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The performance Analysis of Mutual Fund Investment using Weight Product Method

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Abstract. A mutual fund is an investment vehicle that combines money from multiple investors to buy a diverse portfolio of securities, like stocks, bonds, and other assets. It is managed by a professional fund manager who makes investment decisions on behalf of the investors. Mutual funds offer individuals the opportunity to access a variety of assets and benefit from pooled investments. They can be obtained through brokers, financial advisors, or directly from the mutual fund company. Various types of mutual funds exist, each with its own investment objective and risk level. Examples include equity funds, bond funds, money market funds, and balanced funds. Before investing in mutual funds, individuals should consider their investment goals, risk tolerance, and time frame. Researching a fund's performance, fees, and expenses is also important for making an informed decision. Mutual funds provide advantages such as diversification, professional management, and liquidity. However, potential disadvantages include high fees, minimum investment requirements, and redemption fees that may deter smaller investors.

Keywords: Services Industries Fund, children fund, banking and financial.

1. INTRODUCTION

Mutual funds are an investment option where multiple investors pool their money to create a portfolio consisting of stocks, bonds, or other securities. A professional fund manager handles the management of the fund by selecting the investments and making decisions on behalf of the investors. Individual investors can benefit from mutual funds in various ways. Firstly, they provide diversification by spreading the investments across different assets, reducing the risk associated with investing in a single security. Secondly, the fund manager's expertise ensures professional management of the investments. Additionally, mutual funds offer access to a wide range of investment opportunities that may not be readily available to individual investors. They are also considered cost-effective as the expenses are shared among all investors in the fund. Various types of mutual funds exist, such as equity funds, bond funds, money market funds, and balanced funds, each with its own investment strategy and level of risk. Investors can select funds that align with their investment goals and risk tolerance. Due to these advantages, mutual funds are a popular choice for both inexperienced and seasoned investors and they are available through many financial institutions, including banks, brokerage firms, and online investment platforms. Explicitness refers to the degree to which something is clearly and precisely stated. When we talk about "long explicitness," we are referring to a communication style that is thorough, detailed, and leaves little room for ambiguity or misinterpretation. In everyday communication, people often use shorthand or assume that the listener or reader has background knowledge that allows them to fill in gaps. For example, a person might say "I'll see you at the restaurant" without specifying which restaurant they mean, assuming that the other person will know based on context. However, in situations where precision and clarity are important, such as in legal documents or technical manuals, long explicitness is necessary. Long explicitness involves providing all relevant details, defining technical terms, and anticipating and addressing potential sources of confusion or misunderstanding. This type of communication is often used in academic writing, where authors are expected to provide a thorough and detailed explanation of their research methods, findings, and conclusions. It is also used in technical writing, such as user manuals or instructions, where clarity

and precision are essential to ensure that the reader can understand and follow the instructions. In some cases, long explicitness can be seen as a form of redundancy, as it involves repeating information or providing more detail than may be strictly necessary. However, this redundancy is often necessary to ensure that the communication is complete, accurate, and free from ambiguity or confusion. In addition, long explicitness is often used in situations where safety is a concern, such as in manufacturing processes or in medical procedures. In these cases, it is important to provide clear and detailed instructions to ensure that the process is carried out safely and efficiently. Long explicitness can also be helpful in situations where there is a language barrier or cultural differences. By providing clear and detailed explanations, it can help to bridge the gap between different languages and cultures and ensure that everyone is on the same page. However, it is important to note that long explicitness can also have drawbacks. It can be time-consuming and may lead to information overload, which can make it difficult for the reader or listener to retain all of the information. In addition, long explicitness can be seen as tedious or boring, which may make it less engaging for the audience. Overall, the use of long explicitness depends on the situation and the audience. In situations where clarity and precision are important, such as in legal documents or technical manuals, it is necessary. However, in other situations, it may be more appropriate to use a more concise and engaging communication style.

