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# Public and private sector response to mutual funds in Pakistan using binary logistic regression

Respuesta del sector público y privado a los fondos mutuos en Pakistán utilizando la regresión logística binaria

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#### **ABSTRACT**

To study the influence of risk perception, socio-economic environments, return perception, venality level, a revolution in investment scheme and awareness about investor behavior-based mutual funds. The result of this primary survey from Lahore, Karachi, Islamabad based on 460 questionnaire responses with snowball sampling. From all over the Pakistan individual investors were included in our population. Results from the study reveal that investors could behave confidently with innovative investment schemes, awareness, criteria of preference for an investor. These solid reasons could enhance the investor base mutual funds. While some factors having adverse effects on the behavior of investors such as venality level, perception of returns and precarious institutional factors. Whereas gender, level of education, saving level are social demographics which could affect the behavior of investors positively towards the mutual fund investment although age having a negative effect. This study inferring the management of mutual funds, regulators and investors. While these results highlight the inadequacy of awareness in a certain section of society. Therefore, for awareness of old age people, females considered more explicitly to collect an extensive period of investment of mutual funds. And to put a stronghold on the roots of venality level regulators to control the adverse effects of management.

Keywords: Investors behavior, Venality level, awareness, risk perception, innovation, Mutual funds, return perception

#### **RESUMEN**

Estudiar la influencia de la percepción del riesgo, los entornos socioeconómicos, la percepción del rendimiento, el nivel de venalidad, una revolución en el esquema de inversión y la conciencia sobre los fondos mutuos basados en el comportamiento de los inversores. El resultado de esta encuesta primaria de Lahore, Karachi, Islamabad basada en 460 respuestas al cuestionario con muestreo de bola de nieve. De todo el Pakistán, se incluyeron inversores individuales en nuestra población. Los resultados del estudio revelan que los inversores podrían comportarse con confianza con esquemas de inversión innovadores, conciencia, criterios de preferencia para un inversor. Estas razones sólidas podrían mejorar la base de inversores de fondos mutuos. Si bien algunos factores tienen efectos adversos en el comportamiento de los inversores, como el nivel de venalidad, la percepción de los rendimientos y los factores institucionales precarios. Mientras que el género, el nivel de educación y el nivel de ahorro son datos demográficos sociales que podrían afectar positivamente el comportamiento de los inversores hacia la inversión de fondos mutuos, aunque la edad tenga un efecto negativo. Este estudio infiere la gestión de fondos mutuos, reguladores e inversores. Si bien estos resultados destacan la insuficiencia de la conciencia en un determinado sector de la sociedad. Por lo tanto, para concienciar a las personas de edad avanzada, las mujeres consideran más explícitamente recaudar un extenso período de inversión de fondos mutuos. Y para poner una fortaleza en las raíces de los reguladores de nivel de venalidad para controlar los efectos adversos de la gestión.

**Palabras clave:** comportamiento de los inversores, nivel de venalidad, conciencia, percepción de riesgo, innovación, fondos mutuos, percepción de retorno

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#### 1. Introduction

The role of economic development in the economic growth of any country cannot deny. Financial sector delivers, a base for the mobilization of resources and efficient allocation with the efficacy of financial intermediaries through diverse instruments. A mutual funds a prevalent intermediary who assists the financial sector with differentiated portfolio, lesser cost and delivers the profits of merging resources. It enhances the savings by constructing credence and inaugurating shared financial objectives. The paramount conveyed traits are diversification, skillfully accomplished funds trajectory small cost and all of them follow definite speculation scheme and thus, attains deliberate goals (Warther, 1995).

In Pakistan, National Investment Trust (NIT) initiated open-ended mutual funds in 1962(Syed Muhammad Amir Shah & Hijazi, 2005). Investment Corporation of Pakistan (ICP) established about 1966, and then ICP announced open-ended funds. Twenty Six ICP's close-ended funds found till 1990. After the verdict of denationalization in 2002, twenty-five out of twenty-six close-ended funds divided into two heaps. One lot of funds recognised as "PICIC investment fund." Primarily, together with public& private segments were liable to cope with current funds but by the consequence of nationalization, government gains an overriding role. In 2004, an amount of forty-eight billion rupees detected as the worth of close-ended funds, and open-ended mutual funds were observed at Rs. 63.68 billion. While these figures were Rs. 4 billion and Rs. 25 billion in 1997, for close-ended and open-ended mutual funds respectively. In other words, an increase of 75% observed in this specific sector. Till 2005, there were 33 mutual funds (Afza & Rauf, 2009; MUFAP, 2012). According to the yearbook of MUFAP(2015), there are only 236418 investors of open and closed-ended mutual funds in 2015. It implies that Pakistan is still far behind with reverence to investment in mutual funds as it remains 0.1% of the whole population approximately.

