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Wayfinding Signage Criteria and Ineffectiveness Factors towards Navigating in Kuala Lumpur International Airport (KLIA2)

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ABSTRACT

Wayfinding signage is a system that channels information about directions from one area to other locations. Each wayfinding signage has its own criteria to ensure visitors easily understand the messages and follow the navigation. The ineffectiveness of a wayfinding signage system in conveying information has a negative impact on visitors. This review of the literature investigates the important factors that contribute to the failure of wayfinding signage in conveying direction. This includes elements and principle of design (e.g., information, language, fonts, colour, symbol, and sizes). Although the design of the wayfinding signage looks the same, it differs by place. This is when the use of language, terms and information at the airport is not applicable at other places (e.g., airport use term of departure, arrivals, international, domestics, transit). The visitors who came to the airport also have different backgrounds and purpose compared to other places. While there are many guidelines to improve navigation system at airport, many are not investigating the flow of designing the wayfinding signage. Effective wayfinding signage is one that can convey clear information and is able to navigate visitors to the destination in an accurate time.

Keywords: Criteria; Signage; Wayfinding; Wayfinding Signage

1 INTRODUCTION

According to some past studies the definition of wayfinding on average has the same meaning. Chris Calori and David Vanden-Eynden (2015) said, wayfinding is a process that requires the ability of vision and mindfulness of an area for the purpose of navigation. Ardi et al. (2019) defining wayfinding is the process of traveling from one location to another regardless of whether it is a new or routine process. Wayfinding is a routine for most people nowadays that in order to complete the wayfinding routine, they are required to do activities such as navigating, tracking and location positioning (Raubal & Egenhofer, 1998; Yeh et al., 2019). It is parallel towards the human behaviour that often to travel. Wayfinding activities need a system that can navigate people to the destination. Usually, signage is one of the systems used to conveying information regarding wayfinding and its commonly called wayfinding signage. Wayfinding signage needed in many movements involving public and private transportation, pedestrian and some other country provided wayfinding signage to animals.

1.1   Wayfinding Signage at Airport

Wayfinding signage normally known as static or physical signage, and it is a bit outdated compared to digital wayfinding signage. However, this physical signage relevant especially for wayfinding in the building. Building like an airport have huge space and complex floorplan usually have their own wayfinding signage design in order to navigate visitors. Failure of the signage design in conveying information will course problems to travellers. According to Lynch (1960) people will get confused and lost while trying to reach their destinations, but they would eventually end up on the right path. Lynch also quoted that "where there is a will there is a way". Ardi et al. (2019) have mentioned that one of the factors that influence the ineffectiveness of wayfinding signage is the inability of visitors from various backgrounds. This is the other factor that will not be discus in this study. According to Jafari (2014), visitors face challenges mentally and physically when navigating themselves towards their destination at the airport. Chris Calori and David Vanden-Eynden (2015) also stated that although the signage has been carefully designed, it has not been able to solve the problem of navigation completely when visitors are in a complex area. This is mentioned that wayfinding system in airport is not an easy proses to develop and need more works to reduce navigating problems among visitors. Airport is place where people come and go. There is place for board a flight and get off the plane. Airport usually have a big space and complex floor plan. Full of shops and restaurants, and many levels to be known. This is because the important of wayfinding signage to be design effectively and easy to be understand by visitors. According to Symonds (2017) signage at airport consists of several types such as directional signs, identification signs, informational sings, regulatory signs and commercial signs.

1.2   Criteria of Wayfinding Signage

The criteria for wayfinding signage are the elements found in the signage. These elements or criteria that determine the effectiveness of a signage. Each criterion displayed must be clear and meet the objectives of the signage. According to Chris Calori and David Vanden-Eynden (2015), signage aims to convey information about the environment to users through a graphic display on a physical object or hardware. This study will be based on the model produced by Chris Calori and David Vanden-Eynden (2015) which is Signage Pyramid. It helps to manage the workflow with a full systematic process and strategy, especially in the face of complex problems in producing wayfinding signage. The Signage Pyramid model includes three fractions that complement the wayfinding signage.

Figure 1 Three components in Signage Pyramid Model (Source: Chris and Eynden)

1.2.1 Information Content System

According to Jeffrey (2017) all the authors have the same opinion that the information available on wayfinding signage is the key factor driving its effectiveness. This is because the information content of this system could affect the graphic and the hardware system. It is best that this information content system should be obtained in detail first. The crucial things that need to be emphasized in the title of this information content system are information or messages displayed, the language used, location and information, and the continuity of information or messages in one location to the next location. (See figure 2 by Chris and Eynden)
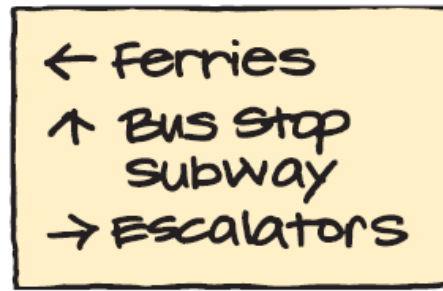
Figure 2 The Information Content System consist of sign messages, sign locations and the interrelationships
(Source: Chris and Eynden)

