Coventry University

School of Computing, Engineering and Mathematics

**The applications of financial statement analysis on personal finance.**

How to improve the understanding of personal asset growth in financial statements?

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***A project proposal and initial literature review*** *for a BSc Computer Science Final Year Individual Project (6001CEM) and partial fulfilment of the 6000CEM – Individual Project Preparation module coursework.*

**26th December 2021**

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# Detailed Research Question

How to improve the understanding of personal asset growth in financial statements? Through this project, my research aims to study the application of financial accounting sheets, personal assets, and what elements should be included in the project. In recent years, many discussions on how to be financial freedom over the internet. However, much research claimed that there is not a small amount of people, the “moonlight clan”, who spend all their income every month, even exceeding their monthly income (“4 post-90s”, 2018). There is a bizarre and unrealistic social phenomenon that people who are without enough capital accumulation to implement their dream of financial freedom. This project provides a management platform for people who want to implement financial management and achieve financial growth until financial freedom; it aims to determine the effectiveness and relationship between finance growth and financial management.

My initial plan crafts a financial management application tool, financial accounting sheets, which explicitly show the finance statement. There financial accounting sheets are studying for income, expenditure and budget. When the budget plan data is inserted, an analytical function estimates the financial freedom target, referenced by the “Four Percent Rule”, and provides a financial health tracker. The project's objective is to lead the user or owner to achieve a healthy financial balance, and step by step, to accumulate enough capital to accomplish financial freedom eventually.

# Research Question

How to improve the understanding of personal asset growth in financial statements?

# Keywords

Financial accounting sheets

Financial analysis

Financial freedom

Expenditure

Budget

Financial balance

# Project Title

The applications of financial statement analysis on personal finance.

# Client, Audience and Motivation

The project is essential. Money is indispensable, and as the old saying goes, “No money, no talk.” Because money had already been surrounding everyone’s life, financial management had become one of the most important topics for everyone. This application is recommended for those stressed about money and who want to attend to some financial goal.

What can financial management achieve? Financial management can help find something important (e.g., personal financial status, expenditure in a plan, and managing the cash flow) in everyone portfolio. That means it shows the limitation and capability of personal finance. In other words, it is capable of managing risk. Good financial management would include crisis management that set up some resources for unexpected expenditure to take over unnecessary risky, for example, suddenly unemployed and illness. Those resources can get through tough times (Whatman, 2021).

Besides, every income probably spends more than 40 hours a week. In order to maximize returns from working, spending should be consciously and carefully, otherwise more time may be spent on work probably, and less time can be spent on gathering with friends, family and the rest (Investopedia, n.d.).

Moreover, financial management would free from debt risk and reduce loan stress (White, 2018). Furthermore, it can determine the owner's financial status and maximum repayment capacity as mentioned before. In other words, the debt ceiling would be discovered in financial management. Moreover, the owner can effectively control the cost of debt and avoid over loaning.

Financial management is also the first step toward achieving a goal or wanted target. Personal self-satisfaction would be developed during this period (Investopedia, n.d.). One of the management skills, budgeting, can be guided by the priority of money used by setting any desired financial goal.

# Primary Research Plan

This project's research question is, “How to improve the understanding of personal asset growth in financial statements?”

The primary research plan in my project includes information finding in the concept and the implementation. It would study financial statements, budget plans, income and expenditure sheets, and financial freedom for information finding. After finding the information, the relationship between that information would be studied and researched of those elements. Moreover, there are some analyses of the limitation, pros and cons of those information. This project will develop an application in Angular programming language. Angular is a new type of language maintained mainly by Google (Angular, n.d.). This programming language is capable of supporting different platforms, mobile and PC. Both sheets are crafted on Angular, including the budget, income and expenditure and statement, and determining the financial freedom target.

