

E-Ride

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Abstract: Travel essentials are the most important things to bring when travelling. When we talk about packing travel essentials, all we need is a bag. It can be a backpack, handbag, duffel bags, laptop bags and more. Most of the bags can be a bag of burden as we need to hand carry it or carry it on our back. Hence, an E-ride exist. The primary objective of E-ride is to help elderly and disabled people to travel freely. The E-ride is made of sustainable materials. The frame and handlebars are made of aluminum alloys while the tires are made of bio-based rubber. E-ride is disabled friendly, lightweight, waterproof, and weatherproof. The E-ride had commercialization potential because it is affordable and suitable for people of all ages. Our product meets the requirement of Sustainable Development Goal No. 9, which focuses on the good health and wellbeing of the user.

Keywords: Innovation; Touristic Product; Scooter; Sustainable



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1. INTRODUCTION

In the last few decades, tourism has become one of the industries with the fastest growth. According to Tourism Malaysia Data, tourist arrivals in Malaysia are 134,728 in the year of 2021. Destination management has also scarcely changed in the last ten years to properly adapt to environmental and competitive structures and procedures. The demands of the market can no longer be met by existing destination strategies (Weiermair 1998). Particularly small and dispersed alpine tourism businesses must contend with rising competitiveness and dwindling visitor numbers (Smeral 2003; Bartaletti 1998) Hence, product innovation is the development and subsequent introduction of a new or enhanced version of an existing good or service. The definition makes a clear distinction between innovation and modest alterations in the composition and/or delivery of products, such as product line extensions, the addition of service components, or product differentiation. Successful innovation must raise the value of the product or tourism experience in order to be profitable for the tourism company in a market that is competitive. Successful innovation must raise value by raising quality or by lowering price (cost), as value is defined as the customers' perceived quality divided by the price (cost) of this quality (Heskett, 1986). The primary factors driving the global luggage industry are rising urbanization and shifting lifestyles. Increased potential for luggage sales among high-net-worth individuals, for whom safety is a top priority, are being brought about by technological improvements. The demand for luggage is also being driven by an increase in travel and tours, increased business activities, and an increase in the number of educational courses. The development of new knowledge, tools, products, services, and organizational structures was facilitated by the accessibility of new technology. This is particularly true over the past two decades, during which technological innovation played a critical role. Technology has given rise to a new industry in the tourism sector dubbed e-tourism, which today dominates e-commerce. Both the supply and the

demands and wishes of the customer have changed. The population pyramid, individualization, and rising quality demands are examples of secular developments that have altered leisure and tourism behavior (Poon, 1993; Horx, 2002; Foot, 2002; Bieger/Laesser, 2002; Weiermair, 2003). Flexible work schedules, increased wages, more free time, and the changing value of vacations (now considered as a part of life) all contributed to the emergence of new lifestyles.

2. PROBLEM STATEMENT

Seniors and those with disabilities face tremendous barriers when trying to travel in comfort and safety. When traveling, these people frequently face obstacles that limit their freedom of movement and independence. It is crucial to address these difficulties and develop accessible solutions to make traveling more convenient and pleasurable for this group. When utilizing public transportation, it has been observed that people who have specific mobility needs face a variety of difficulties, as stated in an independent study (MJ Field, 2007). These difficulties include restrictions imposed by the existing infrastructure, inadequate assistance provisions, and a lack of awareness on the part of those who provide transportation services. Next, these obstacles have a significant impact on their capacity to travel independently and contribute to the overall difficulty that elderly and disabled individuals experience during their travel engagements. In addition, the transportation needs of the elderly are not uniform and their needs are diverse and susceptible to many influencing factors (Chu & Loo, 2016). Furthermore, travel accessories for elderly and disabled people include luggage with a scooter, speaker, GPS tracker, phone holder, detachable luggage, cable port and braille tiles. E-Ride combines storage, mobility assistance, entertainment, tracking, and adaptability to give elderly and disabled travelers more independence. E-Ride aims to enhance their travel experiences, promote independence, and allow them to participate in more travel activities.

