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## DOES MUTUAL FUND MANAGER'S ATTRIBUTES IMPACT FUND PERFORMANCE? EVIDENCE FROM INDIA

**Keywords:** mutual fund, managerial attributes, fund performance, managerial qualification, work experience, India.

**J E L Classification:** G11, G15, G23.

**Abstract:** This paper examines the impact of two managerial characteristics – qualification and work experience on the fund performance of various mutual fund schemes in India. We analyse 1508 fund managers during the period 2005–2018 using panel

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OLS regression. Our results suggest that work experience of the managers positively affects the performance of the open-ended schemes. After segregating the data into different schemes and different qualification categories, we find that the number of years, for which the manager is handling a scheme, is positively related to fund performance for almost all the schemes and qualifications. Further, we find evidence to support the notion that better quality of education and specialised courses also contribute to improving the fund performance. In India, the mutual fund industry is expected to grow at an exponential rate in the coming years, and this study provides an insight into the characteristics of the fund managers impacting the performance of such funds.

### ■■■ INTRODUCTION

Investors' decision to invest in the mutual fund schemes are in general based on their objective to invest, be it tax savings, steady flow of income, capital appreciation, etc. However, while choosing a specific scheme there are certain other factors influencing the investment decision of the investor; of which performances, as usually proxied by fund returns, (necessarily risk-adjusted-returns), is the most important. There are a number of factors influencing the performance of the fund, one of them being the attributes of the corresponding fund managers. This topic has been central to the research of many studies, where they investigate if some managers are better than the others; Chevalier and Ellison (1999b), Gottesman and Morey, (2006), Switzer and Huang (2007), Fang and Wang (2015); among many other studies focused on analysing the managerial characteristics influencing funds' performance.<sup>1</sup> The central idea of such studies is that if one considers mutual fund managers as skilled professionals (just like any other professionals like doctors or statisticians), it is not difficult to postulate that some managers may perform better than others, due to their possession of different degrees of skills. Determinants of such skills could be their education, experience, and so on. Thus, these attributes can also affect their performance (Chevalier & Ellison, 1999b).

Given the above arguments, many researchers have tried to figure out whether some mutual fund managers are better than others by studying the relationship between fund performance and fund manager's personal charac-

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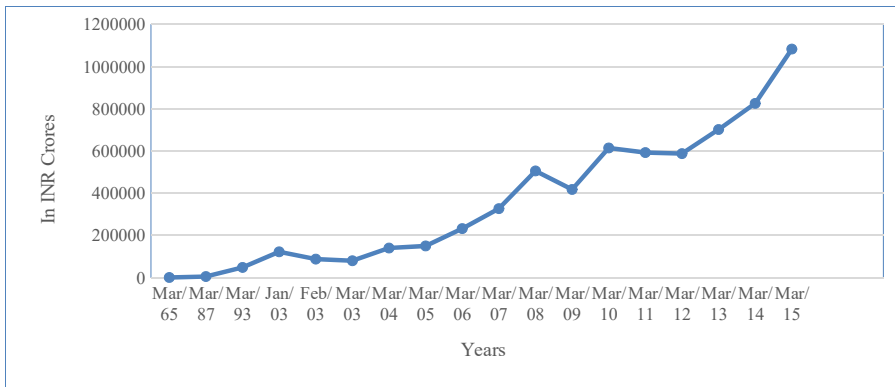
<sup>1</sup> Moreover, one of the widely accepted theories, the human capital theory, works on the assumption that formal education is highly instrumental and necessary to improve productivity.

teristics. Golec (1996), in one of the pioneering studies, finds that managers with an MBA tend to outperform others; however, the study also reveals that having an MBA is not enough as there are other aspects such as the institution from where the MBA is obtained, years of experience, the number of organisations in which the manager has worked, etc., which impact the fund performance. Chevalier and Ellison (1999b) suggest that managers with MBAs outperform others, and a significant portion of the higher returns is achieved by younger managers. Better performance of younger managers can be attributed to the fact that they are more likely to be fired for poor performance and they have the pressure of working hard as they have longer career ahead of them. Gottesman and Morey (2006) find that managers holding MBA degree from the top 30 schools of the Business Week rankings of MBA programs exhibit superior performance than those without MBA degrees or those with MBAs from unranked programs.