Mutual funds are investment vehicles that combine the money of multiple investors to create a diversified portfolio of securities, such as stocks, bonds, or other financial instruments. These funds are managed by professionals who make investment decisions on behalf of the investors. The main advantage of mutual funds is the diversification they provide. By spreading investments across different securities, the impact of poor performance from any one investment is minimized. This is particularly beneficial for individual investors who lack the resources or knowledge to build a diversified portfolio on their own. Another advantage is the expertise of professional fund managers. They have access to market research and analysis tools that individual investors may not possess, increasing the potential for higher returns. Mutual funds are also flexible and accessible, as they can be obtained through various financial institutions and often require a relatively low minimum investment. Different share classes are available, allowing investors to select a fee structure that suits their goals. However, mutual fund investments come with risks. The value of shares can fluctuate due to market changes and the performance of underlying securities. Additionally, mutual funds charge fees and expenses, reducing investors' overall returns. It is essential for investors to carefully evaluate a fund's prospectus, fees, and consider their own investment objectives and risk tolerance before making a decision.

2. MATERIALS AND METHODS

Wight product method: WPM stands for Words per Minute, which is a measurement of typing speed. There are several methods that can be used to improve your WPM, including:

- Practice:** The more you type, the faster you will get. Set aside some time each day to practice typing, and gradually increase the difficulty of the material you are typing.
- Proper typing technique:** Using proper typing technique can help you type faster and more accurately. This includes keeping your fingers on the home row, using all ten fingers to type, and minimizing your hand and finger movements.
- Typing software:** There are several typing software programs available that can help you improve your WPM. These programs usually include typing exercises and games that are designed to increase your typing speed and accuracy.
- Typing tests:** Taking typing tests regularly can help you track your progress and identify areas where you need to improve. There are several online typing tests available that you can use to measure your WPM.
- Typing competitions:** Participating in typing competitions can be a fun way to improve your WPM. These competitions typically involve typing a specific passage as quickly and accurately as possible, and can help you develop the speed and accuracy needed to type quickly and efficiently.

Practice: The first method for improving your WPM is practice. Like any skill, typing speed requires consistent practice and repetition. The more you type, the faster you will get. To improve your WPM, set aside some time each day to practice typing. Start with simple exercises or passages, and gradually increase the difficulty of the material you are typing as you improve. Consistency is key, so try to make typing practice a regular part of your routine.

Proper typing technique: Proper typing technique is essential for typing quickly and accurately. Using the correct hand and finger positioning on the keyboard, as well as minimizing unnecessary movements, can significantly improve your WPM. The "home row" is the base position for typing, where your fingers rest on the middle row of keys (ASDF for the left hand and JKL; for the right hand). To maximize your WPM, you should use all ten fingers to type, and keep your wrists straight and level with the keyboard. Minimizing hand and finger movements can also help you type faster and more accurately.

Typing software: There are several typing software programs available that can help you improve your WPM. These programs usually include typing exercises and games that are designed to increase your typing speed and accuracy. Typing software can provide structured practice that targets specific areas of improvement. Some popular typing software programs include Typing Master, Mavis Beacon Teaches Typing, and Key Blaze.

Typing tests: Taking typing tests

regularly can help you track your progress and identify areas where you need to improve. There are several online typing tests available that you can use to measure your WPM. These tests typically involve typing a specific passage or set of words as quickly and accurately as possible. Some online typing tests also provide feedback on areas where you need to improve, such as accuracy, speed, or hand placement. Typing competitions: Participating in typing competitions can be a fun way to improve your WPM and challenge yourself. These competitions typically involve typing a specific passage as quickly and accurately as possible, and can help you develop the speed and accuracy needed to type quickly and efficiently. Typing competitions can be found online or in person, and often have different categories based on age or skill level. Overall, improving your WPM takes time and consistent practice. By using a combination of these methods, you can gradually increase your typing speed and accuracy. Remember to take breaks and stretch your hands and wrists to avoid injury, and have fun with the process.