Other countries have a preference for mutual funds rather debt and equity. Whereas precisely in Pakistan, shared funds yet to be groomed and thus, they are an emerging phase. Additional, non-secular minded ones never deposit their money in financial institutions. They choose enormous utilization which plants many subdivisions idle. Mutual funds mainly influenced by individual's savings choices. According to speculation fund of a Sweden association among eighteen to seventy-four years' reserves in the form of savings augmented from 62% to 76% subsequently in between 1998 to2012. Which further not having the M-funds owing to consumer savings, funding managers, inducements and upcoming affluence effect by M-funds. Financiers in M-funds stick to more prominence that's why their influence is devouring broader impact at microeconomic & macroeconomic stages(Ferson & Kim, 2012).

It is essential to evaluate M-funds equally for financiers and portfolio executives for choice making. Further, mutual funds can make its place towards Socially Responsible Investment (SRI) as SRI is experiencing huge growth in the current era(Guay, Doh, & Sinclair, 2004). A theory of planned behavior (TPB) suggests that investment decisions determined by investors' behaviors. Now it is to check what factors sum up investment behavior. TPB is an extension of reasoned action theory (TRA) which stated that behavior follows intentions(Ajzen, 1991);(Sheppard, Hartwick, & Warshaw, 1988). Mutual funds are also earning high returns. In 2015, AKD opportunity fund had the return of 19.72%, and concerning Islamic funds, ALFALAH GHP Islamic stock fund earned 23.24% return and was considered best for the year 2015(Alam, 2016; MUFAP, 2015).

The main objective of the current research is to identify those factors which might influence the investment behavior of financiers of M-funds happening in Pakistan and to identify factors which are required to be concentrated to augment the current strength of M-funds investment in Pakistan. The remaining part of the research paper structured as Subdivision 2 contains empirical evidence for understanding the investor behavior towards mutual funds. Subdivision 3 provides research methodology. Community 4 deliberates data analysis and empirical outcomes. Subdivision 5 consists of the deduction of the study and subdivision 6 comprise implications of policy and direction for future research.

#### 2. Literature

Decisions of investors have become complex due to the presence of a wide range of products in the financial market(Suppa-Aim, 2010). As mutual funds are concerned, the study of literature on investment behavior identifies a variety of factors. These factors can categorise as social & demographics, awareness, risk & return perceptions. A brief review of empirical studies mentioned here.

Researchers have held responsible for certain demographic factors which affect the investment in mutual funds. These factors include gender (Liersch, 2013)(Sellappan, Jamuna, & Kavitha, 2013)(Bulsara, Desai, & Miniaoui, 2015; Velmurugan, Selvam, & Nazar, 2015), education, age (Ansari & Moid, 2013; Bulsara et al., 2015), income (Shinozawa & Vivian, 2015)(Rajeev, 2015) and occupation(Geeta & Ramesh, 2012). Besides demographics, social characteristics also tend to have an impact on investment decisions. Barber & Odean(2013) claimed that a person's perception of securities is affected by his social communications

Mutual funds preferred by investors due to their positive output regarding transparency, affordability, and flexibility as mentioned by Hou (2012) and Singh(2012). Investors consider the investment in mutual funds because of trade-offs between returns and risk (Kandavel, 2011; Pandey, 2011). Literature has determined the number of factors which motivates towards the investment in mutual funds. These factors include high returns & low risks (Kawle 2016)(Brad M. Barber, Huang, & Odean, 2016; Doskeland & Pedersen, 2016), tax benefits and long savings(Joshi, 2013); ease of administration, professional management, liquidity, diversification, affordability, flexibility, transparency and access to global markets(Vanaja & Karrupasamy, 2014). The fact cannot deny that certain pitfalls also associated with mutual funds like the inability of funds' manager, fluctuations in returns, high costs, and tax liabilities(Qasim, Hussain, Mehboob, & Arshad, 2019). However, these issues can be addressed by simple implementation of value appreciation policy by funds' manager(Vanaja & Karrupasamy, 2014). Irrational thinking, Over-reaction, over or under assurance, cognitive bias, risk factors, dividends, other's opinions, and earlier enactment of the corporation, accounting information, structure of ownership, bonus payments, and predictable corporate earnings also determined as factors of investor investment mutual funds behaviour by Shafi(2014). Jagongo and Mutswenje(2014) deliberated M-funds common perspective and figured out that furthermost significant factors are financial circumstances & investment yields, firm enactment & position, accounting statistics & right of the firm, mitigation& divergence, environmental elements, third-party alternative, risk minimisation, discernment towards firm, and firms sensitivity. Sierra(2012) also considered the impact of macroeconomic variables on investment behavior. Corporate governance of firms affects the investment of mutual funds, and the effect of this factor can control by regulatory authorities(Adams, Mansi, & Nishikawa, 2012).

