MONETARY NAVIGATOR

7151CEM – Computing Individual Research Project

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September Intake
Supervised by
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Section – A

✓	I submitted my ethics application and my application has been approved. I include my ethics certificate in the appendix as evidence.
	I submitted my ethics application and my application is currently under review.
	I have not submitted my ethics application.

Monetary Navigator P158658

Coventry University

Certificate of Ethical Approval

Applicant:	Pooja Thota
Project Title:	Monetary Navigator

This is to certify that the above named applicant has completed the Coventry University Ethical Approval process and their project has been confirmed and approved as Low Risk

Date of approval:	12 Jun 2023
Project Reference Number:	P158658

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Section - B

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1. Research Question, Problem Statement or Topic for Investigation

This paper report provides a solution to the issues faced by the small, medium-sized, and micro-enterprises (SMMEs) in India. India ended its apartheid system in 1994, allowing the country to join the global economy. Because of a lack of global competitiveness, 70-80% of start-ups fail within five years (Pickle and Abrahamson, 1990); (International Labor Organization). People were laid off, and the unemployment rate rose from 17% to 28%. The government boosted its assistance for small enterprises to foster economic growth and development to create jobs. However, studies on the performance of small enterprises show that, regardless of government assistance, most of these businesses fail due to a lack of economic management skills. To suggest appropriate training interventions needed to develop and improve such owners'/managers' economic management skills and the management of their businesses, the study reported here examined which economic management skills small business owners/managers have and which ones they lack.

A study of the literature was done on economic management techniques, training interventions, and the small business environment. For the objectives of empirical research, small business-relevant economic management skill sets were identified and listed. On the target population within the specified geographic area, an empirical study was done.

1.1 Technologies

C#, Asp .NET Core Web API, SQL and Angular

1.2 Tools

Visual Studio Code, Visual Studio 2022 and SSMS

1.3 Accounting Standards

IFRS – 15/IFRS – IAS 18, IFRS – IAS 16, IFRS 38

2. Intended User or Group of Users and Their Requirements

2.1 Intended Users or Group of Users

This report aims that small, medium – sized, and micro-enterprises (SMMEs) which are facing issues in economic management. This report helps the enterprises in generating the cashflow statements, profit and loss statements and balance sheets.

2.2 Why there is a need of Monetary Navigator Application

By using this application, small, medium-sized, and micro-enterprises (SMMEs) can enhance their financial planning processes. This application can accurately and quickly analyze massive amounts of financial data. By automating the consolidation of financial data from diverse sources, this will guarantee accurate reporting in a timely manner. This application can greatly increase productivity and efficiency by application financial procedures and automating repetitive tasks. By doing so, manual errors will be decreased, time will be saved, and finance teams will be able to concentrate on strategic projects rather than mundane administrative tasks. These reports are crucial for disseminating financial information to stakeholders, complying with legal requirements, and making internal decisions.

3. Systems Requirements, Project Deliverables and Final Project Outcome

Every industry, organization, owner of a firm, and investment is unique. They all have individual interests and place varying values on certain criteria. Therefore, it is accurate to argue that each financial model has unique characteristics from that standpoint. As a result, each model can be altered to suit the user.

But a strong financial model often includes at least the following two outputs: the financial statements and an operational cashflow forecast.

3.1 Financial Statements

Financial Statements are the project outcome screens where it will display the profit and loss of a company. The purpose of financial statements is to give information about an entity's financial status, financial performance, and cash flows so that a variety of users can utilize it to make choices about the economy.

Profit and Loss Statement / Income Statement

The income statement in the application will provides the user with insights into company's revenues and various cost categories while providing an overview of all the income and expenses that business has incurred over a given time period and determining whether the companies are profitable or not. A positive Net Result indicates that your business has generated a profit, whereas a negative Net Result indicates that you are losing money.

$$\text{Gross Margin \%} = \frac{(Total\ Revenue - Total\ Cogs) * 100}{Total\ Revenue}$$

Balance Sheet

Under IFRS, a statement of financial status with subsets of shareholders' assets, liabilities, and equity is referred to as a categorized balance sheet. This improves our understanding of the financial situation.