Design of decision matrix and weight matrix

$$D = \begin{bmatrix} x_{11} & x_{12} & \dots & x_{1n} \\ x_{21} & x_{22} & \dots & x_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ x_{m1} & x_{m2} & \dots & x_{mn} \end{bmatrix}$$

The weight vector may be expressed as,

$$w_j = [w_1 \quad \dots \quad w_n], \quad \text{where } \sum_{j=1}^n (w_1 \quad \dots \quad w_n) = 1$$

Step 1. Normalization of DM

$$n_{ij} = \begin{cases} \frac{x_{ij}}{\max. x_{ij}} & | j \in B \\ \frac{\min. x_{ij}}{x_{ij}} & | j \in C \end{cases}$$

Where n_{ij} is the normalized value of the i^{th} alternative for the j^{th} criterion, $\max. x_{ij}$ and $\min. x_{ij}$ are maximum and minimum value of x_{ij} in the j^{th} column for the benefit (B) and cost criteria (C) respectively.

Step 2. Weighted normalized Decision Matrix

$$W_{n_{ij}} = w_j n_{ij}$$

Step 3. Ranking of alternatives

$$S_i^{WPM} = \prod_{j=1}^n (n_{ij})^{w_j}$$

Where, S_i^{WPM} is the ranking score of the i^{th} alternative, w_j is weight of the j^{th} criterion. Then the alternatives are ranked in descending order with highest S_i^{WPM} being ranked highest. To measure accuracy Decision making using WP and Tops Algorithms an application system that supports Has been created. Thirty student data Calculated according to their ranking. Two in predicting accurate rankings The data were calculated to determine the percentage of methods, from it were obtained two methods of accuracy and low error ratios. Perfect for each method to find the scale, in a specific section of the company Created a ranking of trainees who received an internship program. From these barriers, in Bali Digital library services at computer colleges in It was necessary to evaluate, thus Developed recommendations for service improvements. In principle, the evaluator is a specific product / project / service / Absolute about the policy under review and collecting accurate information from an appraiser, Is the process of analysis. So, in decision making Can be used as a recommendation. Evaluation is Information about the specific object Collecting, analysing and distributing. Of computer learning control Provides appropriate functionality. The path of learning objects.

3. ANALYSIS AND DISSECTION

TABLE 1. Mutual Funds

HDFC 1	growth fund
HDFC 2	children fund
HDFC 3	sense plan
ICICI 1	dynamic plan
ICICI 2	banking and financial
ICICI 3	services industries fund
UTI 1	UTI top 100
UTI 2	banking sector fund

Table 1 WPM of the green supplier evaluation alternate parameters is Kai, Zion, Jayden, Elaina, Luca, and Ezra. Evaluation parameters are Quality, Technology, Environmental, Economic and commercial Green Supplier Evaluation.

TABLE 2. Evaluation parameters

C1	risk factor(beta)
C2	annual return on market
C3	expected rate of return
C4	actual rate of return
C5	Avg. 1-5 kWh Interest rate (IECONOMICS %)

Table 2 illustrates WPM of the green supplier evaluation alternate parameters are Kai, Zion, Jayden, Elaina, Luca, and Ezra. Evaluation parameters are Quality, Technology, Environmental, Economic and commercial.

TABLE 3. Mutual Funds

	C1	C2	C3	C4
HDFC 1	0.79	18.77	10.51	26.52
HDFC 2	0.36	18.35	11.73	14.88
HDFC 3	0.95	18.32	17.8	30.47
ICICI 1	0.75	20.14	17.11	27.52
ICICI 2	0.93	5.74	5.9	16.69
ICICI 3	0.82	10.7	10.19	8.14
UTI 1	0.83	5.24	5.71	6.43
UTI 2	1.02	4.98	4.92	14

Table 3 Autocorrelation differences in flows are economically significant and very robust. Mutual funds Flows are highly auto correlated, while pension fund flows show less autocorrelation.