In this paper, we examine the relationship of the two major attributes of the managers, his<sup>2</sup> qualification and work experience, with the performance of various schemes in India. The study assumes importance in this context as in spite of being one of the most prominent emerging markets, the mutual fund penetration ratio [Asset under management (AUM) to GDP] in India is significantly lower at just 11 percent in comparison to the global average of 55 percent; this leaves enough opportunity for strong growth (The Telegraph, 2021). (Refer figure 1) Further, the AUM of India's mutual fund (MF) industry is likely to grow exponentially in the coming years. Veeravel and Mohanasundaram (2020) also highlight the importance of the mutual fund industry and the institutional environment of India. This motivates us to examine managerial attributes as important factors influencing the fund performance.

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<sup>2</sup> Here, 'his' implies both his/her. However, in the sample as well as in the Mutual Fund Industry more than 95% fund managers are male.

**Figure 1.** Growth in Assets under Management

Source: Sayyad, 2020.

We contribute to the literature not only by segregating the manager's qualification on the basis of whether they are MBA or not, but also taking into account the educational qualification of the managers at graduation level. Most importantly, we differentiate among the qualifications of the managers on the basis of the repute of the institutions. Bachelor of Technology (B.Tech) from any Indian Institute of Technology (IITs), and MBA from any Indian Institute of Management (IIMs), are considered to be the most valued since these are the most reputed and prestigious institutions in the country for engineering and management courses respectively. Therefore, considering exponential growth of the assets under management in the last two decades in India which points towards growing popularity and increasing investments by retail investors, who own about 90% of the total MF accounts in the country, it is worth investigating if manager attributes can influence the performance of various schemes in the country.

Similar to Gottesman and Morey (2006), Fang and Wang (2015), Barber, Scherbina and Schlusche (2017), we find that the managers from premium institutes like IITs, IIMs perform better than the managers who are B. Tech or MBA from other institutions. Our findings suggest that the years since a manager has been handling the scheme is an important proxy of his work experience which improves the fund performance. This study has practical implications for the investors to also look at the profile of the managers handling the schemes in terms of their educational qualification and work experience. Fur-

ther, this study can guide the growing number of the asset management companies to consider manager-specific characteristics while assigning them different schemes.

### LITERATURE REVIEW

Literature provides evidence on various managerial traits impacting the corporate financial policies (Malmendier, Tate & Yan, 2011; Schoar, 2007; Rakhmayil & Yuce, 2008). The impact of managerial characteristics is not limited to financial policies of the firms, but to the performance of hedge funds and mutual funds as well. Maxam, Petrova, Nikbakht and Spieler (2005) analyse 147 hedge funds and find that managers with degrees from top US schools perform better than others; however, those with undergraduate degrees in economics and that too from top ranked schools significantly underperform their peers. Recent and previous studies have focused on the traits of fund managers affecting the mutual fund performance. Characteristics of the fund managers like age, gender, race, skin colour, education, work experience, etc, impact the performance; two managerial characteristics have been majorly explored in the literature: whether a manager holding a CFA degree adds value in portfolio performance, and those with an MBA degree improves the fund performance (Chevalier & Ellison, 1999b; Gottesman & Morey, 2006; Holland, 2006; Philpot & Peterson, 2006; Switzer & Huang, 2007; Fang & Wang, 2015; Chekenya & Sikomwe, 2020).

Chevalier and Ellison (1999b) analyse the relationship between performance and manager characteristics. They posit that like any other skilled professionals, some mutual fund managers are expected to perform better than others such that managers from undergraduate institutions with higher average student SAT scores yield higher returns. In another study, Chevalier and Ellison (1999a) examine if managers' behaviour is affected by the fear of getting terminated and suggest that younger managers have more sensitive termination – performance relationship than older managers; and thus, they tend to avoid unsystematic risk. Gottesman and Morey (2006) find that managers holding MBA degree from the top 30 schools, based on the Business Week rankings of MBA programs, exhibit superior performance than those without MBA degrees or those with MBAs from unranked programs. Thus, they conclude that likelihood of high ranked schools to produce better managers is higher. Further, Switzer

and Huang (2007) indicate that differences in the performance of the funds can be attributed to differences in other managerial human capital characteristics.

