

IS QUALITATIVE ANALYSIS OF FUND MANAGERS A RELIABLE INDICATOR OF FUTURE RELATIVE RETURN?

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Quantitative analysis of fund manager performance has been seen for some time as not being a reliable predictor of future performance, but there is a sizeable global industry that carries out qualitative analysis for investors that has as its objective the identification of superior fund managers. We have analysed the sustainability of the commonly used qualitative characteristics used to analyse Australian equity fund managers using cladistics analysis, and concluded that the characteristics commonly used are not a reliable indicator of superior or inferior performance.

Introduction

The unreliability of historical investment performance of fund managers as an indicator of future performance has been established for some time. Jones (2016) indicated that when they tested out of sample value added by mutual funds the predictability fell by 75 per cent, which is no great surprise given the analysis of Fama and French (2010) which concluded that outperformance was a matter of luck in the data they analysed, and Pfeiffer and Evensky (2012) who found that mean reversion of managers' performances dominated persistency. While these studies indicate quantitative analysis of fund managers' outperformance as a predictive tool is unreliable there is still a very significant global industry that offers advice to investors on the qualitative aspects of fund managers. To quote an advisor from their web site: 'mutual fund analysis, both qualitative and quantitative, attempts to identify skilful active managers', and another: 'this process involves three steps, including initial screening, quantitative analysis and qualitative analysis that is utilised to distinguish the most attractive mutual funds within an asset class and investment style'. Jenkinson et al (2016) used regression analysis to test what factors might be driving consultants' recommendations on selecting fund managers for US institutional clients and whether the consultants' recommendations added value. Jenkinson et al (2016) concluded that both past performance and what they described as

'soft factors' were important drivers of the consultants' recommendations, but they then concluded that the consultants most likely did not add value from their manager selection process. One of the reasons that the consultants may not be able to add value is that the underlying drivers of superior and inferior performance by fund managers may not be stable. This paper tests the hypothesis that qualitative analysis of fund managers is predictive of future outperformance or underperformance using a technique that identifies consistency of characteristics that drive outperformance and underperformance of Australian equity fund managers over the period 2008-2016.

Methodology

Our analysis is based on the hypothesis that if there is consistency in outperformance or underperformance then this must be primarily based on unique characteristics that can be shown to relate to managers with outperformance and managers with underperformance. We have used the qualitative database for Australian equity fund managers maintained by an international research business, together with their quantitative data for the same fund managers. The type of the information provided is shown in Table 1.

Observation of the information provided by other fund manager research organisations would suggest there is a significant commonality across the industry as to qualitative factors that are analysed. From the information provided by the research organisation from which we sourced the qualitative and quantitative data, we determined a set of typical characteristics that are used to describe Australian equity fund managers processes and attributes. The characteristics used are:

TABLE 1: TYPICAL QUALITATIVE INFORMATION PROVIDED

Qualitative information provided	Description
Investment process	How the investment process works
Portfolio construction	The extent to which the portfolio might deviate from weightings in the appropriate index
Implementation	How the investment decisions are implemented
Business management	Strength of the business based on ownership and resources
ESG rating	The extent to which ESG is applied

TABLE 2: FUND MANAGER CHARACTERISTICS

Characteristics	Definition
Cap bias	Portfolio has a focus on a particular market capitalisation sector
Boutique business	Fund manager is a boutique type business
Significant tracking error	Denoted by the research house
Quantitative bias	Initial quant screening, model forecasts and optimisation used
High portfolio turnover	Annual portfolio turnover of over 70 per cent
Broker input	Broker input is used in the research process
ESG process	An ESG Rating of more than 2 rated by research house
Concentrated portfolio	A portfolio consisting of 35 stocks or fewer
Allow shorting	Allow short position in the portfolio
Value bias	The portfolio has value bias as suggested by research house

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Based on the information provided by the research organisation, each manager was assigned the characteristics from Table 2 that were appropriate. The data for all managers was then used to undertake a logit regression analysis to determine the significance of each characteristic. As well, an alternative analysis using a cladistics process was then undertaken to identify the extent of common characteristics across managers and the stability of the key characteristics across time. The managers were separately analysed for those outperforming the relevant benchmark and those underperforming the relevant benchmark to identify consistency or inconsistency between these groups of managers.

