looks at relationships between manager characteristics and actions on the performance, management fees, and systematic risk of a sample of 938 US equity investment management firms during the period 2008 through 2011, focusing on the impact of company site visits. Company site visits significantly enhance performance, management fees, and portfolio turnover. Site visits are also positively related to employee equity ownership while the latter is inversely related to portfolio turnover. This supports the agency hypothesis that managers with greater personal stakes in their companies invest more in collecting non-public information for longer term commitments.

JEL Codes: G11, G12, G14

Keywords: private information; company site visits; portfolio performance

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1. Introduction

According to the Investment Company Institute Factbook (ICI, 2011), US Investment Management firms had US \$13.1 trillion in total net assets under management at the end of 2010, which reflects an increase of US \$943 billion and US \$1.8 trillion relative to 2009 and 2008 respectively. Our study focuses on the private information collection and trading patterns of such firms. Lev and Zarowin (1999) assert that the value of public information available from companies' financial reports has shown a secular decline that coincides with the new role of intangibles associated with innovative activities in the valuation of US business enterprises. To the extent that this is correct one might state that private information, garnered through such activities as company site visits, may be of significance in assessing the value of firms for portfolio decision-making. Company site visits involve personal contact as well as face-to-face interaction with company personnel. Such meetings ostensibly provide pertinent, and private, information concerning managers' long-term objectives and plans, as well as other crucial factors affecting the firms' financial performance, including data on costs and margins, the outlook of demand for the company's products, the current labor situation, plans for future capital investment, and information on competitors (e.g. Arnold and Moizer (1984) and Wolper, (2009))¹

Site visits are also deemed of value to the extent that they allow investment managers to verify the quality of information found in financial statements and the quality of management (e.g. Arnold and Moizer (1984), Chugh and Meador (1984), Moizer and Arnold (1984), Pike et al (1993), Barker (1998), Holland (2002), Opeila (2004), Glaum and Friedrich (2006), Wright (2007)).

¹ G. Wolper, (2009) <http://www.morningstar.com/cover/videocenter.aspx?id=311080>

The impact of management characteristics and behavior on fund manager performance has been studied extensively in the literature.² One aspect of behavior, however, that has not received a great deal of attention is the frequency of company visits that investment managers undertake to ensure that their information, research, and analyses of the securities comprising the fund(s) under their management is in line with their firsthand account of the company. Much of the extant work is anecdotal, and based on surveys of fund managers.³ While interview based studies may reveal details concerning fund managers' views and outlook, they may be subject to sample size, representativeness, and response biases amongst other problems. To the best of our knowledge, there have not been any empirical studies that directly test the impact of company visits on investment managers' decisions, and performance.

This study uses a unique database of professional equity portfolio managers to address three behavioral questions: a) Do company site visits provide incremental private information that is not found in financial statements or other public sources that affects managerial decisions? b) Do company site visits serve to enhance fund performance and reduce risk? c) Do managers' personal stakes affect the information gathering process and trading behavior of firms?

² See e.g. Jensen (1968), Estes and Hosseini (1988). Gruber (1996), Golic (1996), Daniel et al (1997), Powell and Ansic (1997), Chevalier and Ellison (1999), Barber and Odean (1999,2001), Powell, Atkinson, Baird and Frye (2003), Almazan et al (2004), Gottesman and Morey (2006), Kohrana et al (2007), Switzer and Huang (2007). Kacperczyk and Sialm, and Zheng (2008). Massa and Patgiri (2009), Cremers and Petajisto (2009) Gil-Bazo and Ruiz-verdu (2009). and Kempf et al (2009)).

³ Lee and Tweedie (1981) explore how fund managers (insurance companies, pension funds, investment and unit trusts, merchant banks and stockbroking firms) make use of information. From annual reports and company site visits. They report that 44% of stock broking firms surveyed declare that their firms visited all companies in their portfolios. They also report that; about 62% of fund managers working in stock broking firms rated company visits as holding material weight in portfolio decision making in contrast to their counterparts in financial institutions. Holland and Doran (1998) stress the importance of recurring site visits. Roberts (2006) discusses the disciplinary effects of site visits to managers.

Using a sample of 938 US equity investment firms during the period 2008 through 2011 we find that company visits significantly enhance performance, management fees, and portfolio turnover. The incremental effects of site visits on excess returns for given fee levels is found to be positive. Site visits are also positively related to employee equity ownership. In addition, employee equity ownership is found to be inversely related to portfolio turnover. This supports the agency hypothesis that managers with greater personal stakes in their companies invest more time in collecting non-public information for longer-term commitments.

The organization of the paper is as follows. In the next section, we introduce our hypotheses. In section 3, we describe the data and methodology. Results follow in section 4. The paper concludes with a summary in section 5.

2. Hypotheses

Any information obtained during a visit to a company may well be unique in the sense that it may not be shared amongst other investors (both existing and potential) or other interested parties. On the other hand, published sources provide the same informational benefits to all users. Consequently, company visits would seem at first glance to be an extremely useful means of obtaining information in advance of other investors. We argue that company visits are vital in the decision making process, as they convey important private information to investment managers. Thus,

Hypothesis 1:

The frequency of company visits conducted by investment managers has a positive effect on the performance of the funds they manage.

Latzko (1999) and Gil-Bazo and Ruiz-Verdu (2009) focus on the operating expenses associated with funds management in testing for economies of scale effects, and note that the management fee paid to the fund's manager represents in part compensation for the expenses of portfolio management, which would include the cost of research. Such costs would be expected to be related to the time and travel costs associated with site visits. Company visits are hypothesized to be positively related to fund performance, as they are a means to generate pertinent private information. Since such visits entail costs to managers in terms of time, money, and effort as they use their skills and abilities to engage and probe the employees of investee companies, all of these factors are expected to be reflected in the management fees charged. Thus,

Hypothesis 2:

The number of company visits conducted by investment managers is positively related to the management fees charged.