The balance sheet is a record of all of a company's assets (properties and resources) in comparison to its liabilities (debts and obligations) at a certain point in time (in this case, the end of each year). Assets reflect what your organization possesses, but liabilities show the responsibilities it has and how it has financed itself through debt. Equity, which reflects the sum of the funds supplied by the shareholders (paid-in capital) and the retained earnings (profit/loss the firm produces over the years), is the difference between the value of your assets and liabilities.

$$\text{assets} = \text{liabilities} + \text{equity}$$

Cash flow Statement

Under IFRS – IAS 7 the cash flow displays every line-by-line cash inflow and outflow that you have included in your financial plan, both on a monthly and annual basis. Consider cash inflows from revenues or incoming capital as well as cash outflows for paying employees, suppliers, taxes, or loan interest.

The cash flow overview is crucial for your business's cash flow management. To compare your predicted and realized cash flows, you can export your financial model from this application dashboard and use Excel's monthly cash flow overview.

3.2 Operational Cashflow Overview

The focus of operating cash flows is on cash inflows and outflows associated with a company's core business operations, including the sale and purchase of inventories, the provision of services, and the payment of salaries. Borrowing, purchasing capital goods, and paying dividends are examples of investing and financing transactions that are not included in the operating cash flows section and are instead reported separately. A company's statement of cash flows, which is divided into cash flows from operations, investing, and financing, can be used to find operating cash flow.

This application will provide a feature to download the financial statements i.e., income statement, balance statement and cash flow statement in an excel format.

4. Primary Research Plan

The application will display the login page where user need to give the login details and if the user is registered then the user can be able to access the application. If the user doesn't have access, then it will redirect to the login page. Once the user logged in to the application, the user has to fill the company details. The application consists of 4 financial input screens i.e., revenue, cogs, assets and financing. Based on the input given by the user in these screens, the application will generate the output in the Financial statements screen when the user clicks on Income Statement, Balance Sheet and Cash Flow Statement.

