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## Lecture - 40 Wrapping up

Hi there, we are discussing the course Investment Management and as part of the course, we have discussed about measures and indicators to indicate suggest portfolio performance evaluation. And in this particular session, we are going to talk about certain points that will be used to wrap up the entire discussion around investment management.

Specifically, we are going to talk about the principles or suggested rules that can be used to understand whether the management of investment or portfolio management has been successful for any investor under given circumstances or not.

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So, we are specifically going to talk about principles of successful investment management. And to start with, we would say that for an investor, it is equally important to know not only the investment goals, but also the budget and the risk tolerance. And at the same time, investors should also understand the behavioral, cognitive and human factors when it comes to incorporating decision making in with respect to investment.

So, to start with when we talk about investment goal, as we discussed in the very beginning, any investors should have a well written articulated and thought out investment objective or goal with regard to any investment decision that she is making. For example, I cannot have an investment goal such as I want to become double as rich I am right now.

I need to have a very clear cut, well defined investment goal such as to earn X percentage of return on my investment or to earn this much amount of money within a given period of time.

Similarly, when we defined our investment goal, we need also we need to set investment budget. We should be able to figure out what portion of my total income should be invested in different assets that we have been contemplating or discussing.

As an investor particularly retail and small as well as marginal investors, they should know certain proportion of their total income should be invested in different types of assets and those assets can include stocks, bond, mutual funds or any other alternative investment as well. While taking decisions with regard to asset allocation or setting the budget and using that budgeted allocation to invest in different financial securities, it is equally important for an investor to know their risk tolerance.

Every investor should know what kind of investor they are and how much they can afford to lose given that budget as well as investment objective. That affordability to lose certain portion of investment is typically defined as the riskiness or risk tolerance. For many investors in their early phase, they are more willing to accept higher risk, but when it comes to an investor with a senior age, typically they are more risk-averse and they are not willing to lose much amount of money or much part of their investment.

So, in early age, many people show or exhibit risk seeking behavior while people with senior age and those who are on the verge of retirement, they exhibit risk-averse behavior in general. While discussing these aspects, we cannot ignore the behavioral and cognitive issues that affect investor investment decisions.

Particularly for example, heuristics and biases, beliefs, tendencies of investors when it comes to investment decision making such as overconfidence. We have seen through empirical research and popular press articles that men tend to trade 45 percent more than women and this leads to their annualized return to build 2.7 percent less than their peers. Similarly, if we narrow it down further, single-men trade 76, 67 percent more than single women and their annualized return were 1.4 percent less than their peers.

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These kind of tendencies are reflected in several lines of research around behavioral finance, where we understand the behavioral tendencies or cognitive issues related to investment management. And it also helps an investor to understand these behavioral issues as well as cognitive factors that might affect our investment decision making.

For successful investment management strategy, there are 6 steps that we need to follow. To start with, we need to identify what are the financial markets and how do they operate. Any investor, be it naive or expert should know what financial markets are and how they operate.

It is important that we learn the basics of financial markets and financial market operations before we actually begin investing. A primary level understanding of financial markets, their functioning and microstructure is very much helpful because then we should be able to know what we are getting into.

Next comes, what are the major financial instruments or assets and what are their advantages, disadvantages such as risk and return? As an investor, learning about financial assets is important since this is what we are getting into or we will be investing into. So, we need to know what assets we are investing our money into.

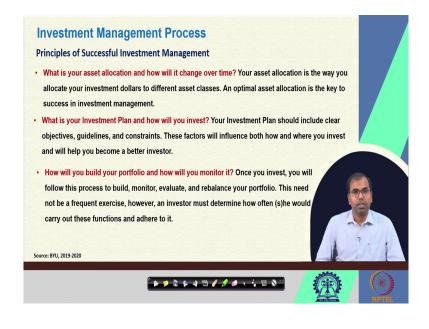
For example, as a naive investor having no background or no understanding of cryptocurrency, if I end up investing my hard earned money or savings into cryptocurrency and for unfortunately, I lose, I would be blaming myself or I should be blaming myself because I got into something that I did not have any understanding of.

So, we need to first understand different financial instruments or assets and their associated characteristics particularly with respect to return and risk. We should not get tempted just because of returns are high or risk is low. We always should compare risk and return to understand the risk return trade off before we get into any investment asset.

Then comes the asset classes and their importance. Every investor should know what asset classes are and why they are important. Particularly, asset classes such as equity, fixed income, liquid assets or cash, they have different risk and return characteristics.