Golec (1996) notes that a high frequency of portfolio turnover necessitates higher costs. Trueman (1988) notes that a fund manager's value is partly determined by trading prowess. The frequency of good trades depends on the rate at which new information is generated as well as the accuracy of such information. The investment manager will be motivated to trade more in order to gain more clients to the extent that skill is manifested in greater trading caused by new information flows (Kanodia, Bushman and Dickhaut (1986) and Trueman (1988)). Chevalier and Ellison (1999a) find that expenses (turnover) significantly reduce (increases) risk-adjusted excess returns, implying that the presence of

high expenses with low turnover signifies "managerial slack." To the extent that high expense and high turnover are associated with higher returns, one could assert that high expenses are being used for valuable "research" purposes which results in more trading activity. Thus,

Hypothesis 3:

The number of company visits conducted by investment managers is positively related to portfolio turnover.

3 Data and Methodology

3.1 Data

Brockhouse Cooper generously provided the data used for this study.⁴ Our focus in this study is on the US firms in their database, which comprises all firms with large, small, mid, and a mix of small and mid (smid) capitalization company mandates. Quarterly data were collected from the period March 2008 to March 2011. The initial sample consists of 1843 firm products, of which 491 were small caps, 949 were large caps, 247 were mid cap, and the remaining 156 were smid caps, totaling 5529 observations. Our sample is of particular interest since it begins with the onset of the liquidity crunch. Consistent with the incentives literature, a fund manager's skill is better revealed during market contractions (see e.g. Gottesman and Morey (2006)). The database provides a tally of company site visits per year, which we examine in the context of three performance variables: the firm's excess return; the firm's 4 year Jensen alpha, and the firm's 4 year Sharpe ratio. We also measure risk as reflected in the 4-year Beta. Firm characteristics include team size, manager experience, manager turnover, employee equity ownership, company age, total institutional

⁴ <http://www.brockhousecooper.com>

assets under management, the average number of securities held in the portfolio, the dividend yield, the market to book ratio, and the annual returns. We require that each firm have a history of at least 12 months of data. Management fees are based on the average rate specified from the firms' segregated schedule. Finally, we form a dummy variable for small and mid capitalization funds, with the variable taking on a value of 1 if the funds were small or midcap and zero otherwise. After merging the performance variables, the human capital variables, and fund characteristics variables we obtain a final sample of 938 firms with 2720 observations. This sample represents about 74% of assets under management of the ICI universe.

3.2 Methodology

Our study examines the impact of company site visits within a system in which performance, fees, risk, and portfolio turnover are jointly determined, extending Golec (1996), Chevalier and Ellison (1999), Gottesman and Morey (2006), and Switzer and Huang (2007). The dependent variables are taken in year t , while all the manager characteristics and actions, and the firm's characteristics are taken in year $t - 1$. The variables can be categorized into three groupings: a) human capital and structural capital; b) fund managers actions; and c) fund characteristics.

1) Human capital and structural capital:

Experience: is defined as the fund manager's investment experience. Previous studies have found a positive relationship between experience and risk taking (Golec (1996), Chevalier and Ellison (1999b), and Switzer and Huang (2007)) with older managers less concerned

about job tenure than their younger counterparts. Golec (1996) suggests that there is a negative impact of age on stamina that induces a positive (negative) relationship between experience and fees (turnover). Switzer and Huang (2007) also find a negative association between experience of the fund manager and portfolio turnover. Consistent with these precedents, we expect experience to have positive impact on fees and risk taking and a negative impact on portfolio turnover.

Team size: is defined as number of people involved in the mandate. We expect team size to have a positive relation to both management fees and turnover. Clearly larger teams require larger compensation. Furthermore, we expect that the frequency of trading will be positively related to team size, as greater information collection will result in greater perceived opportunities for active trading strategies.⁵

Manager turnover: is a measure of the frequency of change in the firm's managers since the firm's inception. Khorana (1996) finds that fund managers that are about to be terminated engage in more risk taking, and will display higher portfolio turnover, higher expenses and lower performance. Khorana (1996) relates managerial turnover to preceding fund performance. Chevalier and Ellison (1999b) find that manager turnover does not have a significant impact on the inflow of funds. We expect manager turnover to be positively related to the three performance measures to the extent that current managers correct the deficiencies of previous managers who were responsible for poor performance in the past.

⁵Neither Golec (1996) nor Khorana et al (2007) find a significant relationship between team size and performance.

We also expect managerial turnover to be negatively related to both systematic risk and portfolio turnover (see e.g. Khorana (1996)).

Employee equity ownership: this variable represents the managers' personal stake in the firms they manage. Khorana et al (2007) find that managerial ownership has a positive impact on performance. We also expect employee equity ownership to have a positive effect on performance. To the extent that systematic risk is related to returns, Beta should also have a positive effect. An inverse relationship between managerial ownership and portfolio turnover is expected to support the agency hypothesis that managers with greater personal stakes in their companies invest more in collecting private information for longer-term commitments.

2) Fund managers' actions:

Company visits: are defined as the frequency of fund managers' contact with companies that represent their investment opportunity set. We hypothesize positive relationships between visits, performance, management fees and turnover. More frequent visits conducted by fund managers should lead to the generation of more valuable private information that can serve as the basis to trade. However, more frequent site visits will entail higher management fees as compensation for the extra costs and effort entailed.

Portfolio turnover: is indicative of the amount of trading activity undertaken by the fund manager. Both Switzer and Huang (2007) and Golec (1996) report a positive association between turnover and Beta. However, they find no significant relation between turnover and Alpha. Carhart (1997) shows a negative relation between turnover and alpha. We predict that

portfolio turnover should have a positive effect on performance, management fees, and Beta. Portfolio turnover is also tested as an endogenous variable.