Recent studies also provide evidence for the positive relation between managerial attributes and fund performance. Mentel, Szetela and Tvaronaviciene (2016) find that the professional management education provides an advantage to the investment managers. Cuthbertson, Nitzsche and O'Sullivan (2016) report that some manager characteristics and fund characteristics explain the cross-section of fund performance; moreover, it is the quality of the undergraduate institution of the managers which has a positive effect on fund performance. Similarly, Khalil, Hassan and Qamar (2016) find that factors like manager's age, qualification, experience, fund age, and management fee affect the performance of mutual funds positively. Fang and Wang (2015) provide evidence for the positive relation between manager's qualification and fund performance in China. They report that there are distinct channels affecting the performance of the fund managers, such that managers with MBA or CFA qualifications are associated with higher excess returns, better stock-picking ability and thus, better comprehensive performance. From the above strand of literature, we conclude that the human capital theory applies to the mutual fund industry in many countries.

In contrast to these studies, there are some studies suggesting that there is either no relation or negative relation between the fund performance and manager characteristics like education and experience. Dincer, Gregory-Allen and Shawky (2010) and Fortin, Michelson and Jordan-Wagner (1999) report that there is no relationship between manager tenure and performance. Hu, Yu and Wang (2012) study 60 mutual funds in Taiwan and report that balance funds perform better than other funds; and managers' tenure is inversely related to the fund performance such that old managers may not necessarily outperform new managers.<sup>3</sup>

Apart from linear association between the fund performance and managerial attributes, some studies contend that the relation between educational qualification and fund performance is non-linear. Hu, Kale, Pagani and Subramanian (2011) report a U-shaped relation between the relative risk and prior performance of a manager. They establish that age is an important factor in de-

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<sup>3</sup> This can be attributed to the fact that less experienced managers are more concerned about their careers and are afraid of losing their jobs, and therefore, work harder than others.

terminating the relative risk-prior performance relation, and that younger managers facing greater employment risk, choose lower relative risk whereas experienced managers tend to choose high relative risk. Atkinson, Baird and Frye (2003) find no evidence supporting any significant difference in the performance, risk, and other fund characteristics managed by male and female fund managers. Despite this, they observe that during the initial years of managing the funds, net asset flows into funds managed by females are lower than those handled by males. Further, in many studies, it is observed women fund managers held portfolios with more risk than men (Bliss & Potter, 2002).

Thus, literature provides mixed results for role of the personal characteristics of the fund managers in deciding the performance of different mutual fund schemes, apart from the geographic and demographic characteristics. In this paper, we confine our study to examine if there is any relationship between the educational qualification and work experience of managers, and fund performance in Indian mutual fund during 2005–2018.

## DATA AND METHODOLOGY

### Data

The data is collected from the NAV India database of CAPITALLINE for 1605 fund managers for the period 2005–2018. After filtering for managers whose either age or qualification was not available, we have final data of 1508 fund managers, handling 29 different schemes for the given time period. Table 1 presents details of different schemes, along with their frequency distribution. It is evident from table 1 that almost 94 percent of the observations are of open-ended schemes: both income and growth.

**Table 1.** Different schemes with codes

Scheme Code	Description	Frequency	Percent
<i>Panel A</i>		<i>Open ended Income/debt oriented scheme</i>	
A00101	Overnight Fund	7	0.44
A00102	Liquid Fund	77	4.87
A00103	Ultra Short Duration Fund	42	2.66

**Table 1.** Different...

Scheme Code	Description	Frequency	Percent
A00I04	Low Duration Fund	53	3.35
A00I05	Money Market Fund	35	2.22
A00I06	Short Duration Fund	62	3.92
A00I07	Medium Duration Fund	26	1.65
A00I08	Medium to Long Duration Fund	18	1.14
A00I09	Long Duration Fund	2	0.13
A00I10	Dynamic Bond Fund	113	7.15
A00I11	Corporate Bond Fund	2	0.13
A00I12	Credit Risk Fund	38	2.41
A00I13	Banking and PSU Fund	64	4.05
A00I14	Gilt Fund	67	4.24
A00I15	Gilt Fund with 10-year constant duration	4	0.25
A00I16	Floater Fund	20	1.27
<i>Panel B</i>		<i>Open ended growth/equity-oriented scheme</i>	
A0II01	Multi Cap Fund	90	5.7
A0II02	Large Cap Fund	73	4.62
A0II03	Large & Mid Cap Fund	174	11.01
A0II04	Mid Cap Fund	86	5.44
A0II05	Small Cap Fund	77	4.87
A0II06	Dividend Yield Fund	6	0.38
A0II07	Value Fund/Contra Fund	115	7.28
A0II08	Focused Fund	5	0.32
A0II09	Sectoral/Thematic Funds	143	9.05
A0II10	ELSS	88	5.57
<i>Panel C</i>		<i>Close ended scheme</i>	
<i>Close ended income/debt-oriented scheme</i>			
B00I01	Fixed Term Plan	63	3.99
<i>Close ended growth/equity-oriented scheme</i>			



**Table 1.** Different...

Scheme Code	Description	Frequency	Percent
B01101	ELSS	26	1.65
<i>Interval schemes</i>			
C00101	Income/Debt Oriented Schemes	4	0.25

Source: author's calculation from <https://www.navindia.com/>.

