APPLICATION OF BUSINESS ANALYTICS IN TOURISM INDUSTRY

Bhogadi Pavan Kumar

Student, Malla Reddy university, Hyderabad

ABSTRACT

The tourism industry is highly complex with multiple players and systems like travel management companies and travel agencies ,call centres ,restaurants , hotels, resorts and other services and the tourism industry also have a lot of computation and challenges on external and internal factors .here the business application that is business analytics can help to sort out the challenges of the tourism industry by using 4 phases of analytics from the process of the collection of historical data to make insights for strategic decision making and strategic planning in this research we study about the applications of business analytics in tourism industry and challenges barriers In tourism industry respect of towards the business analytical side and implementation of business analytics application in tourism management effectively and also understanding the each phases of analytics that is descriptive analytics , predictive analytics , prescriptive analytics and optimum analytics . and examining the how the business analytics help in to increase effective smooth operation in external and internal phases of business and how it enhance the customers satisfaction by using the data and forming to insight for the strategic decision with some analytical process and techniques in the tourism industry and also helps in competitive advantage and understanding how business analytics can sort the challenges and barriers in tourism industry.

KEYWORDS: tourism industry, business analytics

INTRODUCTION

Tourism industry is adopting the industries specific technology and the tourism industry is a most complex with multiple hands and it is not a industries for have specific functions boundaries and it have considered various services like

- Hospitality(accommodation , restaurants)
- Transportation (airlines , car rentals)
- Travel facilitation and information (tour operators, travel agents ,tourist information systems
- Attractions and entertainment(heritage sights and theme , national and wildlife parks)

So the technology has a lot of scope in tourism industries supply is wide ranging and influenced by markets conditions that affect the environment in which tourism business operates

And it generated the national income (GDP) to the nation but it has having some challenges in internally and external and as we know the tourism industry is the consider the under the service sector based industry with multiple hands.

So the dynamic global trade drives industry to adopt modern and emerging technologies to become more agile and initiative has the tourism industry to be sustain or effective they have to reach their goal and observe future trends so here BA makes crucial roles to overcome
The business analytics is the helps in the making in strategic decision making to enhance the develop the their business by observing the critical changes in various business process such as procumbent,   marketing distribution , selling ,customer relationship management , etc..
The substantial integration of systems & technologies for effective communication among different information systems such as inventory, forecasting, planning, etc…,
To analyze data for making wise decision for understanding the competitive needs in business markets
And the business intelligence so it consistent of the internal and external data and also SBA (specific business intelligence), CBA (common business intelligence) to make effective operations throughout.

And the business intelligence in tourism industry is bring the evolution in tourism industry and also we make examples like telangana tourism , and other tourism to see the evolution and effective dynamic changes by the business intelligence it has the process starts from the

1. Data mining gathering the data and organize it through reporting
2. Turning into meaningful information through analysis
3. Making actionable decision aimed at fulfilling a strategic goal from the information through analysis

And also the business analytics have the 4 phases which helps in to make better decision

1. Descriptive analytics
2. Predictive analytics
3. Prescriptive analytics
4. Optimum analytics

as we discussing that the business analytics helps in the to make effective decision making by analyzing the data by various phases of business analytics and they are 3 major types of decision making in business analytics like or categories of analytics are

1. Operation analytics
2. Tactical analytics
3. Strategic analytics

And also in the tourism industry the business analytics can apply in various domains in tourism industry and also can use in strategic planning and decision making. And also the business analytics helps in the field of the revenue management, reputation management, strategic management, customer experience, market research, targeted audience marketing in tourism industry

REVIEW OF LITERATURE

The subsequent studies are the few existing work reviewed which were conducted by researchers in the sight of adoption and importance, applications, barriers, factors of the business intelligence and data analytics in tourism industry