Data

Our data covered 118 Australian equity managers and we used the performance for the ten years to December 2016 and the benchmarks indicated by each manager in the qualitative data we had available. We analysed the characteristics for managers outperforming and underperforming their benchmarks over three-year periods to allow for investment management processes that have an investment horizon longer than one year. The number of managers outperforming over the three-year periods is shown in Table 3 and it can be seen that the numbers vary, even allowing for the commonality of years included in the consecutive three-year periods.

Three years ending	Number outperforming
2010	38
2011	41
2012	37
2013	56
2014	83
2015	80
2016	62

Logit regression analysis

Using the characteristics in Table 2 and an additional characteristic for outperformance (0 = underperformance, 1 = outperformance), we ran a logit regression analysis for three year rolling periods and for the total period for which we had data and calculated the characteristic weights. The p values are summarised in Table 4.

TABLE 4: p VALUES FOR LOGIT REGRESSION¹

Characteristic	Three years ending 2016	Three years ending 2015	Three years ending 2014	Three years ending 2013	Three years ending 2012	Three years ending 2011	Three years ending 2010	Three years ending 2009
Intercept	0.73	0.02	0.02	0.18	0.10	0.26	0.02	0.00
Cap bias	0.91	0.32	0.03	0.01	0.00	0.26	0.21	0.00
Value bias	0.32	0.02	0.13	0.30	0.94	0.74	0.26	0.07
Significant tracking error	0.00	0.79	0.40	0.28	0.71	0.37	0.71	0.53
Boutique business	0.71	0.72	0.13	0.46	0.36	0.52	0.11	0.85
Quantitative bias	0.47	0.89	0.21	0.11	0.16	0.89	0.01	0.27
Broker input	0.28	0.84	0.30	0.37	0.55	0.90	1.00	0.91
High portfolio turnover	0.27	0.77	0.93	0.75	0.68	0.44	0.65	0.75
Concentrated portfolio	0.27	0.65	0.12	0.64	0.17	0.99	0.72	0.05
ESG process	0.38	0.31	0.03	0.21	0.66	0.26	0.81	0.06
Allow shorting	0.51	0.91	1.00	0.18	0.10	0.26	1.00	0.37

The results in Table 4 indicate:

for the three years ending 2016, a significant tracking error was indicative of outperformance

for the three years ending 2012, a capitalisation bias was indicative of outperformance

for the whole period 2010-2016, a capitalisation bias was indicative of outperformance.

The logit regression analysis indicates the typical qualitative indicators are unstable indicators of outperformance of Australian equity managers. It needs to be appreciated that the weights assigned to the characteristics in the logit regression are derived from a distribution of weights as the analysis is considering several fund managers' characteristics and performance, and unless the p value is very close to zero then the resultant weight for the aggregate will not be the same as the weight for individual managers. The consequence is that unless the p value for a characteristic in this analysis is close to zero, then the result is not indicative of outperformance for any particular manager. To overcome the inability of logit regression to identify outperforming managers, we will introduce an analysis adopted from evolutionary analysis that simply identifies if characteristics exist or not in an outperforming or underperforming manager.