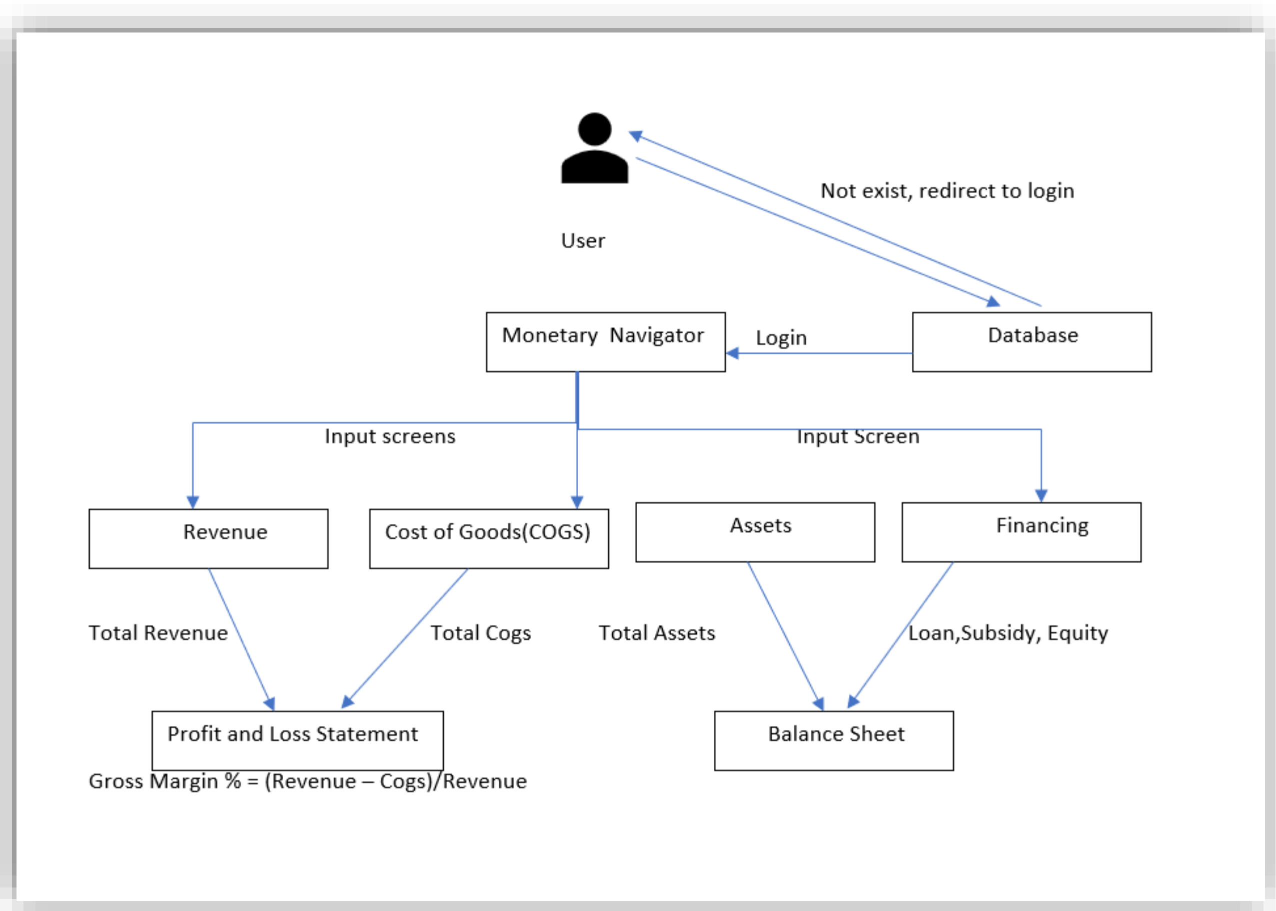

Figure 1: Application flow for the Monetary Navigator

4.1 Financial Modelling Approach: Top – Down Forecasting

When a company moves from a macro/outside-in perspective to a micro view using the top-down method. Usually, industry projections are used as a starting point before being reduced to targets that are appropriate for your business.

The top-down approach aids in the definition of a prediction based on the market share you hope to gain in a fair amount of time. The TAM SAM SOM model can be used to perform top-down forecasting.

The size of a company's worldwide total market is known as the Total Addressable Market (TAM). The portion of the market that is within the company's reach given company's geographic reach and the market that is addressed by the goods/service is known as the Serviceable Available Market (SAM). The portion of the serviceable achievable market (SAM) that, after taking competition, the company's capacity, and sales capabilities into account.

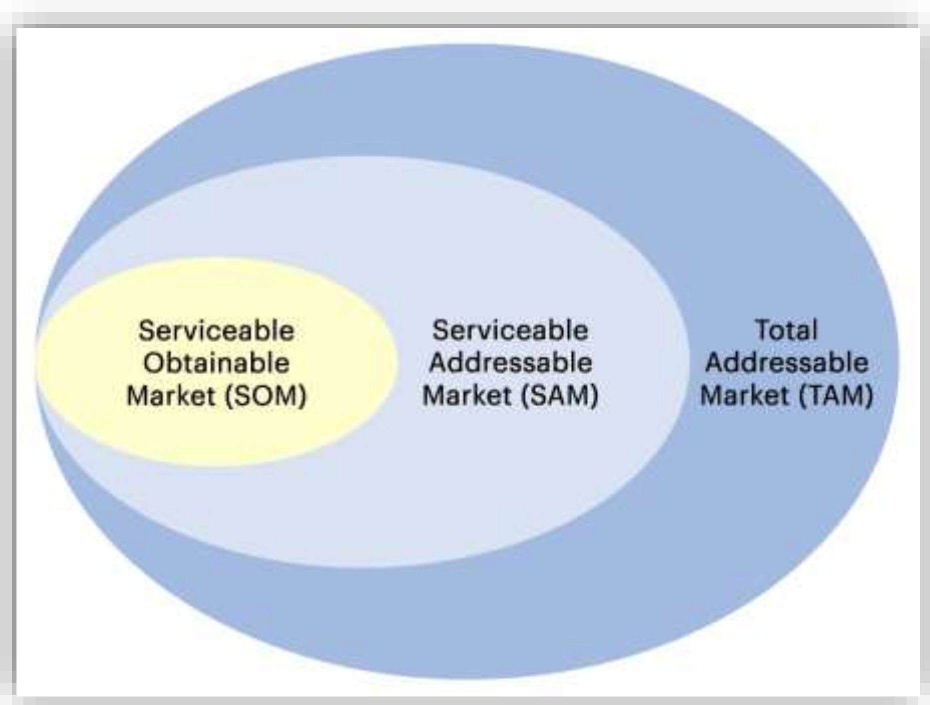

Figure 2: Top-Down Approach of the project

4.2 Inputs to the Financial Model

4.2.1 Revenue

According to International Financial Reporting Standards (IFRS), revenue is the gross inflow of economic advantages resulting from an entity's regular operations when those inflows enhance equity, excluding equity participant payments. Comprehensive guidance on the recognition and measurement of revenue is provided by IFRS 15, Revenue from Contracts with Customers.

