Using Automated Tour Planning System to Simplify and Enhance Holiday Experience in Oman

Ayman Alomairi[1], Ghaniya Al Hadhrami[1] and Robin Zarina[1#]

[1]Middle East College, Muscat, Oman
[#]Advisor

ABSTRACT

The integration of technologies within the Omani businesses during the pandemic was the key to business continuities as it allowed them to operate differently and smartly. The same is expected in the post pandemic era especially in the tourism industry where the government is pushing for growth. This paper seeks to provide a simplified and enjoyable experience for the visitors of Oman. This will include an online system for automatic tour planning for the visitors which will help the tourist to identify places of interest, view packages, and book tickets through their smart phones. By registering with that system, visitors will also get notification of tourism related events. The system would be helpful for both visitors and tourism companies in terms of reaching potential customers, saving time, and cost. The solution will be developed using mobile application, database, and web technologies.

Oman Tours and Planners (OTAP) Company Business Model and Its New Advanced System

OTAP is a local company based in Oman providing services related to tourism sector to all tourists who plan to come and visit the Sultanate.

The concept of its business model is to design the entire tour package automatically by using a new advanced system. The tourist who wants to visit Oman have to contact the company, tell their budget and then the plan of the tour including safety measures, hotel rooms and plan for different tours are planned by the employee in the company. Additional services such as water, bag pack, and eating things as well as photography can be added (on-request).

OTAP Tourism and Travel Management System

This system is basically about managing hotels, and customers, other aspects of business. The system can be utilized for both business and professional excursions by using a single website that will be helpful for user for getting details of tour and places on a single platform (Johnston, 2011). The effective tourism system allows users to access all details related to travel such as events, location (Law et al., 2010).

Why is this System in Need?

The online system will help the tourist to book tickets and to view packages, so they don't need to come to office for manual registration. Also, they will get notification and the proposed system will be helpful for company's owner and manager so that they can manage the information of tourists it'll save cost and time.
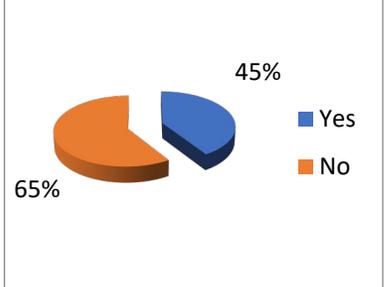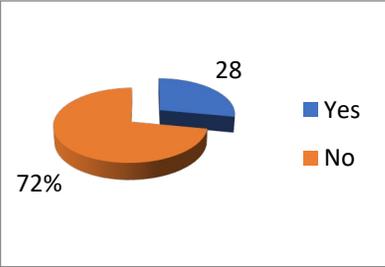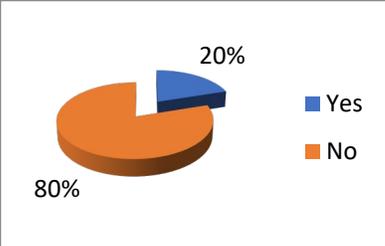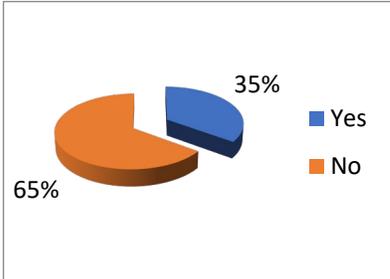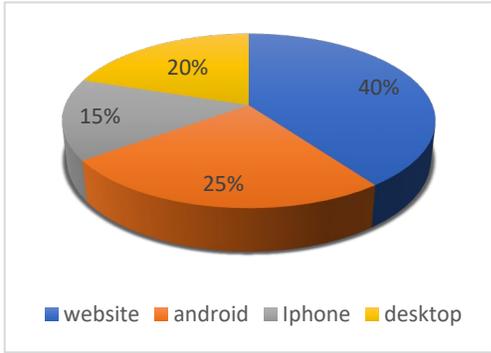Some of the features of the proposed system are that:
- It automates the activities and processes of travels.

- The system provides the customers the facility to make bookings online including accommodation and travel.
- The travel information can be viewed by the customers such as vehicle services, hotel facilities and also restaurant facilities.
- The website provides the video and photo gallery for specific locations.
- Transaction report and booking report can be viewed by the management.
- The system's interface is compatible with internet explorer, google chrome and Mozilla. The user can access the system by using any of these web browsers, opera and can be tested using Xamp. Hardware interfaces include USB, Ethernet and firewire.

Methods Used to Collect Data

Questionnaire has been used as a methodology to collect some data from tourists/customers to understand to what extent this is system is effectively helpful for both the OTAP as a business and the tourists as well, and here are the results:

Questions	Answers
1. Do you face problems while planning a tour?	
2. Do you face issues related to using Online systems?	
3. Do you think planning a tour is easy??	

4.**Do face problem in reservations of hotels?**	
5. **Which system will you prefer for automatic tour guide?**	

Conclusion

The proposed system is expected to provide an effective and efficient way to save and manage the data. And also provide an effective system to simplify the manual data entry. OTAP company will be automated by implementing the system in which will provide reliability and scalability.

Limitations

The proposed system is only designed to be applicable for tourism sector and to be fit for Oman market based on the results of this research. Further analysis and research need to be conducted in the event of using this system in other markets across the globe.

Acknowledgments

I would like to express my deepest appreciation to MEC College for all the support to complete this research throughout preparation, data sampling and analyzing. I am grateful to all of my department committee who provide me personal and professional guidance during this research.