### Variables

We analyse the impact of qualification and experience on fund performance through OLS regression. Given below are the explanation of the dependent variable, fund performance, and the independent variable of interest: *work experience and educational qualification, along with the definition of the control variable, age of the scheme.*

### Fund Performance

Fund performance is measured by the annualised returns, calculated from the monthly returns. Thus, the annualised monthly return for the *i*-th Fund Manager and *j*-th fund is given by

$$R_{ij} = \left[ \prod_{i=1}^k (1 + R_{t-j}) \right]^{1/k} - 1 \tag{1.1}$$

It can be easily noted that  $R_{ij}$  is equivalent to the monthly compounded growth rate per annum (CAGR) which is the geometric mean of monthly gross returns and supposed to be better measure of average return than simple arithmetic mean.<sup>4</sup>

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<sup>4</sup> Since CAGR takes into account the reinvested profits, it is considered to be a better measure of an investment's annual growth rate (Hull, 2015).

### Educational Qualification

For educational qualification of the fund managers, from the raw descriptive text data, we have created a variable 'Q-code'. The data is broadly divided into ten categories, which is categorical in nature.<sup>5</sup> For example, Q-code 2 implies that the manager is a Bachelor of Engineering (B.E) along with Master of Business Administration (MBA). Similarly, the Q-code 3 represents fund manager is a Bachelor of Technology (B.Tech), and Master of Business Administration. Table 2 provides detail of different qualification categories, along with the frequency distribution of these categories.

**Table 2.** Qualification Categories

Q-code	Description	Frequency	Percent
1	Others	112	7.09
2	BE & MBA	251	15.89
3	B.Tech & MBA	244	15.44
4	B.SC & MBA	68	4.3
5	CA/CFA	70	4.43
6	MBA/PGDM	255	16.14
7	BCOM & OTHERS	80	5.06
8	ONLY BCOM	31	1.96
9	BCOM & CA	191	12.09
10	BCOM & MBA	278	17.59

Source : author's calculation from <https://www.navindia.com/>.

Apart from the educational qualifications on the basis of under-graduation, post-graduation, and specialised courses, earlier researches (in the context of USA) have considered SAT score, and GMAT score to signify the academic credibility/scholastic achievement level of the managers, and average SAT or GMAT score of the students of any institute to label it as top ranked or not. However,

<sup>5</sup> The classification is indeed arbitrary. However, we have made sure that all the major bachelors and master degrees that are prevalent in India have been covered.

the entire procedure is not applicable in the Indian scenario since admission to many prestigious colleges is based on either their own aptitude tests or a common entrance test whose scores are not in the public domain. It is also obvious that managers qualified from an institution of repute like IITs or IIMs must have obtained high scores in these entrance exams, otherwise it would not have been possible for them to get admission into these premier institutions. Thus, we assume that managers passed out from IITs or IIMs have received quality education and thus, can be expected to impact the fund performance positively.

### **Experience of the Managers**

We take three proxies to represent the experience of the managers: total experience in terms of number of years (`experience_yrs`), the number of organisations managers have worked previously (`No_pre_org`), and the experience of fund managers in terms of numbers of years of handling the current scheme (`age_scheme_manager`). Considering various studies which explain that mutual fund characteristics also affect the fund performance (Babbar & Sehgal, 2018; Prather, Bertin & Henker, 2004), we control for the age of the scheme also which is measured as the difference between the date on the which the data is collected (August 2018) and the inception year of the scheme itself.

There are many other managerial attributes like actual age of the manager, gender, etc., used in earlier research which in our case could not be tested as the relevant data is not available. Hence, we mainly confine our work to only qualifications and the experiences of the fund managers.