The transfer of control was emphasized as the primary determining factor for revenue recognition in IFRS 15, which introduced a five-step approach for doing so.

Total Revenue = Price * Quantity Sold

To calculate the Revenue, I will be using the IFRS – 15/Revenue Recognition/IFRS – IAS 18 - Revenue accounting standard.

4.2.2 Cost of Goods Sold (COGS)

The cost of manufacturing the commodities that a business sells is what is referred to as the cost of goods sold (COGS). For tangible items, it typically comprises the value of the current inventory as well as any associated materials and direct labor expenditures incurred over the course of the year. The price of packing and shipping the items to their final location could also be included.

COGS= (beginning inventory+ purchases) – ending inventory

There are 3 ways to calculate the inventory:

- First in, first out
- Last on, last out
- Average Cost Method

According to FIFO accounting, a business will sell its older products before its most recent ones. A corporation is presumed to be selling its more cost-effective products before its more expensive ones because prices have a tendency to climb over time. Contrarily, LIFO accounting makes the incorrect assumption.

By valuing inventory according to the average price of all items currently in stock, the average cost technique seeks to avoid the impact of inflation. Additionally, this offers the benefit of minimizing the impact of substantial ad hoc charges.

4.2.3 Assets

Assets are the purchases that the business possesses that don't instantly lose value after being used; they are used for a longer period of time.

For instance, if a company uses laptop more than once, they might be able to use it for three years (during which time the company would refer to that period as the asset's "useful life").

The company will employ electronics, machinery, structures, and other assets for many years to come. To calculate the Assets, I will be using IFRS – IAS 16 accounting standard.

Building Depreciation = $\frac{Total\ Building\ Cost - (Residual\ value\ per\ unit * No.of\ Units)}{Useful\ Lifetime\ in\ Months}$

Building Carrying Amount = $Total\ Building\ Cost\ +\ Building\ Depreciation$

To calculate the Assets, I will be using IFRS – IAS 16 accounting standard and IFRS - 38

4.2.3 Financing

A financing screen in the application would add funding sources like equity, loans, or subsidies of a company. The major objective of this would be to examine the effects on the company's financing requirement of adding various forms of funding in various years of the model.