Risk return trade off for each of these asset classes is very much different from each other and understanding asset classes is critical since investment returns are largely the result of an investor's asset allocation or the allocation of resources between different asset classes. We have seen earlier that when we have to allocate certain amount of money across different asset classes, our selection of securities depends on what asset classes we are getting into.

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And subsequently how much of my total fund is getting into which asset class is going to determine what my total return would be or what my total risk of the portfolio would be eventually. So, it is very much critical to understand asset classes, their associated characteristics particularly with respect to risk and return.

Because this will eventually determine how much money I am going to make as an investor while investing in those asset classes. Next is about the asset allocation and how it should change over time. We have learnt that after a security selection we need to understand the allocation of total investment fund across different securities and different asset classes.

Our asset allocation is the way we allocate our investment dollars or investment funds to different asset classes. If I have 100 rupees and I have identified that I will invest in both equity and fixed income securities, then I need to first identify how much of my total money

that is 100 rupees should go into equity assets and how much of my total money should go into fixed income assets.

An optimal asset allocation is essentially the key to success in investment management. We have learnt earlier that by using mean variance optimization or any such similar techniques, we can understand or we can figure out what portion of money should ideally be allocated to different assets based on their risk and return characteristics.

And if we follow these kind of tools, if we apply these kind of methods to allocate our assets across different asset classes and across different securities within asset classes, then we should eventually be better off in terms of returns or lesser risk. Next comes the investment plan and how we want to invest? Our investment plan should include clear objective guideline and constraint just like we use the objective function and the guidelines and constraints particularly when we were discussing about asset allocation.

Similarly, our investment plan should also have a clear cut or investment objectives. How we are going to achieve those objectives and what are the constraints that we should be operating with. These factors essentially influence both how and where our investment should go and how it will help us become better off financially.

If we have an investment objective of earning certain percentage of return over a period of time, we should also identify or suggest the guidelines using which we will achieve that objective and the constraint that that we should be operating with. And finally, how we build our portfolio and how we monitor it is also of importance.

Once we invest in any assets or asset classes, we typically follow the process to build, monitor, evaluate and rebalance our portfolio. We typically start with building a portfolio which is basically investing in different assets and build a portfolio of diversified investment. Then we monitor how each of the components of the portfolio is doing or performing with respect to certain benchmark.

For example, if we have invested in equity asset classes, we can monitor whether equity asset classes or equity assets that we have invested in are doing better or worse than the benchmark portfolio or benchmark index. And then we evaluate their performance periodically.

And finally, if some of the assets are not doing well compared to the benchmark portfolio or benchmark index, then we rebalance our portfolio by selling the losers and holding on to the winners. However, this rebalancing or monitoring or evaluation for that matter should not be a frequent exercise.

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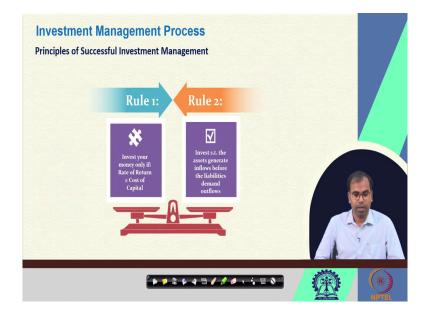
And investor must determine how quickly, how often he or she should carry out these functions, whether an investor should do this monitoring, rebalancing, exercise every day or every week or every month or every quarter. That depends on the investment horizon, market conditions and risk tolerance level of the investor.

But typically, these should be defined in the very beginning and an investor should adhere it to the holding period for the whole time. With these 6 steps or rules for successful investment management, we know that risk is an integral part of all investment activities. We know that risk is inherent in all activities that we undertake as part of investment management.

There are different types of risk that we should be aware of. For example, there is inflation risk; there is business risk, interest rate risk, financial risk, market risk, political and regulatory risk, exchange rate risk, call risk and liquidity risk. And these all these risk might not necessarily be affecting all assets that we are investing in at the same time.

Certain assets have higher level of risk for of certain types. For example, if I am investing in international assets, those assets might have more exposure towards or more they will be affected more by exchange rate risk or political and regulatory risk and so on. But once we invest, we need to understand we should invest at a risk level that we are comfortable with. As an investor, we should find that risk level taking a risk tolerance test that might be helpful.

