I. INTRODUCTION

1.1. Background

Diabetes or diabetes mellitus is a major and growing health concern in Indonesia, with its prevalence rising sharply in recent years. According to projections, the prevalence of diabetes in Indonesia increased from 9.19% in 2020 (equivalent to 18.69 million cases) and is expected to reach 16.09% by 2045 (about 40.7 million cases), representing a 75% increase over 25 years. Indonesia now ranks fifth globally in the number of adults (aged 20–79) with diabetes, with 20.4 million cases in 2024 and a projected 28.6 million by 2050. Diabetes is particularly dangerous because it is the third highest cause of death in Indonesia in 2019, and is associated with severe complications such as stroke, ischemic heart disease, and chronic kidney disease. For example, deaths due to diabetes are projected to more than double from 433,752 in 2020 to 944,468 in 2045 (IDF., 2025; Wahidin et al., 2024; Tanoey & Becher., 2021).

The risk of developing diabetes increases significantly with age, especially for individuals over 40. Data from Indonesian cohort studies show that the prevalence of diabetes rises markedly in older age groups, and the majority of diabetes cases are diagnosed after age 40. This age-related increase is attributed to factors such as declining insulin sensitivity, higher rates of obesity, and cumulative exposure to lifestyle risk factors. In addition, urbanization, changes in diet, and reduced physical activity further elevate the risk among older adults. These trends highlight the urgent need for effective prevention and control programs, particularly targeting adults over 40, to curb the growing burden of diabetes and its life-threatening complications in Indonesia (Wahidin et al., 2024; Tanoey & Becher., 2021).

Diabetes is one of the conditions that has benefited most from the considerable improvements in chronic condition treatment brought about by the growth of technology in

healthcare. Continuous Glucose Monitors (CGMs), are one of the improvements as mentioned earlier. These devices provide real-time, continuous glucose level monitoring throughout the day, and have become an essential tool for people with diabetes. These devices provide a more accurate way to control blood sugar than more conventional techniques like finger-prick testing by enabling users to continuously monitor changes in glucose levels and modify their behavior accordingly. Despite their obvious health advantages, CGMs are not widely used, and many diabetics do not fully utilize this technology. This study aims to examine the variables that affect consumers' decisions to buy CGMs, with a particular emphasis on perceived health advantages, cost sensitivity, and usability (Sugandh et al., 2023; Yu et al., 2024).

Perceived health advantages are one of the most crucial considerations when consumers are deciding to purchase CGMs. The capability of CGMs to provide continuous, reliable, and regular glucose monitoring is a key factor for a lot of people as it would assist them to manage diabetes, and it is what makes CGMs valuable to them. Studies have indicated that individuals with diabetes who utilize continuous glucose monitoring (CGM) have better overall disease management, fewer hypoglycemic episodes, and better glucose control. However, how much these advantages are acknowledged and valued would be different from person to person, in which some consumers might still doubt the efficacy of CGMs, and others might see them as vital instruments for enhancing health. Thus, customers' propensity to invest in and use CGMs is highly determined by their perspective on CGMs' benefits and advantages (Oganesova et al., 2024; Cappon et al., 2019). Cost sensitivity is another crucial element that affects judgments about what to buy. CGMs are usually relatively pricey, with prices ranging from several hundred to a few thousand dollars, depending on the model and associated accessories. Although some insurance plans cover the costs of CGMs, many consumers still face out-of-pocket expenses, which can be a significant

barrier to adoption. Cost sensitivity is particularly relevant in healthcare markets where consumers are burdened by high medical expenses and limited financial resources. The price point of CGMs, combined with the lack of widespread insurance coverage, presents a substantial challenge to increasing consumer uptake. Consumers' willingness to pay for CGMs will depend on how they perceive the benefits of the device relative to its costs and whether they believe the long-term health advantages outweigh the financial burden (Al-Mamun et al., 2014).

CGMs ease of use may also be a determining factor in consumers' purchasing decision-making. A product's simplicity and convenience to use while maintaining its function and advantages are crucial factors that often lead to a consumer's decision to purchase a product. CGMs, which in the past were known to be impractical, therefore need to adapt, in which they could make CGMs simple to wear, have user-friendly software, and give the user a pleasant integration of CGM into their daily schedule. This is especially important for diabetes patients who often have a hectic lifestyle, so any extra hassle or pain may deter them from using CGMs (Mansour et al.,2024). Factors such as perceived health advantages, cost sensitivity, and convenience of usage all influenced a consumer's purchasing decision for CGMs.

With the foregoing findings, this study aims to investigate how factors such as perceived health advantages, cost sensitivity, and convenience of usage all influence a consumer's purchasing decision for CGMs through surveys and data analysis. Likewise, this study dives into understanding the influence of health technology adoption in emerging markets like Indonesia, where issues such as affordability and accessibility are often seen. Also, understanding these factors will help businesses, healthcare providers, and even policymakers tailor strategies to improve CGM accessibility, enhance consumer education,

and support better diabetes management in urban areas like Jakarta and Bandung. Lastly, this paper aims to contribute to the limited literature regarding this particular study.

1.2. Research Objectives

1. Evaluate the influence of perceived health benefits on consumer decision-making for CGMs
2. Assess cost sensitivity in consumer purchasing decisions for CGMs
3. Determine the role of ease of use in the adoption of CGMs

1.3. Research Questions

1. How does perceived health benefits influence consumer decision-making for CGMs
2. To what extent does cost sensitivity affect consumer purchasing decisions for CGMs
3. What is the role of ease of use in the adoption of CGMs
4. How can consumers be segmented based on health priorities, cost sensitivity, and usability preferences

1.4. Hypothesis

H_1: There is a positive and significant effect of perceived health benefits on the purchasing decision of continuous glucose monitors.

H_2: There is a positive and significant effect of cost sensitivity on the purchasing decision of continuous glucose monitors.

H_3: There is a positive and significant effect of ease of use on the purchasing decision of continuous glucose monitors.

H4: There is a simultaneous positive and significant effect of perceived health benefits, cost sensitivity, and ease of use on the purchasing decisions continuous glucose monitors