Number of securities held: is the average number of stocks held in a portfolio. Sapp and Yan (2008) report in their study of focused funds, that the number of securities held in a fund has a positive impact on performance. Cremers and Petajisto (2009) also include number of securities held in their tests of the value of active management and find that they have a positive effect on fund performance. We expect number of securities held to be associated with more exposure to systematic risk, higher management fees, and higher turnover.

Fund Beta: this captures non-diversifiable risk, relative to the portfolio benchmark. Since a fund manager has no control over market movements, the level of systematic risk he/she is exposed to and the subsequent performance of the fund(s) indicates the manager's ability to predict this risk, and choose stocks that are more (or less) risky according to their risk objectives. We consider Beta as an endogenous variable in the system.

3) Fund characteristics:

Fund age: is computed as the year the first account was launched from the fund year in the sample. The fund's age can be viewed as a reflection of its reputation, and the fidelity of its investors. Golec (1996) finds that fund age is positively associated with Beta, and negatively related to management fees. Similarly, Malhotra and Mcleod (1997) also find that older funds reduce expenses due to superior operating efficiencies. Following these precedents, we expect fund age to be negatively related to fees, and positively related to both systematic risk and performance.

Fund size: is measured as the natural logarithm of a firm's total institutional assets under management. Golec (1996) finds that fund size has a negative impact on management fees, consistent with economies of scale: as fund size grows, the prorated impact of expenses falls. Switzer and Huang (2007) show that size has a negative impact on performance, expenses, and turnover, and a positive effect on Beta. Fama and French (1993) document size as having a negative impact on the average returns of stocks. Consistent with these results, we expect that fund size will be negatively related to performance, and portfolio turnover, and positively related to Beta.

The book to market ratio: we use price to book as a control variable in the performance equation (as per Fama and French (1993)).

Dividend yield: is another variable cited in the literature as having weight in explaining average stock returns (e.g. Fama and French (1988), and Lewellen (2004)), and include it as well in the analyses.

The capitalization dummy variable takes on the value of 1 if it is a small or mid-cap fund and zero otherwise. Including this variable in the regressions allows us to explicitly test the effects of the size of firms on Beta, management fees, and turnover. Small caps have been a source of interest among academicians and practitioners due to their ostensible ability to outperform their large cap counterparts. Switzer and Huang (2007) show that small cap companies have higher systematic risk and higher expense ratios than mid-cap funds. Momentum factor: This variable is measured as the 1 year return of the fund during the period $t - 1$ (see e.g. Jegadeesh and Titman (1993)),

The following three performance measures are used:

Excess return: is the fund's return less the risk free rate.

4 year Sharpe ratio: this variable is measured as the excess return to the total risk of the fund.

4 year Jensen's alpha: this variable captures the average difference between the return of the manager and the return of a passive strategy of equal market absolute risk

3.2.1 Heteroscedasticity robust OLS procedure:

The cross sectional tests of how managerial actions and characteristics affect performance, risk, and management fees may be subject to heteroscedasticity. We correct for this potential problem in similar fashion to Chevalier and Ellison (1999a). This procedure is first performed in testing fund characteristics against manager characteristics.

The following equations are utilized:

$$\text{Fund Characteristics} = \text{Manager Characteristics} + \text{Manager Action} + \text{Capsize} + \varepsilon$$

The structural equations of our study representing performance, systematic risk, management fees and turnover are as follows: The performance equations are captured in (1a), (1b), and (1c).

$$\begin{aligned} \text{Excess ret} = & a_1 + a_2 (\text{Beta}) + a_3 (\text{manager turnover}) + a_4 (\text{company visists}) + \\ & a_5 (\text{employee equity owners}/\text{ip}) + a_6 (\text{portfolio turnover}) + \\ & a_7 (\text{log of total assets under management}) + a_8 (\text{fund age}) + a_9 (\text{management fees}) + \\ & a_{10} (\text{dividend yield}) + a_{11} (\text{market to book ratio}) + a_{12} (\text{momentum}) + \varepsilon_{1a} \end{aligned} \quad (1a)$$

$$\begin{aligned} \text{Jensen's Alpha} = & a_1 + a_2 (\text{Beta}) + a_3 (\text{manager turnover}) + a_4 (\text{company visists}) + \\ & a_5 (\text{employee equity owners}/\text{ip}) + a_6 (\text{portfolio turnover}) + \end{aligned}$$

$$a_7 (\log \text{ of total assets under management}) + a_8 (\text{fund age}) + a_9 (\text{management fees}) + a_{10} (\text{dividend yield}) + a_{11} (\text{market to book ratio}) + a_{12} (\text{momentum}) + \varepsilon_{1b} \quad (1b)$$

$$\begin{aligned} \text{Sharpe Ratio} = & a_1 + a_2 (\text{beta}) + a_3 (\text{manager turnover}) + a_4 (\text{company visists}) + \\ & a_5 (\text{employee equity ownership}) + a_6 (\text{portfolio turnover}) + \\ & a_7 (\log \text{ of total assets under management}) + a_8 (\text{fund age}) + a_9 (\text{management fees}) + \\ & a_{10} (\text{dividend yield}) + a_{11} (\text{market to book ratio}) + a_{12} (\text{momentum}) + \varepsilon_{1c} \quad (1c) \end{aligned}$$

The equation for the systematic risk exposure of the fund is:

$$\begin{aligned} \text{Beta} = & \\ & b_1 + \\ & b_2 (\text{average years of investment experience for most senior}) + b_3 (\text{manager turnover}) + \\ & b_4 (\text{employee equity ownership}) + b_5 (\text{portfolio turnover}) + \\ & b_6 (\log \text{ of total assets under management}) + b_7 (\text{fund age}) + \\ & b_8 (\text{avg number of securities held in portfolio}) + b_9 (\text{cap dummy}) + \varepsilon_2 \quad (2) \end{aligned}$$