## Financial Statements

Financial statements consist of a set of accounting sheets, including balance sheets, income statements, and cash flow statements (Murphy, 2020). These statements are written records that convey personal financial detail. Personal assets can be separated into two categories, tangible assets and intangible assets. Intangible assets are non-physical assets that cannot be priced in the market, such as copyright or patents. Due to the limitation of counting intangible assets, this part would not be discussed in the project. This section would focus on some significant and fluidity assets, bank statements, credit card statements, investment statements, and cash statements about tangible assets. The outcome presentation would be straightforward. Those data can be used to analyze the status of personal finances and evaluate the financial health and growth potential.

## Budget Plan

A budget plan is one of the application elements required to collect. Furthermore, it is considered the main dish of this application. It guides the money expense way, leading to income and expenditure status in balance (Ganti, 2021). It enters the planned monthly income and expense in different categories during budgeting. The expenditure would be organized in this process, and reasonable amounts would be re-considered in the budgeting plan.

Moreover, the remaining amount would be the extra budget for the budgeting plan. This gap is an essential part of the personal financial growth factor in the whole financial plan. Besides, this plan is used not only to predict the amount of current expenditure, but it also counts future expenditure when attending finance freedom. In other words, when the more money is saved, the more growth is looked for.

## Expenditure Sheet

The expenditure sheet is one of the application elements that should be daily used. The sheet records the expense daily and compares it with the budgeting plan to prove the income and expenditure status in balance. Thus, it would be like a supporting document role in this project. This tracking on expense process seems to be a preventive health check that is one way of staying financially healthy. During processing, self-confidence would be built generally because of experiencing everything under control and avoiding unexpected financial troublesome and risks. By tracking expenses, financial gaps will be learned to fill, and a reasonable expense habit will be developed. More expenditures are under controlled, the financial freedom would be closer.

## Financial Freedom

In this project, financial freedom will become every user's goal and motivate users to stick to the budget plan. What is financial freedom? Financial freedom is a financial status that describes someone with enough money to support any desire (Christensen, 2021). In other words, financial freedom means that our money works for us instead of being workers and working for money.

In my view, the status of financial freedom is as similar as retirement. Both can be described as enjoying life and living freely.

While searching some retirement information, there is a popular retirement strategy called “Four Percent Rule”. Retirees can withdraw 4% from the portfolio to cover the total amount of annual expenditure every year. This kind of strategy can provide a predictable and stable income after retirement.

Although there is a bug, this strategy is outdated and hard to adapt to the current fierce market (Kagan, 2021), this concept is very useful. For example, when there are one million dollars, four hundred thousand dollars can be withdrawn per year for 25 years without calculating any investment return. However, when considering extending the withdrawal period from 25 years to the user’s 100 years of age and adding up an element of total annual expenditure, this calculation would be calculated the total amount required before dead. This amount is considered a total amount of financial freedom target in this project.

Besides, passive income would be counted in the calculation when a user has any investment in a personal portfolio. When the passive income is already greater than total expenditure, it means that there will be enough spending to satisfy life and attempt financial freedom. On the other side, when the passive income can not overcome the expenditure, it can support and make up for the problem of insufficient funds. After searching the average life expectancy in Hong Kong, there are 86 years. Therefore, this calculation method is considered a conservative estimate that the total amount would be existing some flexibilities.

On the other hand, we understand that people have different needs and plans at different stages. Therefore, the budget plan can be changed while meeting different needs and targets. Moreover, the financial freedom target would also be changed. If any factor is changed, the dashboard will print the result.

# Abstract

When you want a steady growth of wealth, it is not enough to rely only on continuous savings. At this time, understanding wealth management is becomes more and more critical.

To be honest, managing wealth is one kind of life planning, and it can be considered as another kind of wealth savings. It is undoubtedly beneficial for wealth growth. In fact, money is inseparable from every moment of our lives, rent for housing, water bills for drinking water, electricity bills for lighting at night. Financial management allows us to know where every single dollar is used, our own spending habits, and the pros and cons of our current spending habits. Ideally, users can reflect on themselves and make changes for themselves.