1.2.2 Graphic System

This graphic system is a mover or translator of information content system in a visual form. It is a two-dimensional element consisting of typography, symbols, arrows, and colours that are applied to further emphasize the conveyed messages (Chris Calori & David Vanden-Eynden, 2015). She added that the elements must be laid out to produce a layout that still maintains the priority of the information and creates the identity of the signage itself. Next, the importance of this graphic is adapted to the signage in order to facilitate user's acceptance. According to Symonds (2017) wayfinding signage in airport should designed and presented in family group of signage where it is in the seamless character of fonts, symbols, colour, arrows and layout. *(See figure 3 by Chris and Eynden)*

Figure 3 The Graphic System presenting the information content in two-dimensional graphic elements and their arrangement in layout (Source: Chris and Eynden)

1.2.3 Hardware System

This is the third part of the Signage Pyramid model where it is a three -dimensional physical sign that carries the content information in a graphic form. The size and shape are also greatly influenced by the density of the graphic system. After all the information and graphics system have been loaded, the hardware of this system must be installed or attached within the building (i.e., hanging signage, wall-mounted signage, and standing signage). According to Chris Calori and David Vanden-Eynden (2015) to attract the attention of users, the condition of the signage must be attractive depending on the materials, lighting and coating used. It must also have an identity, similarity, and likeness of one group to another signage as well as the environment. This is called criteria of the wayfinding signage. The criteria must be design carefully to ensure the effectiveness of the function of wayfinding signage. The weak criteria are the cause of the failure of a wayfinding signage system.

Figure 4 The Hardware System consists of three-dimensional physical object including shapes, materials, installation type and its present the graphics and information systems (Source: Chris and Eynden)

1.3 Methodology

This research is preliminary study that is under investigation. The result will be complete when the research go through the data collection proses. In this chapter, Kuala Lumpur International Airport (KLIA2) will be chosen as the case study. This is because KLIA2 has a big and complicated space and critical issue of wayfinding signage. This study will be used mix method approach to get the very best result. In order to get more information, primary data from journals, books, documents collected. Sequential explanatory model from Creswell will be guideline to the study. In sequential explanatory model, quantitative approach is the dominant method of data collection followed by the qualitative method to explain and concrete the quantitative result. In this study, questionnaire will be spread to the four hundred airport user to determine the ineffective of wayfinding signage at KLIA2 in conveying message. This is based on Krejcie and Morgan table of sample size where the population at airport is in high number of visitors. Observation will be followed once the result of questionnaire analysed. Analyse photo as an explanatory to the quantitative result will complete the mix method approach.

1.4 Results and discussion

Visitors face challenges mentally and physically when navigating themselves towards their destination at the airport. According to Noriman and Ismail (2018), if the wayfinding signage does not have a strategy in delivering the massage, it will cause various problems, especially for visitors who are not familiar with areas such as airport. This statement showed experienced visitors will face minimum problem in navigating in airport compared to non-experienced visitors. It has become a frequent habit when first-time visitors in express their tiredness and regret when navigating through the large and complex building. According to Symonds (2017) the visitors felt angry and dissatisfied due to the incorrect representation of directions and arrows that have led them to the wrong destination. This is the criteria of information system and graphic system that need to focus while designing the wayfinding signage to avoid such problem. Wayfinding signage becomes challenging when in large and complex buildings such as airport. Large and complicated buildings can cause people to lose direction and cause various problems. Current study discusses a lot of wayfinding signage that is in a complex building like an airport in creating the perfection of the system. However, there is no specific guidelines for wayfinding signage in large and complex buildings (Jeffrey, 2017). This study investigates the

significant factors of ineffective wayfinding signage and the most appropriate criteria and guidelines to be applied that can improve wayfinding signage function in large and complex buildings such as airport.

1.5   CONCLUSION

Factors of ineffectiveness of wayfinding signage at airports have been identified through the literature. It consists of various factors including intricate building structure, huge space and confusing visitors. Visitors who are unfamiliar with the airport are quite difficult to get to the destination in a timely manner. This study emphasizes the criterion factors found on the wayfinding signage itself which are misleading. The average study shows that several factors that contribute to the ineffectiveness of a wayfinding system are information, language, and location of signage. This can be done by conducting a detailed study and data collection of an airport. Each airport has a different building structure and a different concept. Cooperation from various parties such as wayfinding designers, architects and the airport are very important in producing an effective wayfinding system. Thus, each criterion can be generated according to the importance of navigating visitors compared to other attractions.

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CONFLICT OF INTEREST

The author declares no potential conflict of interest with respect to the research, authorship, and/or publication of this article.

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