The equations for portfolio turnover and management fees are given by:

$$\begin{aligned} \text{Turnover} = & \\ & c_1 + c_2 (\# \text{ of people involved in mandate}) + \\ & c_3 (\text{average years of investment experience for most senior}) + c_4 (\text{manager turnover}) + \\ & c_5 (\text{company visists}) + c_6 (\text{employee equity ownership}) + \\ & c_7 (\log \text{ of total assets under management}) + \\ & c_8 (\text{avg number of securities held in portfolio}) + c_9 (\text{cap dummy}) + \varepsilon_3 \quad (3) \end{aligned}$$

$$\begin{aligned} \text{Management Fees} = & \\ & d_1 + d_2 (\# \text{ of people involved in mandate}) + \\ & d_3 (\text{average years of investment experience for most senior}) + d_4 (\text{Excess ret/Sharpe/} \\ & \text{Jensen's alpha}) + d_5 (\text{company visists}) + \\ & d_6 (\text{avg number of securities held in portfolio}) + d_7 (\text{portfolio turnover}) + \\ & d_8 (\text{cap dummy}) + d_9 (\text{fund age}) + \varepsilon_4 \quad (4) \end{aligned}$$

We first provide heteroscedasticity consistent OLS results of fund characteristics versus manager characteristics and actions.

To account for the simultaneous determination of performance, risk, fees and turnover variables, as in Golec (1996), and Switzer and Huang (2007), we also perform the estimation using three stage least squares (3SLS). We estimate (2), (3), and (4) jointly with each performance equation, (1a), (1b), and (1c).

4. Empirical Estimation

4.1 Descriptive statistics

Descriptive statistics on the distribution of the sample are provided in Table 1. As shown therein, the mean assets under management for firms in the sample is \$1.2 billion. Average performance is negative across the firms, which reflects the turbulent market conditions during the period under investigation. Management team size ranges from a single manager to a team comprising 39 members. The experience levels of US fund managers in our sample range from 4 years to 49 years, while the average fund age is 13 years. On average, 521 company site visits were conducted by sample firms since the inception of their funds, while the average portfolio consists of 95 securities. The mean equity ownership of employees is 54%. Portfolio turnover averages about 81.5% per year; manager turnover averages 33% since the inception date of the funds. The fund dividend yield averages 1.64% while the management fees average 0.67% with a range of .004% to 8.3%.

[Please insert Table 1 about here]

4.2 Variable correlation matrix

Table 2 presents the correlation matrix of all the variables in our sample. Some noteworthy observations include the significantly positive correlation between employee

equity ownership and investment experience. We find a sizable positive correlation between the management fees charged and the firm's age, indicating that older firms are viewed as more prestigious, and hence are in a position to obtain higher fees for their services. We also find a negative correlation between portfolio turnover and firm age. Firm size is also strongly correlated to age, and team size. Investment firms specializing in small and mid-cap stocks also had higher excess returns and Sharpe ratios, reflecting perhaps the relative outperformance of their underlying investments during periods of recovery from recession (see Switzer (2010)). Small and mid-cap specialty firms also had lower dividend yields.

[Please insert Table 2 about here]

4.3 Heteroscedasticity Consistent OLS results of firm characteristics versus manager characteristics and actions

Table 3 shows that team size, investment experience, and frequency of visits, have a positive and significant (at the 1% level) impact on fees charged. On the other hand, manager turnover and employee equity ownership have negative effects. These results are consistent with expectations: firms with large employee cohorts and with more experienced managers, who perform more site visits demand greater compensation for their services. Manager turnover has a negative impact on fees charged. An inverse relationship between managerial ownership and portfolio turnover supports the agency hypothesis that managers with greater personal stakes in their companies invest more in collecting non-public information for

longer-term commitments. We also find employee equity ownership has a negative impact on fees charged. Finally, fees are found to be attenuated for small capitalization firms.

Team size and experience have negative effects on trading activity, as measured by portfolio turnover. Given our sample period, it is expected that the more experienced managers would prefer trading less during market downturns. Manager turnover and ownership also has a negative and significant impact on portfolio turnover. On the other hand, frequency of company visits positively and significantly (at the 5% level) affects portfolio turnover. This is consistent with our conjecture, that the more visits fund managers conduct, the more private information they have at their disposal leading to a greater number of trades.

Next, we find that team size and visits are significantly and positively related to fund size at the 1% level. In contrast, employee ownership has a negative and significant relationship with management fees and portfolio turnover.

[Please insert Table 3 about here]

4.4 Heteroscedasticity consistent OLS results of performance, risk, and fees equations

The heteroscedasticity consistent OLS results are presented in Table 4. Similar to Switzer and Huang (2007), fund size is negatively, though not significantly, related to fund performance. Management fees also have a positive and significant impact on the Sharpe ratio, along with the frequency of company visits, supporting our hypothesis that visits are positively related to performance. We also find that Beta is positively related to performance. Fund size has a negative impact on the Sharpe ratio, while momentum has a positive effect.

As expected, we find that visits have a positive and significant (at the 1% level) effect on portfolio turnover. This supports the idea that through visits, fund managers access private information which is not available otherwise, and the information extracted triggers more trading activity, consistent with Trueman (1988). The average number of securities held in the firm's portfolio and the small and mid-capitalization dummy also have positive impacts on turnover. Portfolio turnover is negatively and significantly related to experience, team size, managerial ownership, and fund size. Team size is also negatively related to turnover, although this result is only significant at the 10% level.

The Beta (systematic risk) equation estimates are in accord with expectations. Portfolio turnover has a significantly positive impact on Beta. However, while employee ownership also has a positive effect on Beta, it is not significant at conventional levels. Small and mid capitalization firms are less exposed to systematic risk.