### **RESULTS AND FINDINGS**

Table 3 presents the descriptive statistics of the variables: performance of the mutual fund scheme, the three proxies of the experience of the manager: `experience_yrs`, `no_prev_org`, and `age_scheme_managers`, and age of the scheme. The mean and median of all the variables are similar indicating the non-severity of skewness in the distributions. For performance, we see that minimum value is as low as -64% and highest being 99% indicating a wide spread in the data, with many good, mediocre, and poor performing funds included in the study. Similarly, the experience of the managers in term of his total experience also varies from two to 35 years, implying that both the young and ex-

perienced managers are included in the study. The same is evident from other proxies of the manager's work experience. In addition, we have included both the freshly floated mutual fund schemes and the traditional schemes, as evident from the minimum and maximum value of the age of the scheme, 0.104 years and 31.726 years respectively. Finally, the Jerque-Bera test statistics clearly indicate non-normality of all the variables; however, the given the fact that the sample of this study is very large, it is reasonable to assume the normality of the variables and therefore, data is good enough for the ordinary least square analysis.

**Table 3.** Descriptive Statistics

Variable	N	Mean	Med	SD	Skew	Kurt	Min	Max	JB
Performance	1580	7.83	7.76	8.72	0.61	13.04	-64.15	99.33	2941***
Experience_Yrs	1580	12.47	12.00	5.73	0.79	1.02	2.00	35.00	240.4***
No_Prev_Org	1580	2.41	2.00	1.52	0.53	-0.65	0.00	6.00	99.5***
Age_scheme_managers	1580	3.76	2.44	3.63	1.59	2.87	0.02	24.35	1293***
Age_scheme	1580	10.26	10.53	6.54	0.31	-0.75	0.10	31.73	73.8***

This table presents descriptive statistics of variables used in the study. \*, \*\* and \*\*\* indicate significance level at 10%, 5% and 1% respectively. The null hypothesis for the Jarque-Bera test is that the data is normally distributed; the alternate hypothesis is that the data does not come from a normal distribution.

S o u r c e : author's calculation from sample data. <https://www.navindia.com/>.

Table 4 presents the correlation among different variables. There is a positive and significant correlation between performance and all the three proxies of the managers' experience, as well as the age of the scheme. Total experience of the managers is also positively and significantly correlated to number of organisations the managers have worked with and the years for which the managers are handling a particular scheme.

**Table 4.** Correlation Matrix

	Performance	1.	2.	3.
1. Exp_Yrs	0.0946***			
2. No_Prev_Org	0.0625**	0.2650***		
3. Age_scheme_managers	0.3565***	0.1712***	0.0300	
4. Age_scheme	0.2187***	0.1050***	0.0563**	0.4068***

This table presents Pearson correlation matrix of all the variables used in the study. \*, \*\* and \*\*\* indicate significance level at 10%, 5% and 1% respectively.

S o u r c e : author's calculation from sample data. <https://www.navindia.com/>.

Table 5 presents the regression results. We run three regressions,<sup>6</sup> based on the three broad categories of the schemes: open ended income/debt, open ended growth/equity, and close ended income/debt. The results suggest that the total experience of the manager being positively related to performance only in case of open-ended income. However, the number of previous organisations where the manager has worked is negatively related to the performance of the open-ended income funds but positively related to the performance in open-ended growth funds. Further, it is evident that the greater is the time period a manager handles a scheme, the better is the performance. Age of the scheme is positively related to the performance of only open-ended growth schemes. Our results are consistent with those of the Golec (1996) who finds that having an MBA is not enough; years of experience among other factors affect the fund performance. However, the results contradict Hu et al. (2012) who report managers' tenure is negatively related to the fund performance, such that old managers may not necessarily outperform new managers.

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<sup>6</sup> We also run a regression for the close ended growth/equity funds. However, only the total experience of managers, in terms of number of years, is found to be significant and positively related to the fund performance. This result may be spurious due to very small number of observations of close ended growth/equity schemes (only 26).

**Table 5.**  $CAGR_i = \alpha + \beta_1(\text{Experience\_Yrs}_i) + \beta_2(\text{No\_Prev\_Org}_i) + \beta_3(\text{Age\_scheme\_managers}_i) + \beta_4(\text{Age\_scheme}_i) + \varepsilon_i$

	Open ended income/debt	Open ended growth/equity	Close ended income/debt
$\alpha$	5.3376***	2.1030***	2.5688***
$\beta_1$	0.0476*	-0.040	0.077
$\beta_2$	-0.173**	0.5824**	-0.292
$\beta_3$	0.3449***	1.0656***	1.8092***
$\beta_4$	-0.017	0.1958***	0.124
R <sup>2</sup>	0.135	0.184	0.589
Adjusted R <sup>2</sup>	0.129	0.180	0.561
N	630	857	63

\*, \*\* and \*\*\* indicate significance level at 10%, 5% and 1% respectively.

