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APPLICATION OF FINANCIAL RATIOS FOR EFFECTIVE PERSONAL FINANCIAL PLANNING

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Abstract
Change is dynamic and constant. There will be many booms and busts in the years to come. Financial pressure of all the countries, organization and individual is increasing and becoming complex. Therefore healthy financial well-being and life satisfaction is gaining priority. To achieve financial goals with limited resources, domestic as well as global capital market is offering variety of financial products to all. Investment funds significantly gaining popularity among personal financial priorities. As a result, personal financial planning has become not only important but also necessity in today's inflationary world. It is a process of assessing the financial needs of an individual that arise at different stages of their life span. This concept paper reviews the various factors affecting personal financial planning. It also pinpoints how ratio analysis technique will offer potential to individuals in financial decision making.

Objectives

1. *To assess importance of personal financial planning and factors affecting it.*
2. *To study various financial ratios for personal financial planning.*
3. *To assess the utility of ratio analysis in personal financial planning.*

Research Methodology
This research paper is based on primary as well as secondary data. In this paper we have undertaken study of personal financial planning and elaborated the application of ratio analysis as a technique for personal financial planning. We have derived theoratical information from secondary sources like websites, journals, magazines and books. Here we have used case study approach for calculating different ratios for personal financial planning. Data regarding various financial aspects has been collected by using questionnaire. Financial data has been collected from completely filled questionnaires by respondents working in different areas. Out of total responses received, 5 representative responses are considered while selecting sample.

Key words: Personal Financial Planning, Ratio Analysis, Inflation, Financial Decisions and Priorities.

INTRODUCTION

Every individual desires to have a healthy financial well-being and better life style. This is possible only with the help of effective financial planning.

Money management without cautious priorities can result into financial crisis. To avoid this situation the forces of technology and market innovation, driven by increased competition are offering a broad spectrum of services by wide array of providers. If individual wishes to manage their finances effectively they need to have active participation in the market. Over the past decade, technological advances have transformed nearly every aspect of the marketing, delivery and processing of the financial products and serve customers more efficiently.

Any financial decision taken by an individual is based on the complex persuasion of both internal as well as external factors. Interaction of such factors shapes the financial behavior of an individual.

Every human being is different in their own ways. So, they are deciding about their personal financial necessities depending upon their priorities. How an individual takes financial decision also depends upon his level of financial education/ knowledge. Education is the foundation of success. Robert Kiyosaki said that money is one form of power. But what is more powerful is financial education. Money comes and goes, but if you have the education about how money works, you gain power over it and can begin building wealth.

It is necessary to ensure that the right amount of money is available to the investor at the right time to enable him to meet different goals in his life. To verify whether sufficient funds will be available or not at the required time and how to utilize the available funds could be known with the help of financial ratios.

NEED FOR PERSONAL FINANCIAL PLANNING

We all know about our life goals. The need for personal financial planning arises from the need to meet the financial goals that enable the achievement of our life goals. These are determined by understanding of the present situation, status, income

level, wealth priorities, responsibilities, aspirations, risk profile, ability to save, past and present life style, etc. It requires a deep analysis of our current financial position and future requirements.

In today's inflationary world with inflationary trend and soaring prices of food, accommodation, fuel etc., it is impossible for the working man to live solely on his regular salary. Money is a limited resource; it should be spend economical as our spending decisions are not always rational, but subconscious and emotional.

In the current scenario the life expectancy has been increased and at the same time cost of medicines, hospitalization, primary checkup, medical treatment etc. are also increasing. If one wants to live a healthy life he has to make provision for the same especially for rainy days when there will be no inflow of funds and everything is required to be managed within limited resources.

Similarly, now a day we all are facing a problem of continuous hike in petrol and diesel prices which is affecting everyone. Since all commercial vehicles run on diesel, it has increased cost of public transport which leads to increase in the cost of vegetables, grocery items and other daily required items. It has collapsed daily family budget and leads to heavy expenditure on these necessities. This problem can be solved either by planning for these expenses or by finding out additional source of income.

When we are thinking of giving the quality education to our children and praying for their bright future the most important thing is we should plan for the expenses to be incurred in future taking into consideration increasing cost of education and inflation rate.

Personal financial planning needs a deep analysis of an individual's current position because when a person is saving money, he is sacrificing his present needs for the future, so he should be compensated for the same. Secondly, in an inflationary period, money today represents more purchasing power than money tomorrow. It is the rate at which cost of living increases. It causes money to lose value because it will not buy the same amount of goods or services in the future as it does now or did in the past.