The estimated fee equations are robust to the different performance measures used. Consistent with expectations, higher performance is associated with higher management fees. In addition, turnover has a negative impact on fees. Company site visits have a positive impact on fees along with team size, portfolio holdings, and fund age.

[Please insert Table 4 about here]

In sum, the heteroscedasticity consistent OLS results support all three of our hypotheses: a) that the frequency of company visits is positively related to performance as indicated by its positive effect on the Sharpe ratio; b) company visits are positively related to portfolio turnover; c) company visits contribute positively to management fees. Human

capital characteristics, including investment experience and team size are also found to have a bearing on performance, risk, and fees. Investment experience is negatively related to trading activity, team size has a negative impact on portfolio turnover and a positive impact on fees. Finally, managerial turnover and employee equity ownership negatively affect portfolio turnover.

4.5 Three-stage least squares results of performance, risk, and fee equations

The 3SLS results differ in a number of instances from the heteroscedasticity consistent estimates, signifying the existence of some simultaneous equation bias. Panel A of Table 5 shows, in contrast to Table 4, an inverse relationship between excess return and risk measured by Beta. The results from Table 5 are more in line with theory. Over the period of the sample the average excess return to the market was negative. Based on the CAPM, negative coefficient of Beta would capture the negative excess return to the market portfolio over the sample period. Visits, on the other hand, have a positive and significant impact **on all of the performance measures, including excess returns**. Second, we find that the fund Beta is significantly related to all of the human capital characteristics considered, including investment experience and employee equity ownership. The results of the turnover equation are qualitatively similar to the heteroscedasticity consistent estimates. We find that visits and the average number of securities held remain as significantly positive determinants of trading activity. This supports the hypothesis that company site visits are a source of private information that managers act on. The addition of a security in a portfolio leads to a 0.05% increase in trading. Moreover the significant capitalization dummy indicates that small and mid caps are 13.8% more active than their large cap counterparts. In contrast, investment

experience, employee equity ownership, and fund assets have a negative and significant impact on portfolio turnover at the 1% level.

In the fees equation we find that performance and company visits are significantly positively related to management fees. Portfolio turnover remains negatively related to management fees. In contrast to the OLS heteroscedastic consistent estimates, investment experience has a significantly negative impact on management fees in the 3SLS estimation.

Panel B of Table 5 shows that similar to the excess return equation, in the system with Jensen's alpha as the performance measure, both Beta and dividend yield have a negative effect on fund performance, although the dividend yield effect is not significant. As hypothesized, frequency of visits remains positively related to performance. Beta and portfolio turnover estimates are similar to the OLS heteroscedastic correction estimates. In contrast, in the management fee equation fund age and team size have significantly positive effects. This result highlights the idea that management fees grow as funds age and as the managing team expands.

Finally, Panel C of Table 5, presents the third system with the Sharpe ratio as the performance measure. Similar to the results with excess returns and Jensen's alpha as the dependent variable, Beta and dividend yield are negatively related to the Sharpe ratio in the 3SLS system. Visits have a positive impact that is significant at the 1% level. We also find that performance is negatively related to fund age. Momentum has a significantly positive impact on performance. Small and mid-capitalization funds charge 2.16% higher management fees than their large cap peers.

[Please insert Table 5 about here]

The three stage least squares simultaneous equation method of estimation strengthens the results that are supportive of our three hypotheses, namely that company site visits have positive and significant impacts on all three performance measures, as well as on the fees charged and portfolio turnover. Moreover, we find that investment experience shows a positive relation to the fund Beta and a negative, and significant, relation to both turnover and management fees, supporting the results of Chevalier and Ellison (1999b) and Golec (1996). While managerial ownership is positively related to Beta, it negatively impacts on portfolio turnover. The average number of holdings is positively related to Beta and portfolio turnover in all three systems.

5 Summary and Conclusions

This paper looks at the impact of company site visits conducted by US equity fund managers on the performance, management fees, and systematic risk of the sample of funds, taking into account human capital characteristics of the fund managers as well as the simultaneous interactions between performance, management fees and systematic risk, and portfolio turnover.

The results are consistent with our hypotheses: we find that company site visits do have a positive and significant impact on performance, management fees, and portfolio turnover. Visits provide incremental private information that is of value to the funds, which is acted upon through increased trading, holding constant the level of fees charged. Managerial ownership, however, serves to mitigate the propensity of fund managers to trade. This supports the agency hypothesis that managers with greater personal stakes in their companies

invest more in collecting private information for longer-term commitments. However, in contrast to Khorana, Servaes and Wedge (2007), we do not find that managerial ownership per se serves to significantly enhance the performance of the funds.

Whether site visits are of value for equity managers in other countries or their benefits are specialized to specific industries with varying degrees of intangible assets remain as topics for future research.

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Table 1: Sample Statistics

This table presents the summary statistics of all the variables used in the study. Sample comprises 938 US equity funds with 2720 observations. The fund performance measures include the excess returns, the 4 year Jensen's alpha, and the 4 yr Sharpe ratio all taken in year t , while all the human capital characteristics, namely, team size, investment experience in years, employee equity ownership (%), manager turnover (%), and frequency of visits are taken in year $t - 1$. The 4 year Beta captures the systematic risk of the funds. The rest of the variables are fund characteristics variables, that is, the fund's total institutional assets under management (in \$ millions), we also take the natural logarithm of the fund assets and use it as a proxy for fund size in our regressions. The average number of securities held, is measured by taking the average of the minimum number and the maximum number that can be held in a portfolio. Fund age is measured by subtracting the year the first account was launched from the first quarter of the fund year. Portfolio turnover (%) shows the number of times a fund turns over per year, the dividend yield shows the % of dividends paid, and the price to book ratio shows the relation between the stock's market price and its book value. The momentum measures the effects of the returns of the past on performance and is the annualized 1 year return prior to performance therefore it's taken in year $t - 1$. The management fees indicate the % of fees charged, it is expressed as a decimal and finally, capitalization is a dummy variable that takes on the value of 1 if the fund is a small, mid, or smid capitalization fund and zero otherwise.