Investment in mutual funds is affected by certain behavioral biases also. Investors can mitigate these biases by knowing the exact cause of such issues and then developing a balanced portfolio. Baker & Ricciardi(2014) observed that experienced investors learn about developing successful strategies. Knowing the behavior of investors makes it possible to understand the reaction of those behaviors. Mohamed, Anuar, & Jaffar(2014) explained it from the aspect of Real Estate Investment Trust (REIT)(Freybote, 2019). Therefore, it is quite essential to know about those aspects which affect investors' decisions concerning mutual finds investment.

Besides all these factors which are addressed extensively in the literature, there are other factors responsible for determining the investor's behavior. Like, lack of awareness about specific investment opportunities remains the main reason for low circulation of funds. Deficiency of knowledge leads towards the adverse selection of portfolios and becomes a reason of small mutual funds investment(Csorba, 2019; Yao & Wang, 2013). Awareness programs are quite necessary to reduce the effect of heuristics or gambler fallacy from the decision making especially of institutional investors (Qureshi, Rehman, & Hunjra, 2012) and for re-programming investment strategies(Khaparde & Bhute, 2015). Das(2011) analyzed that small investors can attain massive benefits from M-funds.

Additionally, Lamphun(2012) stated that minor funds have a high risk by exceptional tax advantage and more senior dues and bond through high return consuming little fee and expenditures. Hili, Pace, and Grima(2016) understood equity portfolios with great sizes perform an example for the minor and middle ones. Casavecchia(2016) examined damaging approaches that initiated by herding. These headings are significant by executive inducement schemes which displayed the substitution of improved governance also signifies the operational, regulatory scheme in the direction of deprived flow enactment sensitivity occupied by M-funds executives. Furthermore, they originate that absence of herding executives ensures improved expertise and overtake the rest of things, precisely drifting in herding reserves prepare improved persistence in symmetry(Abbas, Ansari, Ahmed, & Asif, 2019).

As for the literature of M-funds in Pakistan is concerned, there are a few studies available, and those have worked on the enactment of M-funds in Pakistan(Abbas et al., 2019). Shah et al.(2005) evaluated the performance of mutual funds and concluded that mutual funds face the diversification problem in Pakistan and we are lagging behind other countries in this specific sector. Sipra (2006) analyzed the performance of mutual funds for ten years. This study concluded that mutual funds are not performing best according to the market portfolio. Nazir & Nawaz (2010a) determined the elements accountable for the development of M-funds. Further, they described that proportion of family, asset turnover, and expenditure ratio fund the growth of Mutual funds. While administration fees and risk-adjusted revenues contribute adversely towards their development. Afza and Rauf(2009) summed up that M-funds' enactment influenced by legged yield and liquidity the study conducted from 1999 to 2006. Said research of Afza and Rauf (2009) also comprises the direction of the OE M-fund's executives and financers. Nazir & Nawaz(2010b) also described that M-funds regulate the available idle reserves and enhancing the financier base. Asghar et al.(2013) examined the competence of M-funds in Pakistan. Their work completed from 2005 to 2010. They further found that M-funds were 92% technically efficient, 97% as allocative effective, and cost-effectiveness was 89%. Their study also measured the influence of the stock market crisis of 2009.

Risk& return, social demographics, and investment criteria are some of the factors addressed in existing studies, but awareness perspective, innovative schemes, venality level are utterly new elements observed in this research. Consequently, the current research is analyzing the relationship amid return perception, perception of risk, social demographics, level of venality, preference criteria for investor, innovative investment schemes, and responsiveness & investor behavior towards M-funds investment in Pakistan.

From the above discussion, the following hypothesis is constructed.

 $\mathbf{H}_{a}$ . There is a relationship between income, ages, professional education, savings, educational level, gender, marital status, return-perception risk perception, venality, investment preference criteria, awareness, innovation, and behavior of investors towards the M-fund.