Source: author's calculation from sample data. <https://www.navindia.com/>.

The three regressions run in table 5 are for the three major categories of the funds; however, under each category, there are various schemes as described in table 1. Thus, in order to capture the relationship between the fund performance and the experience of the fund managers for each scheme, we divide the full sample into subsamples of different types of schemes (results not presented). Results suggest that Age\_scheme\_manager is positively related to the fund performance in most schemes. The experience, when captured through manager's time of handling a particular scheme is the most important for the performance of the fund in India. These results are in alignment with the theories of adaptive learning which suggest that people learn to solve decision problems primarily through learning-by-doing and thus, the positive relation between fund performance and Age\_scheme\_manager value can be considered a reflection of their wider learning curve (Greenwood & Nagel, 2009).

Another attribute of the fund managers considered is the educational qualification which can impact the performance of the fund they handle (Gottesman & Morey, 2006; Sen & Tan, 2016) with an underlying assumption that the better the educational qualification, the better the skill of the fund managers. We check for the validation of the human capital theory for the Indian mutual fund industry through the regressions where ten subsamples are created

based on the qualification categories mentioned in table 2. For all the Q-code subsamples, *Age\_scheme\_managers* is positively related to the fund performance.<sup>7</sup> Further, table 6 provides a better picture where the quality of qualification is also considered by introducing a dummy variable *D\_IIT/IIM* in the regression (3). *D\_Tech* is the dummy variable which assumes value of 1 if the manager holds a bachelors in technology or engineering, 0 otherwise, whereas *D\_MBA* assumes a value of 1 if the manager is a qualified MBA, 0 otherwise. We find that neither just any bachelor degree in technology/engineering nor MBA impacts the fund performance, rather the quality of these degrees matters. In India, the most prestigious institutes for the engineering are the IITs and for MBA are the IIMs.

In model (3), we find that the *D\_IIT/IIM* is highly significant and positively related to the fund performance for the full sample. Thus, quality of the education affects the fund performance. Moreover, in these regressions, with dummies for any B.Tech/B.E, MBA, or IIT/IIMs, years for which the manager has been handling the scheme is significant and positively related to the performance of funds. These results contradict as well as extend the findings of Chevalier and Ellison (1999b) and Golec (1996) who reports that holding an MBA degree improves the fund performance. On the contrary, in Indian mutual industry, it is not MBA degree only but its quality (from IIMs) which positively impacts manager's performance. Further, the age of the scheme is also significantly and positively related to the performance of funds, contrasting the result of Khalil et al. (2016) who finds that age of the fund to be inversely related to the fund performance. This could possibly be due to survivorship bias. The results are consistent with the human capital theory, similar to the Borralho, Féria and Lopes (2014) who find that an important role is played by the institutions from where one is procuring an educational qualification.

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<sup>7</sup> Results are reported due to lack of space.

**Table 6.**  $CAGR_i = \alpha + \beta_1(\text{Experience\_Yrs}_i) + \beta_2(\text{No\_Prev\_Org}_i) + \beta_3(\text{agescheme\_managers}_i) + \beta_4(\text{age\_scheme}_i) + \beta_5(\text{D\_Tech}_i) + \beta_6(\text{D\_MBA}_i) + \beta_7(\text{D\_IIT/IIM}_i) + \varepsilon_i$

	(1)	(2)	(3)
$\alpha$	3.2920***	3.1549***	2.7934***
$\beta_1$	0.028	0.031	0.037
$\beta_2$	0.219	0.2623*	0.2429*
$\beta_3$	0.7330***	0.7613***	0.7482***
$\beta_4$	0.0996***	0.1140***	0.0891***
$\beta_5$	-0.228		
$\beta_6$		-0.534	
$\beta_7$			1.4365***
R <sup>2</sup>	0.124	0.137	0.132
Adjusted R <sup>2</sup>	0.121	0.134	0.129
N	1288	1573	1528

\*, \*\* and \*\*\* indicate significance level at 10%, 5% and 1% respectively.

Source: author's calculation from sample data. <https://www.navindia.com/>.