References

1. Boje, D.M., Baca-Greif, H., Intindola, M. and Elias, S., 2017. The episodic spiral model: a new approach to organizational processes. Journal of Organizational Change Management.
2. Shylesh, S., 2017. A study of software development life cycle process models. In National Conference on Reinventing Opportunities in Management, IT, and Social Sciences (pp. 534-541).

3. Adeaga, O., Adeyemi, O. and Odun-Ayo, I., 2020, August. Software Requirement in Iterative SDLC Model. In Intelligent Algorithms in Software Engineering: Proceedings of the 9th Computer Science On-line Conference 2020, Volume 1 (Vol. 1224, p. 26). Springer Nature

4. Akbar, R. and Juliastrioza, J. (2015) 'Penerapan Enterprise Resource Planning (ERP) untuk Sistem Informasi Pembelian, Persedian dan Penjualan Barang pada Toko EMI GROSIR dan ECERAN', *Jurnal Nasional Teknologi dan Sistem Informasi*. doi: 10.25077/teknosi.v1i1.2015.7.

5. Mirza, M. N., Pourzolfaghar, Z. and Shahnazari, M. (2013) 'Significance of Scope in Project Success', *Procedia Technology*. doi: 10.1016/j.protcy.2013.12.080.

6. Mathur, A., 2007. Improve project success with better scope management. *Project Management World Today*, *9*(8), pp.1-5.

7. Maruping, L.M., Venkatesh, V., Thong, J.Y. and Zhang, X., 2019. A risk mitigation framework for information technology projects: A cultural contingency perspective. *Journal of Management Information Systems*, *36*(1), pp.120-157.

8. Trinh, Q.D., 2018, April. Understanding the impact and challenges of secondary data analysis. In *Urologic Oncology: Seminars and original investigations* (Vol. 36, No. 4, pp. 163-164). Elsevier.

9. Johnston, M.P., 2017. Secondary data analysis: A method of which the time has come. *Qualitative and quantitative methods in libraries*, *3*(3), pp.619-626.

10. Baggio, R. (2007). The web graph of a tourism system. *Physica A: Statistical Mechanics and Its Applications*, *379*(2), 727–734.

11. Halkiopoulos, C., Dimou, E., Kompothrekas, A., Telonis, G., & Boutsinas, B. (2021). The E-Tour Facilitator Platform Supporting an Innovative Health Tourism Marketing Strategy. *Springer Proceedings in Business and Economics*, *January*, 609–623. https://doi.org/10.1007/978-3-030-72469-6_39

12. Harianto, S. P., Walid Masruri, N., Winarno, G. D., Tsani, M. K., & Santoso, T. (2020). Development strategy for ecotourism management based on feasibility analysis of tourist attraction objects and perception of visitors and local communities. *Biodiversitas Journal of Biological Diversity*, *21*(2), 689–698.

13. Kazandzhieva, V., & Santana, H. (2019). E-tourism: Definition, development and conceptual framework. *Tourism*, *67*(4), 332–350.

14. Lucas, J. P., Luz, N., Moreno, M. N., Anacleto, R., Figueiredo, A. A., & Martins, C. (2013). A hybrid recommendation approach for a tourism system. *Expert Systems with Applications*, *40*(9), 3532–3550.

15. Morrison, A., Lehto, X., & Day, J. (2018). *The tourism system*. Kendall Hunt Publsihing.

16. Pröll, B., & Retschitzegger, W. (2000). Discovering next generation tourism information systems: A tour on TIScover. *Journal of Travel Research*, *39*(2), 182–191.

17. Rani, P., Ahmed, R., Mahmud, H., & Author, C. (2020). *Tourism and Travel Management System of Bangladesh*. *3*(3), 1–10.

18. Smirnov, A., Kashevnik, A., Ponomarev, A., Shchekotov, M., & Kulakov, K. (2016). Application for e-Tourism: Intelligent Mobile Tourist Guide. *Proceedings - 2015 IIAI 4th International Congress on Advanced Applied Informatics, IIAI-AAI 2015*, *July*, 40–45. https://doi.org/10.1109/IIAI-AAI.2015.190

19. Song, H., Gao, B. Z., & Lin, V. S. (2013). Combining statistical and judgmental forecasts via a web-based tourism demand forecasting system. *International Journal of Forecasting*, *29*(2), 295–310.

20. Strauss, C. H., & Lord, B. E. (2001). Economic impacts of a heritage tourism system. *Journal of Retailing and Consumer Services*, *8*(4), 199–204.

21. Tonge, R. (n.d.). *F easibility S tudies T ourism P rojects*.

22. Johnston, J. (2011). Travel and tourism. *George Eliot in Context*, *8*(10), 295–302. https://doi.org/10.1017/CBO9781139019491.036

23. Jones, T. M., Wicks, A. C., & Freeman, R. E. (2017). Stakeholder theory: The state of the art. *The Blackwell Guide to Business Ethics*, 17–37.

24. Law, R., Qi, S., & Buhalis, D. (2010). Progress in tourism management: A review of website evaluation in tourism research. *Tourism Management*, *31*(3), 297–313.

25. Magill, M., Quinzii, M., & Rochet, J. (2015). A theory of the stakeholder corporation. *Econometrica*, *83*(5), 1685–1725.

26. Ullah Miah, M. S., Masuduzzaman, M., Sarkar, W., Mohidul Islam, H. M., Porag, F., & Hossain, S. (2018). Intelligent Tour Planning System using Crowd Sourced Data. *International Journal of Education and Management Engineering*, *8*(1), 22–29. https://doi.org/10.5815/ijeme.2018.01.03