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Editors

Asmadi Mohammed Ghazali
Abd Latif Abdul Rahman



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Sec-CompFY: SECURE COMPARTMENT FOR YOU

Muhammad Azmi¹, Muhammad Nu'man², Danial Hafifi³ & Hassnah Wee (Assoc Prof Dr)⁴

^{1,2,3,4} Faculty of Hotel & Tourism Management, UiTM Puncak Alam, Selangor

azmi306001@gmail.com, numanyusuf8171@gmail.com, hafifidaniel@gmail.com,
hassnah739@uitm.edu.my

Abstract

National Transformation 2050's strategic objective is to build an educated and aware society in the future. In addition, the United Nations' 17 Sustainable Development Goals are an urgent call to action for developing and developed countries to work together in a global partnership. In addition to combating climate change and preserving land, the goals emphasise minimising gaps in innovation, security, and the economy. Therefore, the nation's job to promote specific behaviours, cognitive processes, and attitudes will boost the openness and knowledge of the next generation. Thus, "Sec-CompFY: Secure Compartment For You" will be developed to keep your belongings while spending time in the library safely. Using today's latest technology, precious things will be stored safely and without concern, giving library patrons a novel experience. Sec-CompFY is a security initiative that employs the most recent library-compatible technology and intends to comfort users who are comfortable reading or studying alone in libraries. The primary criteria are product quality, energy efficiency, product planning and design, materials, and resources. A keyless system and a simple design is a novel approach to meeting Sec-CompFY's requirements.

Keywords

National Transformation 2050; Sustainable Development Goals; Sec-CompFY; Innovation; Library

Product Description

This innovation project presents the user-friendly "Sec-CompFY: Secure Compartment For You". Sec-CompFY is a compartment for the use of library patrons. Sec-CompFY employs the most recent keyless lock system technology using RFID. With Sec-CompFY, you do not have to worry about table clutter because you can store anything in Sec-CompFY. Sec-CompFY mainly concerns library patrons who come alone to study or read books. If you need to use the restroom, you must be concerned about leaving your



belongings on the table, exceptionally costly items such as wallets and laptops. You lack a companion to watch over your belongings, so that Sec-CompFY will solve this problem. Sec-CompFY is manufactured from chipboard, an eco-friendly material that saves energy resources. Chipboard is a form of a board composed of wood chips. The diagram shows the picture of the completed Sec-CompFY prototype when in use in the library. The left picture shows Sec-CompFY when it closed. Meanwhile, the right picture illustrates Sec-CompFY when opened.

Novelty and Uniqueness

In recent years, youth services in public libraries have undergone a "paradigm shift" from being information repositories to supporting "youth engagement, youth voice, and youth leadership" in all service areas (Braun et al., 2018). However, studying in the library alone makes it extremely difficult for them to move around without worrying about costly personal belongings such as computers, which partially inhibits their ability to walk around the library to find study materials or access the restroom or prayer hall. Thus, the Sec-CompFY is a personal safety compartment for single travellers to protect their valuables from theft. Sec-CompFY functions like a locker but in a small compartment placed on the side of the table, conserving a significant amount of space in the library. This novel invention encourages people to visit the library without concern. Utilizing an RFID chip, Sec-CompFY may safeguard their valuables with a smart lock. In addition, Sec-CompFY has been manufactured with eco-friendly materials to encourage a greener planet. In addition to securing things, the Sec-CompFY has been developed to conserve space for more comfortable learning, among other functions. This Sec-CompFY innovation contributes to some of the 17 Sustainable Development Goals (SDGs), including SDG 9 (industry, innovation, and infrastructure); SDG 11 (sustainable cities and communities); SDG 12 (responsible consumption and production); and SDG 15 (quality education) (life on land). Therefore, the novel product is advantageous to library patrons and is innovative.

Sec-CompFY is a one-of-a-kind innovation with which we intend to develop a secure and environmentally friendly solution. We employ recycled materials, such as pressed wood, for our main body, which is fairly robust and sturdy, and we minimise waste. The hope is that this method will educate users about the benefits of using recycled products. Consequently, this invention's primary objective is to construct a little compartment coupled with a future locking mechanism so that individuals can safely and securely store their possessions when they are not at their table. In addition, the compact size may accommodate a 15-inch laptop or tablet together with a few books or other items, such as a phone or wallet. In addition, the lock we employ is an RFID smart lock with an RFID chip, one of the ways we have made our product more futuristic than the traditional lock and key. This design product is primarily self-sufficient, requiring no additional power source. In addition, the library management can be easily attached or detached from the table's side. Moreover, this design is intended to increase table space so the student can study more comfortably. Additionally, we installed two hooks on the side of the compartment so guests could hang their bags rather than place them on the table.

Benefit to Mankind

Sec-CompFY is the name of the innovation that has been designed for use by all library patrons. According to our observations, many library patrons bring essential items, such as laptops, tablets, smartphones, and other devices. During the development of Sec-CompFY, the safety and security of the user will certainly receive more attention. Sec-CompFY also heavily emphasises its primary component, derived from a recycled wood press. It can promote sustainable development and environmentally friendly technology that improves operational effectiveness while reducing costs, energy consumption, waste, or negative environmental effects. In addition to these characteristics, Sec-CompFY will provide consumers with a cutting-edge radio frequency identification (RFID) locking mechanism. Users can expect complete protection from this locking mechanism, which can only break with the proper key tags. In contrast to other conventional access control technologies, such as swipe cards, RFID locking systems are contactless, meaning that the credential does not need to touch the reader to function. Sec-CompFY is a future technology that contributes to a sustainable and safe environment. Using materials that can be recycled, new technologies will help keep the world clean, green, and free of the trash.

Potential Commercialization

According to Hori (2022), as the New Straits Times reported, sustainability has become the ultimate indication of a company's success rather than merely a business obligation. The Sec-CompFY uses wood-pressed materials and benefits the neighbourhood, economy, and ecology. Eco-friendly products, sometimes known as "green technology," are a global solution for communities, households, and societies. Green technology includes limiting exposure to chemicals, conserving water, using safer

materials first, and decreasing carbon emissions, energy consumption, and waste through sustainable design and construction. Users may need to recognise the practical benefits. On the other hand, information chains facilitate the flow of ideas that contribute to creating new products. For instance, plant scientists, producers, growers, chemical engineers, food companies, and food technology specialists may have contributed to the development of food qualities. When new ways for reducing fruit waste are created, they frequently affect the promotion of specific goods. Introducing a new product will likely affect various factors along the value chain, including inputs, methods, packaging, and marketing. The outcomes of the Sec-CompFY contribute to mitigating the effects of climate change and the global expansion of industries associated with this issue. The Sec-CompFY can be developed into a company since it will be required to construct places that support the health and well-being of people, the economy, and the environment to foster sustainable development and a higher standard of living. Since there are more than 2 million libraries in 99 countries (IFLA, 2017), there is a big market for this new product that would help their customers.