#### 3. Research Methodology

## Questionnaire Design

The primary data collected through questionnaire. It contained questions for Risk & Return Perception, criteria of Investment, Awareness, Venality level, Invention in Investment Schemes. Information about social demographics obtained through direct questions about age, education, gender, level of savings, marital status, professional education, and income. A brief description of variables presented in **Table 1.** 

Variable	Description	Expected Sign	Reference
Risk Perception	It measured the comparison of risk perception of investors about mutual funds along with other investment avenues.	+/-	(I. Kaur & Kauhisk, 2016)
Return Perception	It also measured through the comparison of mutual funds investment perception along with other investment avenues concerning return perception.	+	(I. Kaur & Kauhisk, 2016)
Investment Criteria	It measured by the comparison of investment criteria factors along with the investors concerning mutual funds investment.	+/-	(I. Kaur & Kauhisk, 2016)
Awareness	It measured 13 statements of knowledge on a Likert scale.	+	
Level of Venality	It measured with the help of dimensions of dishonesty.	_	
Innovation in Investment Schemes	It measured through the 13 dimensions of change.	+	

#### Sampling Design

Two different criteria considered for the sampling design. Firstly, the study wants to predict the actual behavior of investors towards mutual funds' investments, so both investors and non-investors were taken equally as the populations of the study. Second, people from the private and public sector and self-owned professions are to be included similarly to configure accurate and overall picture. Although, in line with year book MUFAP() of Pakistan, 236,418 financiers are currently investing in M-funds. However, here the non-investors are not known accurately, so the population of the study is unknown. Therefore, sampling technique adopted for the study is snowball sampling. Sampling Frame includes the individuals' investors of Lahore, Islamabad, and Karachi. According to Cochran's formula, Barlett, Kotrlik, & Higgins() and Smith and Albaum() at 95% level of confidence, a sample size of this study is 384.16. For safe side, 450 responses were intended. A questionnaire distributed through different channels including emails, social networking sites,i.e., www.linkedin.com and by personal meetings. Out of 500 distributed questionnaires, 460 responses were considered complete and up to the criteria.

The model constructed for regression analysis is mentioned below.

#### where,

IB = "Investor Behavior towards M-funds"

SD = "Social and demographic factors"

RP = "Return perception variable"

IPC = "Investment preference criteria"

LOV = "Level of venality"

IN= "Innovation in investment schemes"

AW= "Awareness about mutual funds"

Binary logistic regression is used to run the regression analysis because the dependent variable is categorical variable and collected as (1) investor of M-funds and (0) Non-Investors of M-Funds.

## 4. Discussion of results

Table 1A: Demographic and Socio-Economic Characteristics of Respondents

Panel A: Categorical Variables

Variables		All Resp	All Respondents		·s		
				Non-Fu	nd	Mutua	l Funds
		N	%	N	%	N	%
Gender	Male	383	83.26	168	73.04	215	93.47
	Female	77	16.74	62	26.96	15	6.52
Marital Status	Single	133	28 91	76	33 04	57	24.78
$IB = \infty +$	$\beta_0 SD + \beta_1 RP + \beta_2 IPC + \beta_2 IPC$	$\beta_3 LOV + \beta_4 I$	$N + \beta_5 AW$	' + ε		173	75.22
Education	Matric	29	6.30	19	8.26	10	4.35
	Graduation	199	43.26	128	55.65	71	30.87
	Post-Graduation	194	42.17	82	35.65	112	48.69
	Above Post Graduation	38	8.27	1	.44	37	16.09
Professional	No	239	51.96	163	70.87	76	33.04
Education	Yes	221	48.04	67	29.13	154	66.96
Savings	Less than 10%	121	26.30	69	30	52	22.61
	11-20%	181	39.35	95	41.30	86	37.39
	21-30%	91	19.78	31	13.48	60	26.09
	Above 30%	61	13.26	30	13.04	31	13.48
	Don't Save	6	1.31	5	2.18	1	.43

Above table shows that male investors are more than females and the same proposition exists in mutual funds' investments too. Overall, married invest more than single ones and postgraduate invest more in mutual funds and graduate comes after them. Individuals have professional education invest more in M-funds rather the person not having a professional qualification. Mostly investors who save 11% to 20% invest more in M-funds.

Panel B: Quantitative Variables

Variables	Mean	Min	Max	Std. Dev.
Age (in Years)	34.7935	18	60	8.85091
Income (Monthly)	60910.8696	15000.00	1150000.00	57129.05060

Ages of investors are between 18 to 60 years who respond. Their average income is around Rs. 60000 and ranges from 15000 to 1150000.

