UNIVERSITI TEKNOLOGI MARA

AUTOMATED FINANCIAL PLANNER MOBILE APPLICATION : IMAGE ANALYSIS CAPABILITIES

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CHAPTER 1

INTRODUCTION

1.1 Introduction

In the age of tech, Optical Character Recognition (OCR) and smart algorithms is a vital space for today's financial management. Utilising these synergies, the presented research aims to design a mobile automated financial planner. By leveraging innovative technology, the software seeks to provide users with an effective tool for simple financial planning, filling the urgent need for responsible management and financial literacy in contemporary society.

As mobile applications become increasingly integrated into the fabric of daily life, the demand for comprehensive financial planning solutions continues to grow. By utilizing OCR functionalities to automate the collection and processing of financial information from receipts, this initiative fills a major gap in the market. Existing automated systems often prove insufficient in utilizing modern technology efficiently to facilitate financial management, creating unnecessary inefficiencies for users.

This endeavour aims to standardise investing by developing a solution that utilizes OCR and Naive Bayes to fill the void in automated financial planning and makes these unstructured financial insights from receipts actionable.

1.2 Current Process

Prior to the creation of the suggested application, manual methods were frequently used for personal financial management. According to the research currently in publication and accepted financial practices, people usually kept track of their costs by gathering paper receipts or keeping digital receipts on various platforms, including emails and mobile devices (Puschmann, 2017). Spreadsheets or simple budgeting tools were then used to manually evaluate and record these receipts, requiring users to manually enter transaction details such dates, amounts, and spending categories (Damerji & Salimi, 2021).

The method was difficult and prone to human mistake because expense categorization—which included grouping transactions into categories like grocery, utilities, or dining—was done by hand. According to earlier research, manual data input and classification frequently lead to errors and inconsistencies in financial records, which can have a detrimental impact on financial analysis and budgeting (Damerji & Salimi, 2021). Furthermore, users found it challenging to track expenditure trends in real time due to the delayed recording of transaction data, which hindered their capacity to make prompt and well-informed financial decisions (Puschmann, 2017).