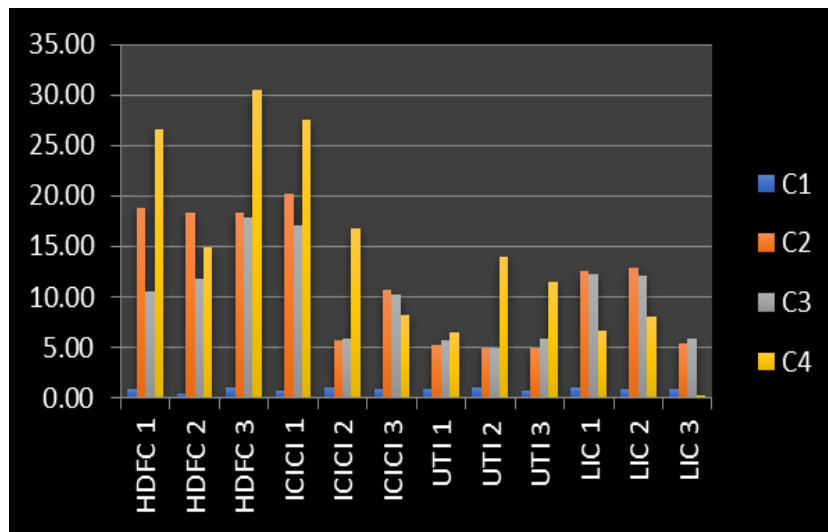


FIGURE 1. Mutual Funds

Figure 1 illustrates WPM of the green supplier evaluation alternate parameters are Kai, Zion, Jayden, Elaina, Luca, and Ezra. Evaluation parameters are Quality, Technology, Environmental, Economic and commercial.

TABLE 4. Performance Value

HDFC 1	0.83158	0.93198	0.52176	1.31678
HDFC 2	0.37895	0.91112	0.58222	0.73883
HDFC 3	1	0.90963	0.88401	1.51291
ICICI 1	0.78947	1	0.8493	1.36643
ICICI 2	0.97895	0.285	0.29286	0.8287
ICICI 3	0.86316	0.53128	0.50593	0.40417
UTI 1	0.87368	0.26018	0.28348	0.31927
UTI 2	1.07368	0.24727	0.24427	0.69513

Table 4 Performance Value shows the informational set for Rank of the taken alternate parameters. Here Zion is Rank 1 and Elaina is rank 2 while Ezra is last rank. Kai is 3rd rank and Luca, Jayden are fourth, fifth rank respectively.

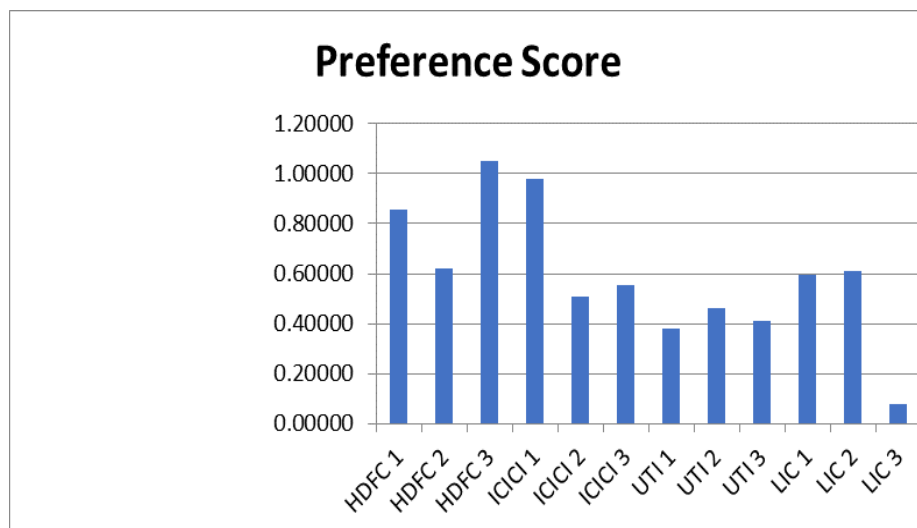


FIGURE 2. Preference Score

Figure 2 after conducting additional diagnostics, we conclude that there is a weak positive effect on mutual fund flow associated with the event of outperformance of the benchmark, and a much stronger positive effect associated with the magnitude of the outperformance.²³ Overall, we find that beating a market benchmark is a significant, discrete event only in the pension segment.