FACTORS AFFECTING PERSONAL FINANCIAL PLANNING

An individual's success in financial planning is influenced by both internal & external environmental factors.

- **Internal environmental** factors include an individual's current and projected financial situation, tolerance for risk, discipline regarding savings & investments, consumption patterns, life cycle position, attitudes & beliefs regarding special needs and financial goals.
- **The external environment** is made up of a variety of external factors that are broad in scope but have at least direct or indirect influence on the personal financial planning process. Relevance of external environmental factors is depending on the investor's age, goals, family priorities, expected net worth or income.

Economic environment which includes factors like GDP, inflation rates, unemployment, changes in monetary & fiscal policy, increase or decrease in tax rates, technological advancement and its cost along with political factors affects personal financial planning.

The process of personal financial planning can become more effective with the help of personal financial ratio analysis.

RATIO ANALYSIS

Ratio analysis provides important early warning indicators that allow an individual to initiate precautionary measures to avoid possible financial crisis. Ratios proved helpful in detailing the strengths and weaknesses of investment alternatives available to the organizations as well as individual investors. Financial ratios are made for comparisons not just between equivalent time periods but looking at the effect of certain financing decisions. By conducting comparative financial ratio analysis it becomes easy to judge how close you have come to your financial goals and the necessary actions you will need to take. In case of business organizations financial ratios keep managers of businesses on their toes when they are used to evaluate their performance. Ratios are used to assess liquidity, solvency and financial position of a particular family, organization or economy.

As an individual seeks to improve the management of their limited and scare resources to develop plans for strengthening their financial position in the future, a first step is to determine their personal financial portfolio. Personal financial ratios work as a guide to evaluate the financial position of an individual based on different formulas. A popular tool used to determine financial well-being is the net worth statement.

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Personal financial ratios could provide the family with information about the liquidity of their net worth, their solvency and their financial position in relation to a number of personal financial goals.

RATIOS FOR PERSONAL FINANCIAL PLANNING

Personal financial planning which has become an important part of human life can become easy with the help of personal financial ratios which are applied to determine financial planning. There is a fundamental relationship between income, savings, possible financial risk and provision for it because Income – Expenditure = Savings. Surplus savings lead to investments. When an individual thinks of making investment, the question of risk arises. Inferences of ratio analysis provide opportunity to accommodate expectations and market fluctuations. They give an idea about the financial position to an individual i.e. how much funds are available, what is the asset an liability position, risk appetite of an individual etc.

Analysis of financial ratios involve several factors, as the adequate ratio will be different for each individual depending on the factors like life cycle stage, wealth cycle stage, financial status of family, number of earners in the family and the state of economy etc.

When a person is young and in the accumulation stage, his risk bearing capacity is at its highest, he has more debts as assets will be built by borrowings. When a person reaches the transition or reaping stage his debts will be paid off and his asset base will also be large. It means that level of borrowings decreases and asset base becomes strong as the age increases.

Though there are various ratios to determine profitability, liquidity, solvency and financial position, following are some important and useful ratios which one can consider for sound financial planning.

1. **Basic Solvency (Liquidity) Ratio** = Liquid Assets(cash or near cash assets) / Monthly expenditure

This ratio provides insight into the adequacy of liquid asset holdings to cover monthly expenses if a family experienced a sudden loss of income due to interruption of employment or any emergency situation. A reasonable standard for a specific family might vary by the number of earners in the family, the availability of credit to handle emergency situations, and the stability of employment of family members in their present occupation.

This ratio considers position of liquid assets and monthly expenses.

Liquid assets are those assets which are in spendable form or easily and quickly converted to cash whenever required. They include cash balance in savings account, bank fixed deposits, liquid mutual funds and cash in hand.

Monthly expenses include all mandatory contribution of loans, EMIs, Insurance premiums and household expenses like food, utilities, transportation, medical care, education etc.

This ratio is used for contingency planning. It is suggested that monthly expenditure of more than or equal to 3 months is good to have. As the age increases, this ratio is expected to increase because money for emergency purposes need to be set aside for longer duration and other monthly expenses automatically come down.

