

A Conceptual Framework of SoLoMo Towards Integrated Industrial Revolution Solutions for Melaka Tourism 4.0 Initiatives

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ABSTRACT: The 4th Industrial Revolution (4IR) shook the tourist sector with a decisive change in improving mobility. It includes cyber-physical systems, the internet, the cloud, and cognitive systems. The Smart Tourism Initiative 4.0 in Malaysia aims to bring tourism to the next level. More and more people booking their visits online, plan and navigating the journey digitally, searching and guiding the facility on the fly. The aim is to make it possible for visitors to book a trip online, plan and navigate the journey, search and find the facilities they need at the right time. Local Authorities (LA) of Tourism have to adopt this new pattern of tourist activity in space. However, the current approach lacks to characterize and measure the patterns identified for tourism management purposes. There are four phases involved in the methodology: Data Collection, Coding, Theoretical Sampling, and Theory. SoLoMo provides a collaborative platform that enable data availability between applications. The main intention of this project is to improve customer service, which indirectly affects the hotel's business revenue and reputation to a higher level. Big data will help make informed decisions based on analytics and number-driven data.

Keywords: *Melaka Tourism 4.0; Conceptual Framework; Industrial Revolution (IR 4.0)*

1. INTRODUCTION

A SoLoMo is an acronym for Social-Local-Mobile, arose due to the popularity of smartphones and tablets that integrate geo-location technology (e.g., geo-targeting and mobile communication) [2],[5]. It produced greater local precision of information retrieval rather than the information available via a PC. The importance of the concept of SoLoMo in the tourism industry is to irritate marketing initiatives and add value or context-awareness through hospitality. The ideas of SoLoMo are based on the thought and take full advantage of social (So) networking usage, which has turned into a primary resource for business and consumers, including in the tourism industry, for example, in the online review market, a business or services. It is said that around 71 percent of consumers are more likely to purchase based on social media referrals [3]. In terms of Local (Lo), authors in [4] said that 94 percent of smartphone owners look for local information on their phones. The top search results or information displayed are the highest-rated businesses in that area.

Meanwhile, the keyword "Mo" refers to Mobile, where this term represents life on the go as a new way of

life. People trust the information they obtain on their phones, with 73 percent of mobile searches resulting in further action [5]. The combination of Social-Local-Mobile (SoLoMo) is essential for the tourism industry to gain leads online. The proposed framework serves as a proof-of-concept on how tourism, travel, and hospitality adopted the critical IR4.0 technology enablers [1],[6]. The main ambition is to build an interactive platform based on the state-of-the-art technology infrastructure, guaranteeing the sustainable development of services and products, accessible to everyone to the right people, to the practical activities, at the right place, and at the correct times. It will facilitate the tourist's integration into the destination, increase the quality of the experience and support individual's interaction to develop customized products and services. In other words, we want to foster the leap that was enabled by high technologies from Industry 4.0 at the products level by implementing them in tourism services. Besides, to utilizing information and technology to cope with younger and more tech-savvy tourists (Millennials) that are always connected to internet platforms by adopted the SoLoMo strategy.

2. METHODOLOGY

The overall methodology applied in this study is shown in Figure 1. The methodology consists of four phases: Data Collection, Coding, Theoretical Sampling, and Theory.

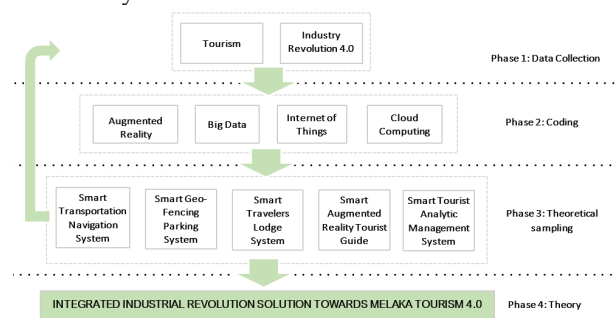


Figure 1: Conceptual Framework Methodology

In phase 1, the data collection phase related to the application domain of Tourism 4.0 is identified. The second phase involves analyzing and developing valid theories from the data. This phase is called Data Coding. The following phase is called Code Customization which the connection and relationship between tourism and IR 4.0 are studied to improve the quality of tourism support, especially in Melaka. This phase involves creating and refining the code tree, which allows to identify code with

similar content and group them into related concepts. In phase three, categories are created by similar grouping concepts that will ultimately be the basis for the new theory's structure. The last step entails the development of theoretical connections between the categories developed in the preceding phase. This theory may be a theoretical sample in which data is further selected to build the developing theory and elaborate the key categories that make it up.

3. RESULT AND DISCUSSION

The overall picture of the proposed conceptual framework is illustrated in the following Figure 2. It is divided into four main layers: Users, Application Domain, Integrated Industrial Solution for Melaka Tourism 4.0, and IR4.0 Enabling Technologies.

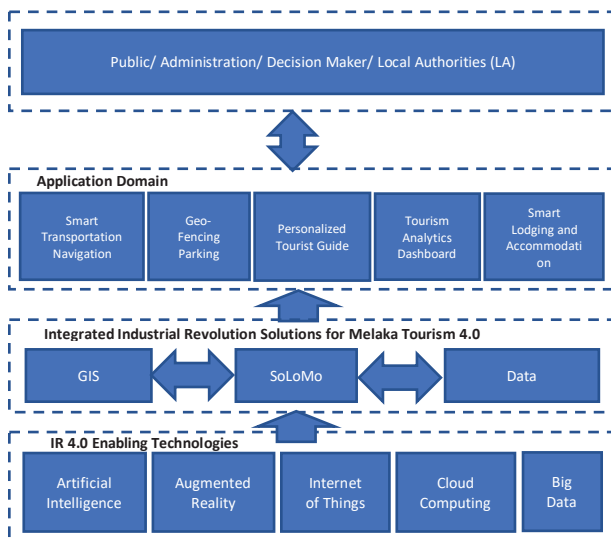


Figure 2 SoLoMo Framework for Integrated Industrial Revolution Solutions for Melaka Tourism 4.0

This study focuses on the five ICT/ IR4.0 enabling technology or multidisciplinary literature, which are Artificial Intelligence (AI), Internet of Things (IoT), Cloud Computing, Augmented Reality (AR), and Big Data. For example, the potential of AI in the transportation and navigation area. AI will be applied to boost efficiency and complete complex tasks that humans cannot easily manage. Parking is one of the main reasons for traffic congestion. When drivers cannot locate parking, they become upset and abandon their vehicles in the middle of the road. Cloud computing is the second technology enabler. It is applied to the Geo-fencing Smart Parking System. The system uses cloud computing to map the exact position of each parking space.

The third technological enablers may assist hospitality services. The implementation of IoT in the hospitality sector allows for tech-driven automation for hotels and allows guests to be accessible. Hotel rooms, homestays, guest houses, lodges, etc., can be connected to the internet by connecting them to their networks. The fourth technological enabler is Augmented reality (AR) that replace pamphlets and tour maps. Virtual information is placed on natural scenes in augmented reality. The concept of augmented reality is to alter what

people perceive around them. AR is an ideal tool for tourism as it offers new value and opens up new possibilities for both tourists and the tourism sector. Melaka Tourism 4.0 aims to bring and enrich tourists' experience of visiting Melaka to another level. The tourism industry can use big data for better management and improve how the tourism industry operates.

4. CONCLUSION

In conclusion, this study demonstrates the procedures followed to give insight into laying a foundation for the research's conceptual framework. The conceptual framework that emerges from grounded theory is presented as a collection of interconnected concepts articulated in a substantive theory.

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