Table 1

Variable	Mean	Median	Std Dev	Minimum	Maximum	Skewness	Kurtosis
<i>Performance measures</i>							
Excess Ret	-0.27	-0.04	9.60	-16.94	441.41	37.90	1745.54
Jensen's alpha	-0.14	-0.39	4.72	-14.37	163.95	17.40	598.30
Sharpe Ratio	-0.41	-0.43	0.27	-1.34	0.68	0.23	0.03
<i>Systematic risk</i>							
Beta	0.94	0.93	0.20	-1.02	3.41	0.40	16.71
<i>Human capital & Actions</i>							
Team size	7.34	6.00	5.70	1	39	2.42	7.71
Experience	17.30	17.00	5.68	4	49	0.81	1.31
Employee Equity ownership	54.44	64.00	43.61	0	100	-0.17	-1.74
Manager Turnover	32.65	4.00	191.76	0	3300	14.47	220.46
Visits	545.87	60.00	1753.50	0	10000	4.86	23.08
<i>Fund characteristics</i>							
Fund assets under management (in millions)	1212.10	347.79	3321.10	0.04	90375.70	13.02	272.75
Log fund assets	5.58	5.85	2.11	-3.22	11.41	-0.87	1.35
Avg securities held	94.74	62.50	113.30	10	1854	6.63	74.94
Fund age	13.24	11.25	9.65	1.25	85.25	2.22	9.54
Portfolio Turnover	80.92	64.00	65.49	0	896.40	2.88	18.74
Dividend Yield	1.64	1.45	1.78	0	63.27	20.46	646.91
Price to Book ratio	2.53	2.24	2.29	0.05	99.90	31.77	1338.06
Momentum	-3.81	-14.17	23.92	-60.67	100.91	0.85	-0.20
% of fees charged expressed in decimals	0.01	0.01	0.005	0.00004	0.08	11.10	160.49
Capitalization	0.47	0.00	0.50	0	1	0.12	-1.99

Table 2: Correlation Matrix

This table shows the correlation matrix of the variables used in the study; *** (**) denotes significance at .001 (.05) level

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	
Excess Ret (1)	1.00																		
Jensen's alpha (2)	.73***	1.00																	
Beta (3)	.26***	.27***	1.00																
Sharpe Ratio (4)	.18**	.52***	.03	1.00															
Team size (5)	.00	.02	.07**	.01	1.00														
Experience (6)	.01	.00	-.02	.06**	-.3***	1.00													
Visits (7)	.01	.06**	.11***	.06**	-.04**	-.05**	1.00												
Employee Equity own (8)	-.01	.00	.00	.03	-.04**	.19***	.13***	1.00											
Avg securities held (9)	-.02	-.09**	.04	-.12***	-.03	-.03	-.03	-.14***	1.00										
Fund age (10)	.00	.01	-.02	.02	.09**	.12***	.04**	-.05**	-.07**	1.00									
Portfolio Turnover (11)	.01	-.01	.11***	-.05**	-.05**	-.17***	.04**	-.10***	.10***	-.25***	1.00								
Manager Turnover (12)	.00	-.01	.01	-.02	-.09**	.03	.06**	-.04**	-.01	.00	-.01	1.00							
Dividend Yield (13)	-.04	-.08**	-.08**	-.11**	.01	.02	-.04**	-.08**	.06**	.01	-.12***	-.01	1.00						
Price to Book ratio (14)	.02	.05	-.03	.03	.01	-.05	-.03	.04	-.07**	.01	.04**	.00	-.11***	1.00					
Management Fees (15)	.00	.04**	.03	.09**	.14***	.01	.13***	-.04	.00	.29***	-.10***	-.02	.03	.00	1.00				
Momentum (16)	.03	.04**	.05**	.54***	-.01	.09**	.01	.00	-.03	.07**	-.08**	.00	-.16**	.08**	.07**	1.00			
Log fund assets (17)	-.01	-.02	.04**	-.09**	.21***	-.09**	.16***	-.12***	.12***	.35***	-.10***	-.01	.02	.02	.49***	.01	1.00		
Capitalization (18)	.11***	.17***	-.02	.27***	.01	-.09**	-.03	.08**	.03	-.11***	.11***	-.03	-.24***	-.10***	-.10***	.02	-.12***	1.00	

Table 3: Fund vs. Manager Characteristics

This table shows regressions of various fund characteristics vs. the fund manager's characteristics and actions. Each regression is tested with (Model 1) and without the capitalization dummy (Model 2) The interpretations of these results generally focus on Model 1 of each regression. n represents the number of observations, followed by the F value and r square of the regressions. All standard errors are reported in parentheses. *, **, *** indicate significance level at the 10%, 5%, and 1% respectively.