Table 2: Statistical Tests for Applicability of Factor Analysis

_				Bartlett's Test of Sphericity		
	N	Cronbach's Alpha	Kaiser-Meyer-Olkin	Арр. Ч2	DF	P-Value
Risk-Perception	9	0.585	0.782	3556***	36	.000
Return-Perception	9	0.765	0.771	5746***	36	.000
Investment Preference Criteria	6	0.816	0.873	3309***	15	.000
Innovation in Investment Schemes	6	0.947	0.897	3836***	15	.000
Level of Venality	5	0.874	0.758	2197***	10	.000
Awareness	13	0.759	0.712	5612***	78	.000

Note: \*\*\*, \*\*, \* Indicate significant at 1%, 5% and 10% level of significance. N is number of items under each criterion

KMO test shows that sample is adequate for the study, as it fulfils the rule of thumb, KMO value for all variables is more than 0.6. Risk perception, return perception, awareness, and level of venality are in the middling slot as these are more than 0.70 whereas investment preference criteria and innovation in investment schemes come in the niche of meritorious according to KMO test because these are more than 0.80.

Bartlett test shows that all variable probability is 0.000 which is less than 0.05 which means there is the presence of underlying correlation in data, so it is adequate for the factor analysis.

George & Mallery(2015) reported the rule of thumb for the internal reliability of scale that it should be higher than 0.70. It can be observed all variables full fill this rule except risk perception. Risk perception full fills the KMO and Bartlett test criteria, so it is adequate for factor analysis. So now here can be run the factor analysis for risk perception and it can be seen two factors extracted inst. High risk and inst. Low risk. The internal reliability of these factors checked which more than 0.70 is.

Table 3: Factors for risk perception

	Components				
	Inst. High Risk	Inst. Low Risk			
Bank Fixed Deposits	.276	.861			
Post office Schemes	.278	.816			
Real Estate	.007	.859			
Gold/Silver/Metals	.084	.910			
Insurance	.154	.646			
National Savings	.293	.882			
Mutual funds	.865	414			
Stock Market	.776	256			
Bonds and Debentures	.775	448			

Table 4: Variable in the equation

Variables in the equation							
	В	S.E.	Wald	Df	Sig.	Exp. (B)	
Return perception	-8.667***	1.678	26.678	1	.000	.000	
Investment criteria	1.941**	.875	4.917	1	.027	6.966	
Level of venality	-2.408***	.791	9.276	1	.002	.090	
Innovation	3.831***	.895	18.305	1	.000	46.108	
Awareness	2.920**	1.309	4.977	1	.026	18.534	
Constant	1.232	5.268	.055	1	.815	3.429	

Note: \*\*\*, \*\*, \* Indicate significant at 1%, 5% and 10% level of significance.

We run the binary logistic regression because the dependent variable is categorical. Results in above table show except for risk perception all variables significantly affect the investor behavior. Return perception and level of venality adhere to negative relationship with (-8.667) coefficient and (-2.408) coefficient respectively. Whereas investment preference criteria having a positive relationship with (1.941) coefficient, innovation in investment schemes having a positive relation with (3.831) coefficient and awareness also having a positive relationship with (2.920) coefficient. Cox & Snell R Square value is 0.728 which shows that independent variables explained dependent variable 72.8% approximately. For awareness and return perception results are consistent with (Barlett, Kotrlik, & Higgins, 2001), investment preference criteria results are consistent with (Smith & Albaum, 2013); (George & Mallery, 2003).

Table 5: Variables in the equation risk perception table

Variables in the equation risk perception table							
	В	S.E.	Wald	Df	Sig.	Exp(B)	
Risk inst. High	444	.126	12.438	1	.000	.641	
Constant	2.064	.597	11.947	1	.001	7.875	

The further study represents that high inst. Risk having the significant negative relationship at (-.444) coefficient whereas inst. Low risk of not having a significant relationship with investor behaviors.

Table 6: Variables in the Equation Demographics

Variables in the Equation	n					
	В	S.E.	Wald	Df	Sig.	Exp. (B)
Income	.001***	.000	112.018	1	.000	1.000
Age	645***	.070	84.853	1	.000	.525
Gender	1.141*	.609	3.508	1	.061	3.130
Education	1.222***	.341	12.863	1	.000	3.394
Savings	.759**	.262	8.391	1	.004	2.136
Constant	-2.704	1.851	2.135	1	.144	.067

Note: \*\*\*, \*\*, \* Indicate significant at 1%, 5% and 10% level of significance.