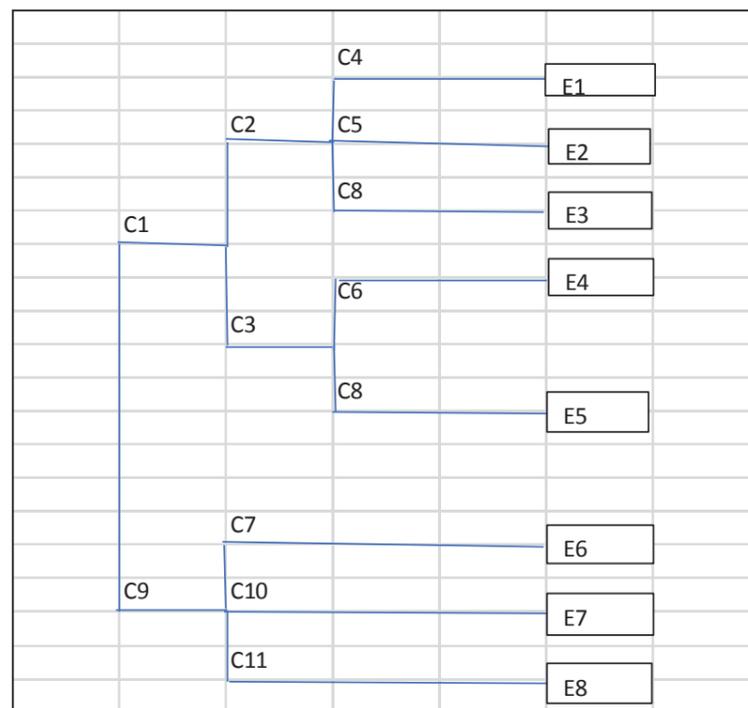
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Cladistics analysis

Cladistics analysis was originally developed to assist biologists to estimate the likely evolutionary path of animals based on their characteristics (McCarthy et al 2000), but it has recently been used successfully to understand how organisations work (Mitleton-Kelly 2003; McCarthy and Gillies 2004), analysing cultural inheritance in social systems (Matthews 2013), and emerging risk management in the financial system (Cantle 2013). When applied outside biology, cladistics analysis simply links the characteristics of the events being analysed to find the extent of commonality of characteristics across the universe of events. It produces a hierarchical structure of the characteristics starting from the characteristic that is unique to an event, and moving through the characteristics that are common to several events until it determines the characteristic common to the most events that is possible. The output of a cladistics analysis is typically a tree structure that makes it easy to see the linkages that are estimated to have occurred. Figure 1 shows a simple illustrative cladistics tree for a series of events E1-E8, and their characteristics C1-C11. In this simple system, Event 1 has characteristics C1, C2 and C4 and shares C2 with Events 2 and 3, and C1 with Events 2, 3, 4 and 5. C1 and C9 can be regarded as the systemic characteristics, i.e., they are the most common characteristics, while C4, C5, and C8 are the least systemic. Real systems usually are a lot more complex than shown in Figure 1 with several branches between the systemic and least systemic or unique characteristics.

The important characteristics derived from the cladistics analysis of fund managers are the systemic characteristics as they apply to a group of managers, i.e., they are more likely to drive relative performance than other characteristics. The systemic characteristics are summarised in Table 5².

FIGURE 1 TYPICAL CLADISTICS TREE



The results in Table 5 suggest that the systemic characteristics are frequently common for both outperforming and underperforming managers and that there is no consistency across time as to specific characteristics for outperforming or underperforming managers. The inference from this result is that it is not possible to predict outperforming and underperforming managers on a three-year basis, using the systemic characteristics.

TABLE 5: SYSTEMIC CHARACTERISTICS, THREE YEAR PERIODS³

Systemic characteristic	2010	2011	2012	2013	2014	2015	2016
Cap bias	B	O	O	O	B	O	B
ESG process	B	B	B	O	O	B	O
Value bias		O	U	B	B	B	B
Boutique	U	O	U	B	B	O	U
High turnover				O	U	U	U
Significant benchmark deviation		U		U		U	O
Broker input	B	O	U			O	
Concentrated portfolio				U	U	O	
Quant bias	U		O	U	O	O	B
Allow shorting							

Conclusion

Both the logit regression analysis and the cladistics analysis indicate there is no consistency across the characteristics considered between outperforming and underperforming Australian equity fund managers. The cladistics analysis has for the first time provided a basis for analysis that can assess the relative importance of characteristics of fund managers on an individual manager basis. The analysis has clearly identified that the commonly used characteristics of Australian equity fund managers are unable to discern managers with sustainable outperformance or underperformance as a lot of the characteristics are common to both groups. This result brings into question the value of qualitative analysis in selecting Australian equity fund managers, and may well apply to other asset sector managers.

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