Independent Variables	Dependent Variables							
	Management Fee		Portfolio Turnover		Log Fund assets		Beta	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept	1.80797	0.63388	126.3794	134.6515	5.58611	5.36657	0.92625	0.92205
	1.55	0.49	(19.81)***	(21.54)***	(29.15)***	(28.82)***	(55.09)***	(55.88)***
Team size	0.49456	0.49583	-0.95364	-0.96285	0.09326	0.09382	0.00244	0.00245
	(6.5)***	(6.48)***	(-3.47)***	(-3.55)***	(10.42)***	(10.41)***	(3.35)***	(3.35)***
Experience	0.19371	0.21276	-2.30965	-2.4211	-0.01126	-0.00778	-0.00033	-0.00026
	(3.11)***	(3.26)***	(-8.15)***	(-8.47)***	-1.23	-0.84	-0.36	-0.28
Visits	0.00124	0.00127	0.0015	0.00131	0.00022	0.000225		
	(6.79)***	(7.06)***	(2.56)**	(2.29)**	(10.14)***	(10.62)***		
Manager Turnover	-0.0014	-0.0013	-0.00543	-0.00624	-4.4E-05	-2.3E-05	1.33E-05	1.37E-05
	(-3.86)***	(-3.81)***	(-1.87)*	(-2.31)**	-0.35	-0.19	1.5	1.55
Employee Equity own	-0.02866	-0.031	-0.11867	-0.10059	-0.00757	-0.00801	3.54E-05	2.76E-05
	(-3.67)***	(-3.99)***	(-3.88)***	(-3.3)***	(-7.48)***	(-7.89)***	0.34	0.28
Capitalization	-1.97566		15.37708		-0.36537		-0.00699	
	(-3.21)***		(5.53)***		(-4.23)***		-0.83	
n	2025	2025	1986	1986	2071	2071	2415	2415
F value	(20.98)***	(23.22)***	(23.68)***	(21.84)***	(45.72)***	(51.01)***	(2.7)**	(3.21)**
r square	0.0587	0.0544	0.067	0.0523	0.1173	0.1099	0.0056	0.0053

Table 4: Heteroscedasticity consistent OLS results of performance, risk and fees

This table shows the first methodology employed which is the ordinary least squares methodology with heteroscedasticity robust standard errors reported in parentheses. Three different performance measures are employed, namely, the excess returns, the 4 yr Jensen's Alpha, and the 4 yr Sharpe ratio. The 4 yr Beta regression represents the systematic risk of the fund while the portfolio turnover regression shows the trading activity of the funds, and finally the management fees equations are tested three times using a different performance measure in the equation each time. Model 1 is the management fee equation using excess return as the measure of performance, Model 2 uses Jensen's alpha as the performance measure and Model 3 uses the Sharpe ratio as the performance measure. n represents the number of observations, followed by the F value and r square of the regressions. All standard errors are reported in parentheses. *, **, *** indicate significance level at the 10%, 5%, and 1% respectively.

Independent Variables	Dependent Variables							
	Performance			Risk	Turnover	Management Fees		
	Excess Ret	Jensen's alpha	Sharpe Ratio	Beta	Portfolio Turnover	Model 1	Model 2	Model 3
Intercept	-18.44215 -1.25	-7.81821 -1.46	-0.33381 (-7.23)***	0.89742 (40.34)***	141.06036 (16.12)***	-0.7434 -0.58	-0.54326 -0.4	2.89017 (1.8)*
Beta	19.99022 1.25	9.50882 1.65	0.0694 (1.99)**					
Excess ret						0.01957 (1.81)*		
Jensen's alpha							0.12362 (1.9)*	
Sharpe ratio								6.67224 (5.4)***
Portfolio turnover	-0.00504 -0.85	-0.00563 (-2.23)**	-8.8E-05 -0.9	0.000294 (3.51)***		-0.01271 (-3.58)***	-0.01314 (-3.55)***	-0.01074 (-3)***
Management fees	0.01352 1.16	0.03102 (3.24)***	0.00342 (4.84)***					
Visits	-0.0001938 -1.03	3.456E-05 0.47	5.76E-06 (2.46)**		0.0023 (3.75)***	0.00108 (6.29)***	0.00107 (6.19)***	0.00102 (6)***
Experience				0.000338 0.4	-2.32647 (-8.21)***	0.02409 0.4	0.02305 0.37	0.000788 0.01
Team Size					-0.53813 (-1.86)*	0.40417 (6.03)***	0.40249 (5.92)***	0.39606 (5.84)***

Employee Equity Own	-0.00844	-0.00336	0.000131	0.000206	-0.13929				
	-0.82	-0.83	1.05	(1.92)*	(-4.27)***				
Manager Turnover	-5.696E-05	-0.00025	-2.1E-05	3.38E-06	-0.00623				
	-0.16	-1.22	-0.91	0.38	(-2.36)**				
Securities held				4.07E-05	0.04572	0.0042	0.0053	0.00636	
				1.49	(3.03)***	(2.03)**	(2.17)**	(2.53)**	
Fund age	0.01395	0.01452	0.000414	-1.7E-05		0.37392	0.36844	0.36363	
	0.96	(1.66)*	0.66	-0.04		(8.93)***	(8.45)***	(8.37)***	
Dividend Yield	-0.04724	-0.21734	-0.00786						
	-0.22	-1.33	-0.99						
Price to Book	0.07771	0.06492	-0.00239						
	0.77	1.15	-0.68						
Log fund assets	-0.01204	-0.15481	-0.02363	0.00226	-3.62372				
	-0.1	(-2.48)**	(-6.4)***	1.01	(-4.65)***				
Momentum	0.00663	0.00135	0.00584						
	0.85	0.28	(24.23)***						
Capitalization				-0.01932	13.93989	-1.51576	-1.79312	-2.70483	
				(-2.13)***	(4.83)***	(-2.46)**	(-2.83)***	(-3.87)***	
n		1697	1697	1697	2080	1873	1877	1816	1816
F value	(19.7)***	(25.3)***	(78.75)***	(3.07)***	(23.09)***	(30.31)***	(28.58)***	(31.53)***	
r square		0.1139	0.1417	0.3395	0.0117	0.0902	0.1149	0.1123	0.1225

Table 5: 3SLS estimates of model that endogenizes performance, risk fees, and turnover. This table shows the three stage least squares estimates of the model that endogenizes performance, risk, and fees and portfolio turnover. We utilize three systems in this procedure in order to test the three performance measures: the fund's excess return, the 4 yr Jensen's alpha and the 4 yr Sharpe ratio. For each system, n represents the number of observations, followed by the F value and r square of the regressions. All standard errors are reported in parentheses. *, **, *** indicate significance level at the 10%, 5%, and 1% respectively. Panels A, B and C of table 5 represent the 3SLS results with Excess return, Jensen's alpha, and the Sharpe ratio as the performance measures respectively.