During Demographics regression analysis, the study indicates through binary logistic regression that age has negative regression along with investor behavior with (-.645) coefficient. Whereas, income (.001) gender (1.141) Education (1.222) savings (.759) having a positive relationship with investor behaviour. For income, educational level and age results are consistent with (I. Kaur & Kauhisk, 2016); (I. Kaur & Kauhisk, 2016), whereas for gender results are consistent with (S. Kaur, Batra, & Anjum, 2013), for level of savings results are consistent with (I. Kaur & Kauhisk, 2016); (S. Kaur et al., 2013)

#### 4.4 Hypotheses Results Summary

No	HYPOTHESES	Results
H1	Return Perception → IB	Supported
H2	Risk Perception → IB	at inst. High-risk factor
Н3	LOV → IB	Supported
H4	IN → IB	Supported
Н5	$AW \rightarrow IB$	Supported
Н6	INCOMES → IB	Supported
H7	AGE → IB	Supported
Н8	GENDER → IB	Supported
Н9	EDUCATIONAL LEVEL → IB	Supported
H10	LEVEL OF SAVINGS → IB	Supported

#### 5. Conclusion

This study aimed at finding the factors which are responsible for investors' behavior towards mutual funds in Pakistan. Findings revealed elements which virtuously connected to financiers' demographics: Matured age perhaps from thirty to forty years, High Income, marital status, and the manifestation of specialized education by the rudimentary educational level of masters.

Risk perception does not devise a full or straight effect since this goes yonder the fundamental notion of diversification which turns out to be the essence of M-Funds investment. Moreover, high institutional risk perception does not in the range of diversification, so it affects investor behaviour.

Return perception predicts strongly to investor behavior. This elaborate that more return can change investor

behaviour in the direction of the avenue. Remarkably, it can be seen M-Funds industry having high returns from past few decades.

IPC has been proved a strong factor to influence the investment in M-Funds Industry. Factors like liquidity, return, transaction cost, social security, ease of investment, and tax consideration are significant to investor behavior.

IN invites the financiers more decently and it broadly related to the future vision of the M-Funds Industry. Innovation could bring new endurance elements to M-Funds industry.

LOV (dishonesty) also has been proved one of the crucial conjecturers which are deliberate in this circumstantial for the very first time. It can conclude that increase in LOV could lead to the narrower base of investors in M-Funds and vice-versa.

Awareness always remains most essential factors which could create a difference in investors demand. One of the big reasons to not to invest in M-Funds, investor doesn't even know about M-Funds. Many of the rest don't know about the mechanism of M-Funds. So, awareness programs are very much crucial to future of this avenue. More attention should give towards providing for the availability of information and for ensuring the smooth regulation of mutual funds. Moreover, Kandavel (2016) was also of the view that the high number of AMC are beneficial for the development of M-funds.

#### 6. Implications and future direction

Current research will deliver the imperative implications for controlling and supervisory bodies of M-Funds in Pakistan. Furthermore, it will guide policymakers that which are the weaker areas to focus on to enhance the M-Funds investors. This study pointed out the importance of awareness as well as lacking venality too. In the meanwhile, three perspectives are required to be disseminated to people, including let the people know about benefits involved in M-Funds, Clarification of myths which harm mutual funds investor intention, to describe the concept of risk association in the presence of M-Funds. Asset Management Companies in Pakistan can grow by adopting tools of awareness and Innovation.

Future study would employ innovation and a level of venality as moderators of awareness. It could be more challenging to consider the awareness of innovation and venality while elucidating base scope of an investor in prescribed future in M-Funds industry.