Managing wealth inspires us to know how to value every dollar, learn to allocate resources, stabilize income and expenditure and, effectively maximize the use of money.

In order to deepen the understanding of how to perform wealth management, this literature review has collected financial relevant concepts and definitions, made an analysis, and put forward the corresponding advantages, disadvantages and limitations.

# Initial/Mini Literature Review

## Introduction

The applications of financial statement analysis on personal finance.

According to the “Consumption Report of Contemporary Youth”, more than 86% of post-90s generations is in debt and most of which is spent on luxury goods and entertainment (“Consumption Report”, 2021). In addition, the “moonlight clan” phenomenon is prevalent. A news report that one out of every four people is a clan member who spends all income before the end of the month (“4 post-90s”, 2018). Many people spend money irregularly and even show signs of excessive consumption. There is a crisis issue.

On the other side, Warren Buffet claimed that “If you buy things you do not need, you will soon sell things you need.” (Franklin Templeton, n.d.). In other words, those behaviours are not suggested, and they will be paid soon. To avoid this situation, financial management is needed, which is a tool to manage, plan, and organize financial activities (Juneja, n.d.).

In my opinion, this is a necessary skill for everyone who understands their budget and avoids unnecessary loaning or over-budget expense. There is the only way to get out of the “moonlight clan” and enjoy the benefit of financial growth.

## Personal Finance

Personal finance is an economic term that manages personal assets as well as saving and investing (Kenton, 2021). Five main areas would be focus on personal finance: income, spending, saving, investing, and protection (Market Business News, n.d.). Income can be considered as money earned and received. Spending can be considered as money lost in something that happened. Saving can be considered the positive gap between income and spending and save it. On the other side, economists consider it one of the spending behaviours called deferred consumption (Market Business News, n.d.). Investing can be considered as a type of income or a type of consumption with money return. However, the money return can be positive or negative, called risk (Market Business News, n.d.). Protection can be considered a saving or money pool used to guard against unpredictable events (Market Business News, n.d.).

In this project, income and spending would be focused on because both are the core of personal finance, and we have to face them daily in the income and expenditure sheet.

## Financial Accounting

Financial accounting is a behaviour that is a recording financial activities process in the financial statement (Fresh Books, n.d.).

## Financial Statement

Consider on the financial statement in this project, budget and income and expenditure statement would be included. The budget is for planning the expenditure, and it is the core part of this project. The income-expenditure statement records the money in and out day by day.

## Financial Freedom

There are famous and well-known strategy and designed for retirement, it is called Four Percent Rule. Four Percent Rule was created by historical data model. This data model is composed of over 50-year period stock and bond returns data from 1926 to 1976. A financial advisor, William Bengen, questioned whether this 4% was sufficient and had an exhaustive investigation on it (Wealth Management, n.d.). In the end, Bengen concluded that the four percent strategy could run for at least 33 years even during severe market downturns period until the retirement portfolio is exhausted.

Michael Kitces, who is an investment planner, developed a test for four percent strategy in the worst economic situations, such as 1929 and 2008 (Kagan, 2021). He pointed out that this four percent rule strategy still stays well and does not trigger a frightening scenario in the midst of a scary global financial crisis.

## Budget and its Objective

Budget is the most important element when having a personal financial accounting. What is budget? Budgeting is a process that is working on a plan to spend money or cut expenses. Moreover, the plan is called budget (My Money Coach, n.d.). Creating and using a budget is not just for those who need to closely monitor their cash flows from month to month because “money is tight.” Derek Notman, the Founder and CEO of Intrepid Wealth Partners, claims that the importance of budgeting cannot be underestimated and that everyone should do before getting into financial trouble (Ganti, 2021).

Actually, using a budget plan is not only for those whose money is tight and need to monitor it day by day, but also for those with large salaries and plenty of money in the bank. The plan is determined to do something before having enough supporting money.