Panel A: 3SLS Results using the Excess return as the performance measure

Independent Variables	Dependent Variables			
	Excess ret	Beta	Management Fees	Portfolio Turnover
Intercept	140.8497 (3.02)***	0.575369 (9.89)***	46.26114 (2.87)***	130.114 (18.18)***
Excess ret			6.693938 (2.82)***	
Beta	-140.305 (-3.47)***			
Portfolio Turnover	-0.1309 (-1.77)*	0.002628 (6.41)***	-0.28004 (-2.62)***	
Management Fees	-0.5018 -1.32			
Company Visits	0.001666 (2.84)***		0.001635 (2.53)**	0.002686 (3.91)***
Experience		0.0053 (4.41)***	-0.84862 (-2.34)**	-1.97797 (-7.41)***
Team size			0.3934 1.64	-0.22187 -0.89
Employee Equity Own	-0.00249 -0.16	0.000618 (5.1)***		-0.12193 (-3.78)***
Manager turnover	-0.00277 -1.58	0.000011 0.56		-0.0054 -0.94
Securities held		0.000056 (1.9)*	-0.00352 -0.46	0.05742 (4.93)***
Fund age	-0.13437 -1.07	0.000319 0.51	0.096111 0.55	
Dividend Yield	-2.27588 (-1.88)*			
Price to book	-0.1729 -1.12			
Log fund assets	1.829638 1.55	0.007961 (3.1)***		-3.66438 (-5.23)***
Momentum	-0.02308 -1			
Capitalization		-0.05195 (-4.52)***	-10.9043 (-2.01)**	13.88212 (5.06)***
n	1689	1689	1689	1689
F value	0.44	(3.05)***	(2.54)***	(19.87)***
r-square	0.00291	0.01431	0.01194	0.08643

Panel B: 3SLS Results using Jensen's alpha as the performance measure

Independent Variables	Dependent Variables			
	Jensen's alpha	Beta	Management Fees	Portfolio Turnover
Intercept	83.09009 (2.88)***	0.594045 (10.04)***	17.18657 (3.49)***	145.135 (20.57)***
Jensen's alpha			-1.13724 -1.16	
Beta	-82.8559 (-3.31)***			
Portfolio Turnover	-0.03413 -0.76	0.002592 (6.29)***	-0.17491 (-5.92)***	
Management Fees	-0.04699 -0.22			
Company Visits	0.000887 (2.55)**		0.001465 (6.25)***	0.003093 (4.53)***
Experience		0.004904 (4.07)***	-0.31405 (-3.23)***	-2.10601 (-7.9)***
Team size			0.308779 (4.17)***	0.034386 0.14
Employee Equity Own	0.01252 1.23	0.000651 (5.13)***		-0.07648 (-2.49)**
Manager turnover	-0.00057 (-0.39)*	0.000015 0.72		-0.00243 -0.45
Securities held		0.000084 (3.3)***	0.004136 1.37	0.06507 (5.55)***
Fund age	-0.0517 -0.67	0.000911 1.45	0.312625 (5.91)***	
Dividend Yield	-1.2241 -1.65			
Price to book	0.066528 0.63			
Log fund assets	-0.12813 -0.19	0.004181 1.54		-6.72884 (-10.1)***
Momentum	-0.01523 -1.08			
Capitalization		-0.05238 (-4.55)***	2.835341 (1.69)*	12.20525 (4.45)***
n	1689	1689	1689	1689
F value	0.84	(3.05)***	(29.6)***	(19.87)***
r square	0.00551	0.01431	0.12355	0.08643

Panel C: 3SLS Results with Sharpe ratio as the performance measure

Independent Variables	Dependent Variables			
	Sharpe Ratio	Beta	Management Fees	Portfolio Turnover
Intercept	8.206976 (3.81)***	0.55325 (9.34)***	25.48379 (7.39)***	152.1646 (22.02)***
Sharpe Ratio			-2.34542 -0.99	
Beta	-8.44696 (-4.53)***			
Portfolio Turnover	-0.00501 -1.49	0.002635 (6.38)***	-0.238 (-8.37)***	
Management Fees	-0.00326 -0.22			
Company Visits	0.00009 (3.56)***		0.00145 (7.91)***	0.00313 (4.59)***
Experience		0.00551 (4.57)***	-0.44338 (-5.17)***	-2.20254 (-8.28)***
Team size			0.278174 (4.15)***	0.116371 0.47
Employee Equity Own	0.000412 0.54	0.000539 (4.28)***		-0.03596 -1.26
Manager turnover	-0.00011 -1.06	8.82E-06 0.42		-0.00011 -0.02
Securities held		0.000085 (3.68)***	0.002862 0.97	0.06969 (5.95)***
Fund age	-0.01197 (-2.08)**	0.00056 0.89	0.230788 (5.94)***	
Dividend Yield	-0.13521 (-2.43)**			
Price to book	-0.00447 -0.61			
Log fund assets	0.019841 0.42	0.010636 (3.95)***		-8.17967 (-13.28)***
Momentum	0.004333 (4.2)***			
Capitalization		-0.05001 (-4.34)***	2.167356 (2.25)**	11.21842 (4.1)***
n	1689	1689	1689	1689
F value	(4.38)***	(3.05)***	(30.32)***	(19.87)***
r square	0.02792	0.01431	0.12617	0.08643