## **BIBLIOGRAPHIC REFERENCES**

- Abbas, S. K., Ansari, U. A., Ahmed, B., & Asif, J. (2019). Identify the Effect of Awareness Upon Mutual Funds Investor Base in Pakistan Using Moderation.
- Adams, J. C., Mansi, S. A., & Nishikawa, T. (2012). Are mutual fund fees excessive? *Journal of Banking & Finance*. 36(38), 2245–2259.
- Afza , T., & Rauf, A. (2009). PERFORMANCE EVALUATION OF PAKISTANI MUTUAL FUNDS. *Pakistan Economic and Social Review.* 47(42), 199-214.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*. 50(52), 179-211.
- Alam, K. (2016). Mutual Funds Performance: AKD Mutal Funds Ranked Best in 2015. In K. Siddiqi (Ed.): The Express Tribune.
- Ansari, L., & Moid, S. (2013). Factors Affecting Investment Behaviour Among Young Professionals. *International Journal of Technical Research and Applications*. 1(2), 27-32.
- Asghar, M. J.-e.-K. A., Afza, T., & Bodla, M. A. (2013). Efficiency of the Mutual Funds in Pakistan. *Middle-East Journal of Scientific Research*, 18(18), 1055-1064.
- Baker, H. K., & Ricciardi, V. (2014). How Biases Affect Investor Behaviour. *Investment & Markets, MONEY & WEALTH, STRATEGY & MANAGEMENT.* 1, 7-10.
- Barber, B. M., Huang, X., & Odean, T. (2016). Which Factors Matter to Investors? Evidence from mutual funds flows. *Review of Financial Studies*, 29(10), 2600-2642.
- Barber, B. M., & Odean, T. (2013). "The behaviour of individual investors", Chapter 22. Amsterdam: Handbook of the Economics of Finance, Elsevier, B.V.
- Barlett, J. E., Kotrlik, J. W., & Higgins, C. C. (2001). Organizational research: Determining appropriate sample size in survey research. *Information technology, learning, and performance journal.* 19(11), 43.
- Bulsara, H. P., Desai, H. A., & Miniaoui, H. (2015). An exploratory study of consumer demeanor towards financial investment. *Investment Management and Financial Innovations*. 12(11), 124-133.

- Casavecchia, L. (2016). Fund managers' herding and mutual fund governance. *International Journal of Managerial Finance*. 12(13), 242-276.
- Csorba, L. (2019). Issues and Types of Adverse Selection and Negative Selection. *Financial and Economic Review.* 18(2), 87-116.
- Das, S. (2011). Small Investor'S Perceptions On Mutual Funds In Assam: An Empirical Analysis. *abhinav.* 1(8), 11-27.
- Doskeland, T., & Pedersen, L. J. T. (2016). Investing with Brain or Heart? A Field Experiment on Responsible Investment. *Management Science*. 62(66), 1632-1644.
- Ferson, W. E., & Kim, M. S. (2012). The factor structure of mutual fund flows. *International Journal of Portfolio Analysis and Management.* 1(1), 112-143.
- Freybote, J. (2019). 16 Real estate markets in Pakistan. Real Estate in South Asia. 16.
- Geeta, N., & Ramesh, M. (2012). A study on relevance of demographic factors in investment decisions. *Perspectives of Innovations, Economics & Business.* 1(10), 14-27.
- George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference 11.0 update. Boston: Allyn & Bacon.
- Guay, T., Doh, J. P., & Sinclair, G. (2004). Non-Governmental Organizations, Shareholder Activism, and Socially Responsible Investments: Ethical, Strategic, and Governance Implications. *Journal of Business Ethics*. 52(51), 125–139.
- Hili, J., Pace, D., & Grima, S. (2016). Equity Mutual Fund Performance Evaluation: An Emerging Market Perspective. *Contemporary Studies in Economic and Financial Analysis*. 97, 93-132.
- Hou, T. C.-T. (2012). Return persistence and investment timing decisions in Taiwanese domestic equity mutual funds. *Managerial Finance*. 38(39), 873-891.
- Jagongo, A., & Mutswenje, V. S. (2014). A Survey of the Factors Influencing Investment Decisions: The Case of Individual. *International Journal of Humanities and Social Science*. 4(4), 92-102.
- Joshi, J. R. (2013). Mutual Funds: An investment option from investors' point of view. *IBMRD's Journal of Management and Research*. 2(1), 124-134.
- Kandavel, D. (2011). Factors Influencing The Retail Investors To Prefer Investment In Mutual Funds In Puducherry: An Emprical Study. *International Journal of Engineering and Management Research*. 1(7), 1-3.
- Kaur, I., & Kauhisk, K. P. (2016). Determinants of investment behaviour of investors towards mutual funds. *Journal of Indian Business Research.* 8(1), 19-42.
- Kaur, S., Batra, S. G., & Anjum, B. (2013). Investor's perception towards selection of mutual funds rather than stock market. *International Research Journal of Business and management*. 5, 53-63.
- Kawle, P. S. (2016). A review of inclination of individuals investors behavior in stock Market of India. *International Research Journal of Engineering and Technology*, 3(5), 2291-2293.
- Khaparde, R., & Bhute, A. (2015). Investors' Perception towards Impact of Macroeconomic Performance on Stock Market Behavior. *THE INTERNATIONAL JOURNAL OF MANAGEMENT*. 2(1), 71-86.
- Lamphun, P. N. (2012). A survey of mutual fund fees and expenses in Thailand. *International Journal of Emerging Markets*. 7(4), 411-429.
- Liersch, M. (2013). Women and Investing: A Behavioral Finance Perspective. *Journal of Wealth Management Institute*. 1, 1-7.
- Mohamed, S., Anuar, M. A., & Jaffar, H. H. (2014). Investigating the Preference to Invest in Real Estate Investment Trusts. *Emerging Trends in Scientific Research*. 127, 838-844.
- MUFAP. (2012). Yearbook. Lahore: Mutual Funds Association Pakistan.
- MUFAP. (2015). MUFAP YEAR BOOK. Lahore: Mutual Funds Association of Pakistan.
- Nazir, M. S., & Nawaz, M. M. (2010a). The Determinants of Mutual Fund Growth in Pakistan. *International Research Journal of Finance and Economics*. 54(10), 75-84.
- Nazir, M. S., & Nawaz, M. M. (2010b). The Determinants of Mutual Fund Growth in Pakistan. *International Research Journal of Finance and Economics*(54), 75-84.
- Pandey, A. (2011). Investors' behaviour about mutual fund. SCMS Journal of Indian management. 8(1), 28-23.
- Qasim, M., Hussain, R., Mehboob, I., & Arshad, M. (2019). Impact of herding behavior and overconfidence bias on investors' decision-making in Pakistan. *Accounting*. 5(2), 81-90.
- Qureshi, S. A., Rehman, K. u., & Hunjra, A. I. (2012). Factors Affecting Investment Decision Making of Equity Fund Managers. *Wulfenia*. 19(10), 280-291.
- Rajeev, S. P. (2015). Investors' perception Towards Mutual Fund. RESEARCH HUB International Multidisciplinary Research Journal. 2(1), 1-4.
- Sellappan, R., Jamuna, S., & Kavitha, T. (2013). Investment Attitude of Women Towards Different Sources of Securities A Factor Analysis Approach. *Global Journal of Management And Business Research*. 13(13), 27-30.