However, only the guy who is disciplined adherence to budget planning can benefit from budgeting (Johnston, 2021). Any plan or objective for the future can be considered acceptable in the budget. Every money saved will feel closer and closer to the goal. More insistent planning will be forced to be implemented until the goal is reached. Following the budget plan would experience a sense of wallet control that understanding where the money goes (Cabot Financial, n.d.). Each payment process would be more comfortable and confident than without a plan. Over time, self-control may be developed; and it can help reduce the stress in life, especially if money is tight. Every income should be used carefully and consciously without any waste. Waste money means less expected results can be enjoyed as the fruit of work. Every money should represent the value it is expected. Money using reasonably, the maximized expected return would be obtained in a limited budget (Investopedia, n.d.).

This budgeting cannot be understated. Every executable plan has been worth creating and sticking tightly to; it is because the need would be not be sold as Warren Buffet said.

## Limitation on Budget

Budgeting is essential in any business, especially regarding high efficiency and effectiveness (Elmerraji, 2021). Despite the fact that a favourable result is returned in feasible plan, the budget plan is still an estimated plan, and there is a chance that something would go wrong someplace. To be honest, it only plays a reference role, it would not easily take effect due to many existing factors. These factors can be classified as internal and external factors. The internal factor would like to have an unrealistic budget plan before executing (Bell-Metereau, 2020). For instance, it would not be successful when the plan does not include any meals or too little to not enough for living. An overly restrictive plan is futile, and it is impossible to achieve anything. For an external factor, sometimes your partner, family, and friends may unintentionally sabotage your plan (Bell-Metereau, 2020). Your partner will encourage you to splurge just as you stick to the budget plan. There will bother you very much on the way of budget strategy.

As we all know, the global economic environment is different every time; and there is most familiar phenomenon, called inflation. Every price can be increased slightly daily or monthly during the inflation period. In general, when starting to plan a budget, assume that all consumption costs remain the same. If there is changed to any significant degree, the budget plan is no longer valid and supported; and a new budget plan is required (O’Hoyt, 2014).

Nevertheless, if sticking hard on the budget, it would find that there is very little flexibility (E Finance Management, n.d.). This strategy would be challenging to deal with any particular circumstances, such as illness treatment costs and loss or reduction of employment. An annoying feeling would be developed and consider it unrealistic and question it, and even give up halfway. The rule of a budget is to rigidity that water would not allow having when thirsty.

The budget is only concerned with money. There would be as numbers-driven, and everything would be counted in money first. Most of the time, it would be ignored something uncountable and important like time, health, relationship, and quality of life. Sometimes it is acceptable, but sometimes it is not.

Besides that, the budget is not worth having when it happens in an extremely low-income family (Juneja, n.d.). The planned budget would be meaningless when all income is spent on necessities. No expense would able to cut off. In this way, budget is not a solution, it can only be solved by increasing income.

## Personal Finance Limitation

There is a concern when studying overall personal finance. We would find that the financial statement records the historical income and expenditure results. Those business record does not provide enough predictive value and information for what will happen in the future (Accounting Tools, 2021). Also, the vales of assets and liabilities, such as house property and cars, may be recorded at the old balance sheet price. As a result, the market's value will change over time.

Nevertheless, the sheet is recorded at their initial cost and do not change, and the market price will not be a concern at all. Thus, the balance sheet is misleading the part of assets value based on the historical costs. Because of this, some decisions may be misjudged (Accounting Tools, 2021).

## Conclusion

This research aims to clarify the relationship between financial statements and personal finance, improvements and effectiveness. While the expense is lower than income, it means that money is saved, and the wealth is grown. In financial management, the budget plan directly and positively affects personal finances. Most of the limitation factors can be avoided or eliminated. All the elements can be broken down when testing with the daily, weekly, or monthly budget plan. Finally, all the experience is summarized and developed an own plan. All the risk and flexibilities can be managed in hand.

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