This method can be described as a reproducible and explicit method for defining the essential works from other researchers and systematic review is identify and the findings of all relevant individual studies this research structure allows to future developments and update to be done on this conclusions, the following steps define the approach relevant to the beginning of this study (siddaway 2014)

- Definition of topics
- Search terms definition
- Source filtration according to search terms
- Inclusions and exclusion criteria

 the systematic literature review allows the optimal identification of relevant scientific works ,the study has classified the identification articles into some subtopics related to the business intelligence in tourism , a deep analysis of this article was done based on the following futures

- Topics
- Concepts and theoretical definitions
- Data sources
- Data type and sizes
- Data collections and analysis methods
- Report and visualization

As mentioned as the the articles has been retrieved from the large sources of database such as Research Gate, Science Direct, Springer, Taylor & Francis, Emerald and Wiley online library. The selected databases have a comprehensive library of articles by scholars', and industrial research journals.

To obtain the papers, the following keywords were searched on the databases mentioned above. The sets of keywords include "business intelligence", "analytics in hotels", "data mining", "decision support systems in tourism BA", "tourism industry", "BA

in tourism", "artificial intelligence" and "Big data" whose results were narrowed down further by matching the found cases with the field of interest i.e., tourism. The keywords were therefore associated with "tourism and travel industry" conjunctions to find related works. Some keywords were matched together to identify more relevant cases, for example "business intelligence" was searched in conjunction with "artificial intelligence" and "tourism industry".

Results obtained provide a wide distribution of topics related closely to the search terms. Specific articles used in the study were selected from the results leading to a significant selection of quality works with supportive content for the study. Sampled content from the research articles is also used to support findings in the discussion of the research outcome.

Search terms used to draw articles from the selected sources were developed from the topic definition and purpose of the study. The research focuses on the impact of application of BA been expounded on showing how each element supports the effectiveness of the BA

The data gathering process began on March 2nd, 2020, and filtered search results to match the period between 2000 and 2020. The study also includes conference papers and chapters in books consolidated with review and empirical articles. Out of searched items, a quick analysis using an inclusion and exclusion criteria is applied to review and dispose of unwanted documents.

Establishing an inclusion and exclusion criteria is necessary for a quality literature review. It helps sample the large number of relevant articles and easily determine the ones to choose for review as well as those to discard. Includes Bin selected sources since it is created based on the research study. The inclusive criteria includes peer reviewed sources as well as studies not earlier than year 2000. The study excludes studies that do not address the impact of BA in tourism industry

REASERCH GAP

The research gap of this study, research on the application of business analytics in tourism industry

- The Indian tourism system has long suffered from constrained resources increase in demand tourism
- The use of data & analytics found scanty in tourism industry

RESEARCH OBJECTIVE & QUESTIONS

The objective of this research on the to study on application of business analytics in tourism industry which helps to focus on the studying on

- To study the potential applications of business analytics in tourism industry.
- To identify the problems challenges barriers and issues in tourism industry.

SCOPE OF THE STUDY

The scope of the research on the application of business analytics in tourism management .from this research there is scope on studying, understanding the about business analytics and tourism industry and studying , understanding the present and future trends in the region of business analytics and also the trends of application of business analytics in tourism industry and also the understanding how the business technology applications especially analytics that impact on the tourism industry which has serviced based industry

RESEARCH METHODOLOGY

this research is about the understanding the application of business analytics in tourism industry where here the the research methodology is collecting 70 individual samples to understand the how the business application will impact on tourism industry it

to be adopted or not because due to the lack of time as limitation we chosen samples by the students regarding business analytics and tourism & hospitality student and as we done survey for understanding the adoption or application of business analytics in tourism industry so it is primary data and for this research we approached explorative research by taking the response from the individuals participants

limitations : in this research on the application of business analytics in tourism industry we taken only the individuals 70 samples that to from the student related to business analytics , tourism & hospitality students because here the major limitation is time constraint so we taken the respondents who are aware the business analytical applications and tourism industry technically .this is the major limitations while doing this research on application of business analytics in tourism industry