- Shafi, M. (2014). Determinants Influencing Individual Investor Behavior In Stock Market: A Cross Country Research Survey. *Arabian Journal of Business and Management Review.* 2(1), 60-71.
- Shah, S. M. A., & Hijazi, S. T. (2005). Performance Evaluation of Mutual Funds in Pakistan. *The Pakistan Development Review.* 44(44), 863–876.
- Shah, S. M. A., Hijazi, S. T., & Hamdani, N. H. (2005). Performance Evaluation of Mutual Funds in Pakistan. *Pakistan Institute of Development Economics. Islamabad.* 44(44), 863-876.
- Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The Theory of Reasoned Action: A Meta-Analysis of Past Research with Recommendations for Modifications and Future Research. *Journal of consumer research*. 15(13), 325-343.
- Shinozawa, Y., & Vivian, A. (2015). Determinants of money flows into investment trusts in Japan. *Journal of International Financial Markets, Institutions and Money.* 37, 138-161.
- Sierra, J. (2012). Consumer Interest Rates and Retail Mutual Fund Flows. Bank of Canada, 1-30.
- Singh, B. K. (2012). A study on investors' attitude towards mutual funds as an investment option. *International Journal of Research in Management*. 1(2), 8.
- Sipra, N. (2006). Mutual Fund Performance in Pakistan, 1995-2004. Centre of management and Economic Research, 6-45.
- Smith, S. M., & Albaum, G. S. (2013). Fundamentals of Marketing Research. California: SAGE.
- Suppa-Aim, T. (2010). Mutual Fund Performance In Emerging Markets: The Case Of Thailand. (Doctoral dissertation. The University of Birmingham), 1-308.
- Vanaja, V., & Karrupasamy, R. (2014). Perception of Indian Investors Towards Indian and Foreign Mutual Funds. International Journal of Economic Research. 11(13).
- Velmurugan, G., Selvam, V., & Nazar, N. A. (2015). An Empirical Analysis On Perception of Investors' Towards Various Investment Avenues. *Mediterranean Journal of Social Sciences*. 6(4), 427.
- Warther, V. A. (1995). Aggregate mutual fund flows and security returns. *Journal of Financial Economics. Vol. 39* 2(3), 209-235.
- Yao, A., & Wang, H. (2013). What are the challenges and problems facing china's outward portfolio Investment? evidence from the qualified domestic institutional investor scheme. (Vol. 14). Bingley, United Kingdom: Emerald Group Publishing Limited.