Table 7 presents the results of regression where nine dummies are introduced for the ten Q\_codes, representing qualification of the manager, and intercept representing the Q\_code10, along with the three proxies of their work experience. Number of years for which the manager has been handling the scheme, and age of the scheme, affect the performance positively; however, none of the qualification is significant, except D5, representing manager holding specialization degree of either CA or CFA (Chartered Accountant/Chartered Financial Analyst). Thus, a special qualification of CA or CFA can also improve the fund performance of various schemes in India. This result can be attributed to the fact that specialised courses can enhance the knowledge of the managers such that they attain better skills and perform better than others.



**Table 7.**  $CAGR_i = \alpha + \beta_1(\text{Experience\_Yrs}_i) + \beta_2(\text{No\_Prev\_Org}_i) + \beta_3(\text{agescheme\_managers}_i) + \beta_4(\text{age\_scheme}_i) + \sum_{n=5,j=1}^{13,9} \beta_n(Q\_D_{i,j}) + \varepsilon_i$

(1)	
$\alpha$	2.7723***
$\beta_1$	0.030
$\beta_2$	0.27463*
$\beta_3$	0.76449***
$\beta_4$	0.11101***
$\beta_5$	-0.337
$\beta_6$	0.434
$\beta_7$	-0.814
$\beta_8$	-0.040
$\beta_9$	1.93924*
$\beta_{10}$	-0.396
$\beta_{11}$	0.158
$\beta_{12}$	1.076
$\beta_{13}$	0.192
R <sup>2</sup>	0.141
Adjusted R <sup>2</sup>	0.133
N	1580

\*, \*\* and \*\*\* indicate significance level at 10%, 5% and 1% respectively.

Source: author's calculation from sample data. <https://www.navindia.com/>.

Overall, our results suggest that considering these fund managers like any other skilled professionals, their experience and qualification as well as quality of qualification impact their performance as reflected in the performance of the funds they manage.

## ■■■ CONCLUSION AND IMPLICATIONS

This paper examines the relationship between the fund manager's characteristics, like qualification and experience, on the fund performance. The preliminary analysis from the correlation matrix suggests that there is a positive relation between performance and all the three proxies of the managers' experience, as well as the age of the scheme. However, to provide more justification to this analysis, we use a large database for 1508 fund managers handling 29 schemes during 2005–2018, and divide the qualification into ten categories, and 29 schemes, we find that manager's experience in terms of years of handling a particular scheme and age of the scheme impacts the fund performance positively.

Further, regression results on segregating the data in three broad categories of the open-ended income/debt schemes, open ended growth/equity schemes, and close ended income/debt schemes, suggest that the total experience of the manager being positively related to performance only in case of open-ended income in contrast to the number of previous organisations where the manager has worked which is found to be negatively related to the performance of the open-ended income funds. Also, age of the scheme is positively related to the performance of only open-ended growth schemes. In addition, regression results on dividing the full sample into subsamples of different types of schemes also suggest that age of the mutual fund scheme is positively related to the fund performance in most of the schemes and managers' experience, when captured through his/her time of handling a particular scheme is the most important for the performance of the fund in India the quality of manager's education matters for fund performance, we find that the managers from either IIT or IIM perform better than the managers who are MBA or BE/B.Tech from any other institutions. Also specialised degrees like CA/CFA are found to have positive impact on the fund performance. Overall, we conclude that it is the number of years the manager is handling a particular scheme, degree from prestigious institutions, specialised course like CA/CFA, and the age of the scheme which improves the fund performance in the Indian mutual fund industry. Our results provide support for the theories of adaptive learning, and human capital theory for the Indian mutual fund industry.

Apart from being the first in the Indian context, our study has practical implications for the investors as well the asset management companies. Based on the objective of their investment in the funds, investors can look for certain characteristics of the managers while investing. Our results support the positive relation between the number of years the manager is handling the scheme and fund performance for both open ended and closed ended scheme; thus, while investors can check for experience and qualification of the managers handling a particular scheme, and can expect to get better returns on the funds. Apart from this, such studies can guide the growing number of the asset management companies to consider manager-specific characteristics while assigning them different schemes. However, since this study focuses on only two major attributes of the fund managers, it offers scope for further research considering other characteristics of the managers like race, religion, absolute age of the managers, family background, etc for which data has to be hand collected. A comparative analysis of the relation between the fund performances and managerial attributes for emerging and developed economies can also be explored.

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