3. PRODUCT DESIGN

3.1 Figures

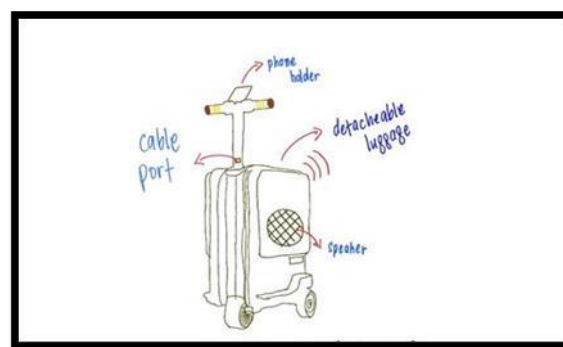


Figure 1.1

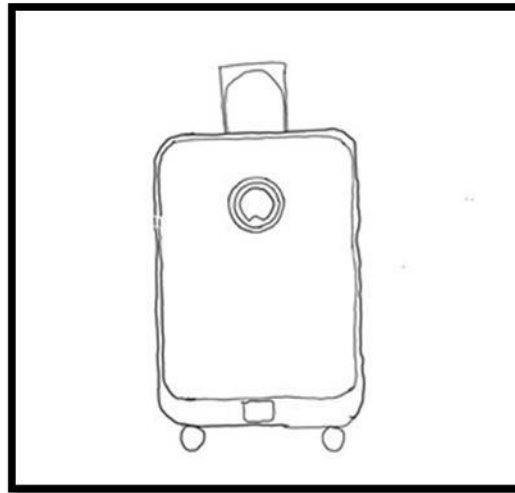


Figure 1.2

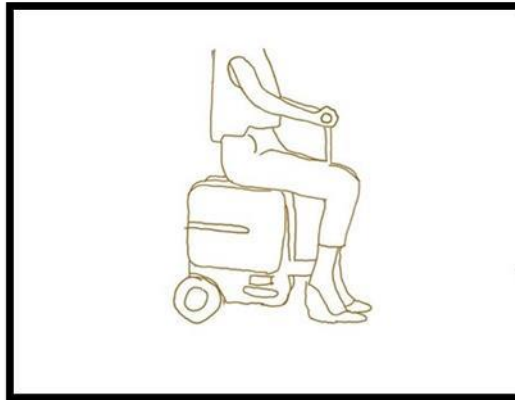


Figure 1.3

3.2 Product Uniqueness

For elderly and disabled travelers, the luggage's scooter, speaker, GPS tracker, phone holder, and detachable features are unique. This travel accessory has all these features, unlike others. A built-in scooter improves public mobility and independence. A speaker alerts disabled travelers, improving travel. The GPS trackers prevent lost luggage. This feature connects and simplifies device use. Separating and carrying smaller sections makes it easier to handle, especially for those with limited strength or mobility. In addition, this luggage also has braille tiles that are very useful to blind people as that is how they read so by the existence of braille tiles it will be helpful for them to recognize their luggage. It is almost impossible for blind people to recognize their luggage if they are using the luggage in the market.

3.3 Product Usefulness

E-ride enhance travel, particularly for the elderly and the disabled. The integrated scooter enhances public mobility and autonomy. This facilitates their exploration and travel enjoyment. The GPS tracker on the luggage enables users to keep track of their belongings. This alleviates concerns

regarding lost or stolen luggage. The speaker function keeps travelers with disabilities informed and ensures inclusive travel. The phone holder secures smartphones, allowing travelers to remain connected, utilize navigation applications, and enjoy entertainment. This improves communication and amusement. E-ride enhance mobility, safety, security, communication, amusement, accessibility, and maneuverability. These features make travel more enjoyable and empowering for the elderly and disabled.

4. RESULTS AND FINDINGS OF THE FEASIBILITY SURVEY

A feasibility study was conducted to obtain feedback from prospective users. A Google form questionnaire served as the primary distribution channel for 100 respondents. According to Section A's demographic results, most respondents were female (54.5 %) and most of them were aged 43 and above (43.6 %). The respondents are mostly Malay (73.3 %) and many of them are married (58.4 %). The level of education is mostly degree student (45.5 %) and mostly the respondents are employed (52.2%). Section B measures the respondent agreement. The result also shows that most of the respondents wish to have a scooter to ride during travel (81.2%). According to the survey, the respondents prefer to have a rideable scooter that has luggage that can be attached or detached (85.1%). They also think it is necessary to take the E-Ride everywhere (91.1%). Next, they prefer to have the E-Ride than wait for buggy during travel (63.9%). The majority of respondents said it's easier to travel by E-ride than carry the luggage itself (56.6%). However, the respondents think an E-ride takes more space in the vehicle and public transport seat (63.9%).

Section C measures the usability of E-Ride. The majority of the respondents (46.4%) agree that E-Ride is ideal for travel and can take E-Ride everywhere because it is lightweight (35.7%). Next, many respondents strongly agree (33.3%) that E-Ride can ensure the safety and security of the elderly and people with disabilities. Lastly, the respondents agreed that E-Ride will enhance the tourist experience when visiting a tourist attraction (47.6%).

For the last Section D, measures the product features of E-Ride. The respondents like the idea of how the E-Ride comes with attachable or detached luggage (58.3%). In addition, the respondent strongly agrees that the product is targeting more on the disabled and the elderly (52.4%). Also, the respondent agrees with the idea of having a built-in navigation tracking system on the E-Ride is very useful for the disabled and elderly people (48.8%). Lastly, most of the respondents agreed with the idea of sensor on the E-Ride to avoid any injuries (53.6%) and E-Ride has a cable port as well as the phone holder (53.6%).

5. CONCLUSIONS

To conclude, the innovative product of E-Ride will be beneficial for everyone in the future. Adults between the ages of 25 and 60 make up the rideable luggage market, while disabled people make up most of its intended users. Disabled people's needs are met by the rideable luggage's qualities, which include stability and simple controllability. It appeals to busy professionals who need a practical way to move their possessions because they are always on the go. Therefore, there is potential for consumers in the market for 'E-Ride,' which is an excellent product to be introduced to the market for the consumer or tourist so that they can travel freely.

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