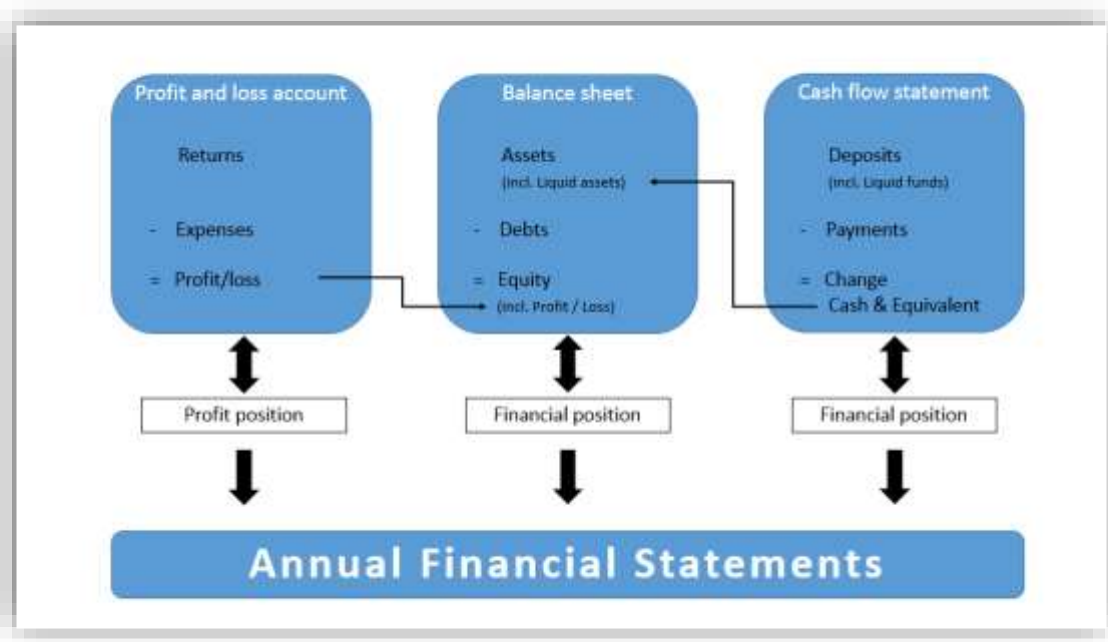

Figure 3: Annual Financial Statement

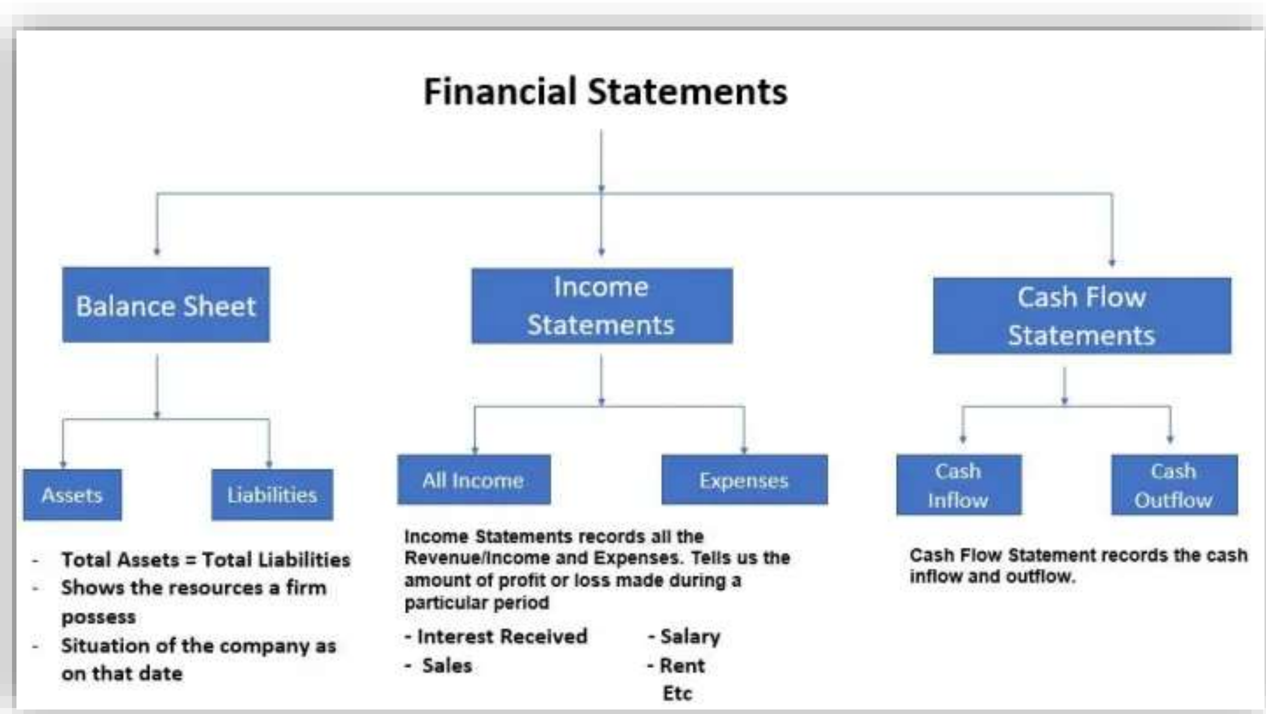

Figure 4: Flow that shows the Financial Statements

5. Gantt Chart

TASK	May	June	July	August
Planning	60%	30%	100%	100%
Research	35%	35%	30%	100%
Design	20%	50%	30%	100%
Implementation	10%	50%	40%	100%
Follow up				100%

6. Initial/Mini Literature Review

Financial management must incorporate all of the decisions made inside an organization while taking financial priorities and constraints into account. Financial management is essential for the success of every business, no matter how big or little. If good financial controls are to be implemented in a corporation, accurate financial records must be kept consistently as per the report published by (Pickle and Abrahamson, 1990). Because owners and managers of small firms frequently find it difficult to identify their roles in the sustainability and development of their companies, the financial management part of small businesses is frequently viewed as the most ignored field.

As per the report published by (1994, Peters and Waterman) key position holders, executives, and managers of small enterprises are advised by Waterman (1994) to "use this sort of information as a strategic management resource and not only as a historical resource." In relation to developing strategies in SMEs, a foundational study (Potts, 1992) on financial control and practices of funds suggests that the "really and most unexpected variations between effective and abandoned SMEs are the uses that accounting expertise can provide.

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