2. **Liquid Ratio or Liquid Assets Coverage** Ratio = Liquid Assets/ Total debt

This ratio examines the relationship between liquid assets and total debt obligation of the family. This ratio evaluates the financial capability of a family to repay some of its outstanding debt using liquid assets whenever unexpected financial situations arise. Another use of this ratio is its use along with other debt related ratios in determining whether the family has overborrowed or has maintained a debt level within reasonable limits given the family's level of liquid assets. A value above 0.1 provide a comfortable liquidity cushion. This ratio will depend on the age of the person. A young person in the accumulation phase will have a higher amount of debt. Since this ratio will depend on age, there is no such fixed standard for this ratio.

3. **Liquidity Ratio**= Liquid Assets/ Personal Net Worth

Personal financial ratio that can be calculated by considering all assets that can be converted into cash quickly, say within 3-4 days, is called the liquidity ratio.

This ratio measures the proportion of total net worth held in liquid form. Such type of net worth component ratio should be evaluated in light of the family's specific financial goals rather than against an objective standard. The same standard could not be applied to a family with short term savings goals like vacation or purchase of new furniture. This can be used to determine if a family is holding too much of their total net worth within liquid form. Liquid assets have a low rate of return;

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therefore a very high value for this ratio might indicate a need to shift some assets into financial vehicles with higher earning potential.

An ideal liquidity ratio of 15% is recommended as good. Higher ratio means net worth is more liquid. If the level of this ratio is more than recommended one may has to check whether part of his investment assets can be turned into cash or cash equivalents. If the ratio is too low it indicates the inability to pay off obligations and too high shows inefficient utilization of cash.

4. **Savings to Income Ratio**= Savings or Monthly surplus/ Gross income or pre tax monthly income This ratio indicates the amount an individual sets aside for his future goals.

Savings include any form of savings like fixed deposits, mutual funds, liquid funds, equities, bonds, debt, PPF, post office small saving schemes and others where an individual saves on regular basis.

Gross income includes income earned through business, profession or in the form of salary, bonus, EPF contribution, interest, dividend, rent/ royalty and any other form of income.

The ideal savings ratio is at least 25%. It means that an individual should save at least 25% of his gross income every month. The more the percentage, the merrier it is. Ideal ratio depends on the age of a person. It should be always high so that an individual is ready to face any financial emergencies.

5. **Debt to Income Ratio**= Monthly debt/ post tax monthly income
This ratio shows the total monthly income spend towards servicing any kind of debt i.e. home loan, car loan, personal loan etc. The idea behind using this ratio is to move from high debt & low savings to low debt & high savings.

A young person, say around 30 yrs.old, will have more debt than of 55 yrs. old person. Therefore the ratio will be higher at the age of 30 and lower or zero at retirement age. The lower this ratio, better it is. It is suggested to keep debt below 40-45%. This ratio will be higher at the age of 30 and lower or zero at retirement age. The lower this ratio the better it is.
The general guideline is to keep your debt below 40% - 45%.

6. **Debts to Assets Ratio**= Total Debt / Total Assets
It provides information of our ability to pay debts with available assets. As all liabilities must eventually be settled, this is a broader measure of our liquidity position and provides a view of our solvency.

This ratio has got to be 50% or lower to make sure that an individual is in a healthy debts payment position.

7. **Life Insurance Coverage Ratio**=(Net worth+ Death benefit of principal wage earner)/ Salary of principal wage earner
This ratio takes care of the insurance needs of an individual. It considers whether he has adequate amount of insurance coverage and also property protection cover. It also covers whether he has provided adequately for his family and if the insurance cover and other assets will take care of the future financial needs of the family.This ratio will determine how many years of salary one has provided for his family.

Following financial data for calculating personal financial ratios has been collected from different respondents. The collected data has been presented in a tabular form followed by different ratios.

Fin. Data	Respondent 1	Respondent 2	Respondent 3	Respondent 4
Liquid Assets	70,000	6,00,000	2,00,000	2,00,000
Total Debt	4,88,000	30,00,000	36,00,000	12,50,000
Net Worth	12,00,000	35,00,000	24,00,000	51,50,000
Total Assets	5,00,000	65,00,000	60,00,000	64,00,000
Monthly Debt Repayment	10,715	40,000	36,000	15,000
Monthly Income	85,000	1,35,000	85,000	85,000
Annual Income	10,00,000	16,00,000	10,00,000	10,00,000

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Monthly Expenses	39,000	75,000	52,000	45,000
Monthly Savings	10,000	30,000	20,000	15,000
Age	31 yrs.	29 yrs.	36 yrs.	37 yrs.