TABLE 5. Rank

Rank	
HDFC 1	3
HDFC 2	4
HDFC 3	1
ICICI 1	2
ICICI 2	8
ICICI 3	7
UTI 1	5
UTI 2	6

This table 5 shows that from the result it is seen that HDFC 3 and is got the first rank whereas is the ICICI 2 got is having the lowest rank.

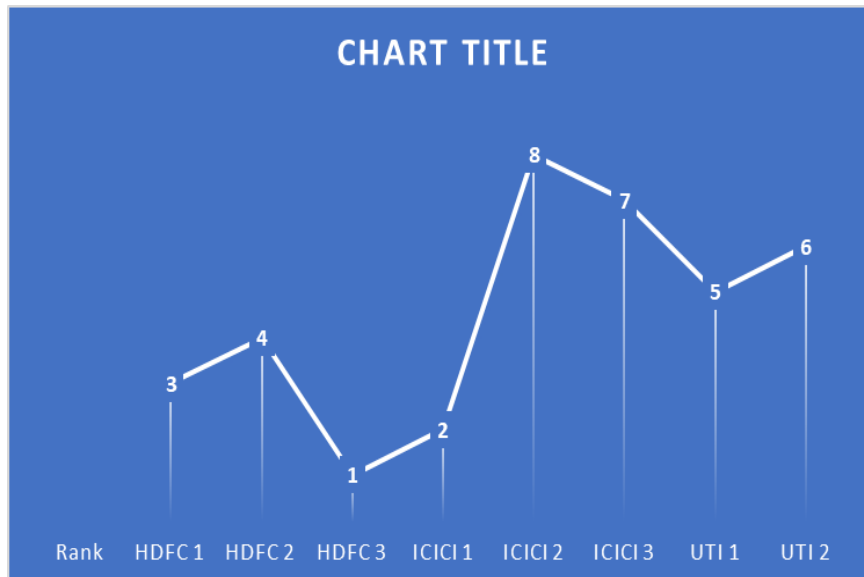


FIGURE 3. Rank

This figure 3 shows that from the result it is seen that HDFC 3 and is got the first rank whereas is the ICICI 2 got is having the lowest rank.

4. CONCLUSION

Mutual funds are a popular investment option that offers investors diversification, professional management, and access to a wide range of asset classes. They collect money from multiple investors and use it to create a portfolio consisting of stocks, bonds, and other securities. Investing in mutual funds has several advantages. Firstly, it allows individuals to have a diversified portfolio without incurring high transaction costs. This means that the risk associated with investing in a single security is spread out. Secondly, mutual funds are managed by experienced professionals who make investment decisions on behalf of the investors. This relieves individuals from the need to constantly monitor and make investment choices. Moreover, mutual funds provide convenience by offering a single investment option that provides exposure to multiple securities. Despite these benefits, there are some drawbacks to consider. Mutual funds come with fees and expenses, which can eat into the overall returns. Additionally, investors may face potential tax consequences based on the fund's activities. There is also the risk that a mutual fund may underperform and not meet the investor's expectations. Therefore, it is crucial for investors to carefully assess their investment objectives and understand the risks and potential benefits associated with mutual funds before making any decisions. Overall, mutual funds can be a suitable investment choice for individuals seeking diversification and professional management, but thorough research and selecting funds that align with one's investment goals and risk tolerance is essential.

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