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We should take some standardized risk tolerance test that are available in the market, mostly free to understand or to get a sense of how much risk we can tolerate. Our risk taking capability will be helpful, if we understand our risk taking capability, then we can accordingly decide how much money should go into which type of asset with what level of risk return trade off.

We know that for successful investment management, there are several rules that we need to understand. And to narrow it down at the end of the session, there are 2 major rules that we should never forget as an individual investors.

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The Rule number 1 says, we should invest our money only if we have a rate of return on investment more or at least equal to the cost of capital. And second rule states that we should invest in such a way that the assets where we are investing in should generate cash inflows or inflows before the liabilities demand outflows.

If we try to understand these rules, the first rule is about investing money where rate of return is higher than the cost of capital. As an investor, we should never invest our money without ensuring that the asset that we are acquiring can generate a return that is at least equal to the cost of capital because every penny, every rupee has a cost, none un free.

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So, we should invest in any asset that generates higher rate higher than cost of capital. So, if I borrow money or if I have a money that has a cost of capital of 6 percent, my investment should always be in instruments in assets that generate more than 6 percent of return or if not more at least equal to 6 percent so, that I should not be losing the value of my investment.

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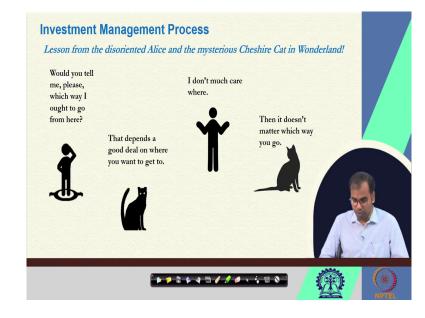


Similarly, second rule says that for a financial healthy organization or individual, we should use long term funds for long term purposes and short term funds for short term purposes.

Some long term funds may be used for short term purposes, but we should never use short term funds for long term purposes, which means we should invest in assets such that assets start generating cash flows and that cash flow can be used to pay off the liabilities. And these 2 rules combined together will be helpful for balancing the balance sheet of individuals just like we do it for an organization.

Here for individuals also we have liabilities of 2 types short term and long term and in case of assets we have 2 types short term or fixed long term assets that are fixed assets and short term assets that are current assets or short term usage of funds and long term usage of funds. Typically, we should invest long term sources of funds or the money that comes from long

term sources of funds to long term usage of funds and short term sources of funds should be used for short term usage of funds.

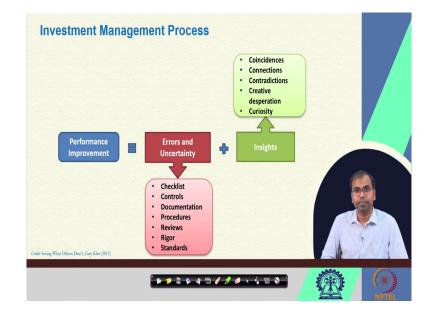


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And if we are successfully able to do this balancing, we probably be ending up with a better being better off financially both in terms of earning rate of return that is higher than the average rate investor and also maintaining the sustainable rate of return in coming future.

If we want, we have to conclude we can take this lesson from the disoriented Alice and the mysterious Cat in the Alice in Wonderland context where you may ask as an investor that would you please tell me which way I ought to go from here.

And then the response will come as the way that we select for further action or further course of action depends on the goal or the objective that we have in terms of where we want to go. And if we are not sure about where we want to go with what goal we want to achieve, then it does not matter whether which way or which path we adopt.



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So, just like this for a successful investment management process it is very important for an investor to know what investment objective or what investment goal he or she might have to achieve. And then to achieve that goal clear cut guidelines should be there along with that there should be constraint that must be identified and defined beforehand. Then only that goal can be achieved within the given time period along with the constraint that the investor is operating with.

Just to end up this session, I would say that in any investor should always try to error reduce the error and uncertainty particularly errors with respect to the checklist, controls, documentation, procedures, reviews, rigorous standards. These processes these inputs help reduce the errors and uncertainty where if we have checklist about what behavioral or cognitive issue we should avoid, what kind of investment advice we should look out for, what sources of information we should use for taking decisions.

These factors might help us reduce errors and uncertainties and we should always try to enhance the insights that might come from coincidences, connections, contradictions, creative desperation and curiosity. And enhancing the insights where we can be following curiosity or contradictions or connections to generate new insights that can be helpful.

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With this I end up this session and we at the same time conclude this course investment management and look forward to see you on the other side.

Thank you.