

Association for Information Systems

## AIS Electronic Library (AISeL)

---

ICIS 2022 TREOs

TREO Papers

---

12-12-2022

### A Framework for the Blockchain Ecosystem for Smart Tourism

Aaron M. French

*Kennesaw State University*, [afrenc20@kennesaw.edu](mailto:afrenc20@kennesaw.edu)

Follow this and additional works at: [https://aisel.aisnet.org/treos\\_icis2022](https://aisel.aisnet.org/treos_icis2022)

---

#### Recommended Citation

French, Aaron M., "A Framework for the Blockchain Ecosystem for Smart Tourism" (2022). *ICIS 2022 TREOs*. 18.

[https://aisel.aisnet.org/treos\\_icis2022/18](https://aisel.aisnet.org/treos_icis2022/18)

This material is brought to you by the TREO Papers at AIS Electronic Library (AISeL). It has been accepted for inclusion in ICIS 2022 TREOs by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

## A Framework for the Blockchain Ecosystem for Smart Tourism

Aaron M. French; Kennesaw State University; afrenc20@kennesaw.edu

Tourism is a multifaceted industry that encompasses a multitude of services such as travel, lodging, transportation, attractions and more (Lock, 2020). Smart tourism is the use of technology to provide enhanced personalized experiences utilizing context awareness and real time data to improve the quality of the traveler's experience (Kontogianni and Alepis, 2020). The objectives of this research are to 1) expand the concept of smart tourism using blockchain, 2) introduce a framework for a smart tourism ecosystem utilizing blockchain, and 3) describe benefits through innovation that can further enhance the traveler's experience.

Prior research has evaluated various approaches to smart tourism such as recommender systems, social media use, Internet of Things (IoT), user experiences, real time information, augmented reality, and big data to name a few (Kontogianni and Alepis, 2020). Smart tourism expands on eTourism, which focused primarily on digital connections, to include the integration of physical and digital worlds (Gretzel et al., 2015). Smart tourism serves as an enabler that encompasses smart tourists, smart destinations, and smart providers.

Integrating the characteristics smart tourism and benefits that blockchain uniquely provides, this research derives a framework describing a Blockchain Ecosystem for Smart Tourism (BEST). The BEST framework consists of three layers that include 1) technology layer, 2) benefits layer, and 3) entity layer. The technology layer consists of the various smart technologies utilized by a smart tourism destination to enhance the tourist experience. The benefits layer describes the advantages gained by utilizing blockchain with smart technology to further enhance the capabilities and experiences by tourists. The various benefits identified in the model include communication, transparency, cost savings, value added service, data traceability, and security. The entity layer describes the various stakeholders that make up the blockchain ecosystem such as the smart tourist, smart destination, and smart service providers. Smart service providers include entities such as transportation services, entertainment, shopping, hotels, and restaurants.

Theoretical contributions include expanding the scope of smart tourism research to create a framework utilizing blockchain that can serve as a foundation for new and innovative studies. This creates opportunities for establishing new theories and applying existing theories to the growing research area of smart tourism and create practical applications for business.

### References

- Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015a). Smart tourism: foundations and developments, *Electronic Markets*, 25(3), 179–188.
- Kontogianni, A., & Alepis, E. (2020) Smart tourism: State of the art and literature review for the last six years, *Array*, 6, 1-12.
- Lock, S. (2020). Global tourism industry - statistics & facts, *Statista*, Retrieved from <https://www.statista.com/topics/962/global-tourism/>