On the basis of the above collected data, following ratios are calculated.

Ratios ⇩ Respondent ⇨	**R 1**	**R 2**	**R 3**	**R 4**	**Ideal ratio**
Liquid asset coverage ratio	0.14	0.2	0.056	0.16	will depend upon age
Basic liquidity ratio	1.79	8	3.85	4.44	3-6 months.
Liquid Assets to Net Worth ratio	0.0583	0.17	0.083	0.039	15%
Debt to Assets ratio	0.976	0.46	0.6	0.19	50% or lower
Debt Service ratio	0.126	0.296	0.423	0.18	keep debt below 40-45%
Savings to Income ratio	0.12	0.22	0.24	0.18	at least 25%
Life insurance coverage ratio	0.012	9.06	2.8	6	

Inferences

1. Liquidity ratio in case of R1 is o.14, R2 is 0.2, R3 is 0.056 and R4 is 0.16.
   Liquidity ratio which evaluates the financial capability of a family to retire its debt using liquid assets depends upon the age of a person. Only R3 is having this ratio below standard. So, there are chances that he may face difficulty while paying the debts.

2. Basic liquidity ratio for R1 is 1.79, R2 is 8, R3 is 3.85 and R4 is 4.44.
   Ideal liquidity ratio is to be 3-6 months. R1 is having it 1.79 i.e. approximately 2 months which is below standard. R2 is having 8 months which indicates that he is having sufficient funds to handle emergency situations, R3 is having it around 4 months and R4 is 4.5 months which fits in the given standard.

3. Liquid assets to Net worth ratio of R1 are 5.83, R2 is 17%, R3 is 8.3% and R4 is 3.9%.
   A liquid asset to net worth ratio of 15% is recommended as an ideal ratio. R1 is holding 0.0583 liquid assets. Since this ratio is below 15% R1 has to see if part of his investment assets can be turned into cash or cash equivalents. R2 is having it 17% which is little bit above the ideal ratio indicating safe position. R3 has 8.3% which is below standard. So he too is required to convert some of his assets to liquid assets. R4 is 3.9% which is too low to reach the ideal.

4. Debt to Assets ratio for R1 is 97.6%, R2 is 46%, R3 is 60% and R4 is 19%.
   Debt to Assets ratio of 50% or lower suggests healthy debts payment position. R2, R3 and R4 who are having this ratio 46%, 60% and 19% respectively are maintaining the standard ratio but R1 who is having it 97% which indicates that he is not solvent enough to make debt payments.

5. Debt to Income ratio of R1 is 12.6%, R2 is 29.6%, R3 is 42.3% and R4 is 18%.
   Lower Debt to Income ratio is recommended as good ratio. It is advisable to keep debt below 40-45%. R1, R2, R3 and R4 are having this ratio 12.6%, 29.6%, 42.3% and 18% respectively. Taking into consideration the ages of R1, R2 and R4 they are maintaining this ratio by keeping it below the standard which is good for them but R3 who is 36 years old and is within the given standard should try to reduce it because this ratio is expected to get reduced with age.

6. Savings to Income ratio of R1 is 12%, R2 is 22%, R3 is 24% and R4 is 18%.
   According to general guidelines, savings to income ratio should be at least 25%. Here R1, R2, R3 and R4 are having it 12%, 22%, 24% and 18% respectively which is below the standard. They all need to increase their savings in proportion to their income.

7. Life insurance coverage ratio for R1 is 0.012, R2 is 9.06, R3 is 2.8 and R4 is 6.
   In case of life insurance coverage ratio R1 is having it the lowest i.e. 0.012 because he has not taken any insurance policy to protect his family after his death. R2 is having it 9.06 which indicates that his policy cover can help his family for 9 years even after his death. R3 and R4 are having this ratio as 2.8 and 6 respectively. This is assumed taking into consideration the current expenditure pattern of the family. It is also said that expenses of the family may decrease after death of earning member of the family. This ratio also depends upon the number of earning members in the family.

CONCLUSION

Ratio analysis is an important tool in personal financial planning. Ratios help to know the financial structure of individuals. Though ratios are calculated on the basis of past data, they work as an indicator for personal financial planning. With the help of ratios it becomes easy for an individual to understand; financially where he is and where he wants to be in future. Since age is also an important factor, ratios guide individuals how much risk they should take at what age and how to secure their debt free future to enjoy their retirement with maximum savings and zero debt position.

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