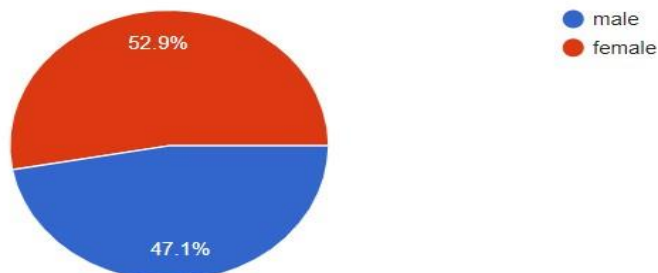## DATA ANALYSIS AND OBSERVATIONS

your age

70 responses
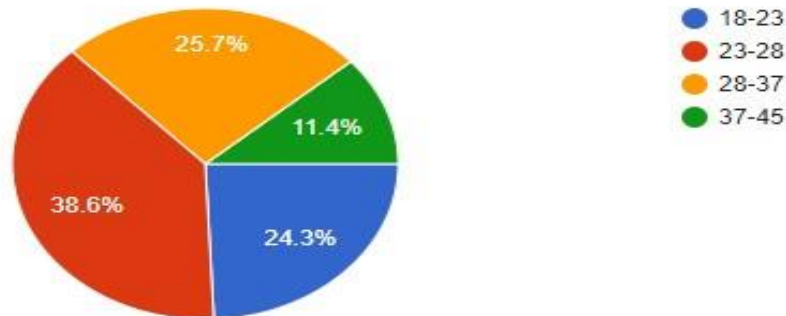
From this pie chart the age is 23-28 are responded high with 38.6% and later age of 18-23 with 24.3% and age of 37-45 is least with 11.4%
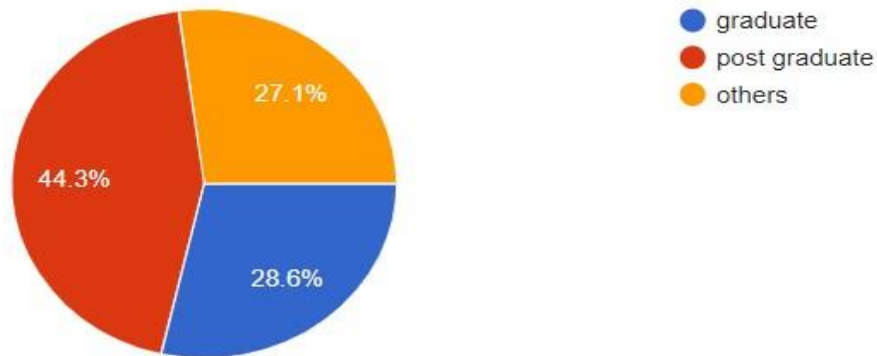
gender

70 responses

From this pie chart the the students reacted from the female that is 52.9% and men are 47.1%
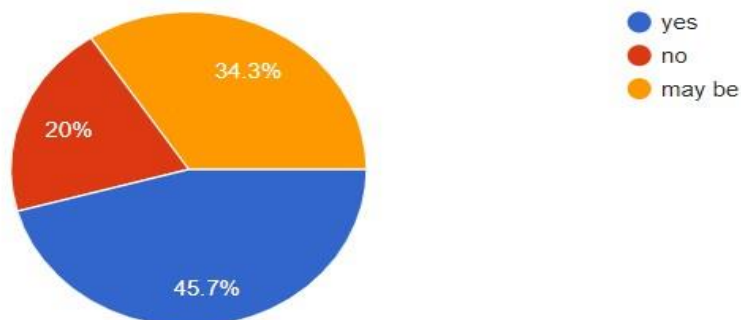
education

70 responses

From this pie diagram the regard the education of responses the post graduation is high with 44.3% and next graduate with 28.6% and last others 27.1%

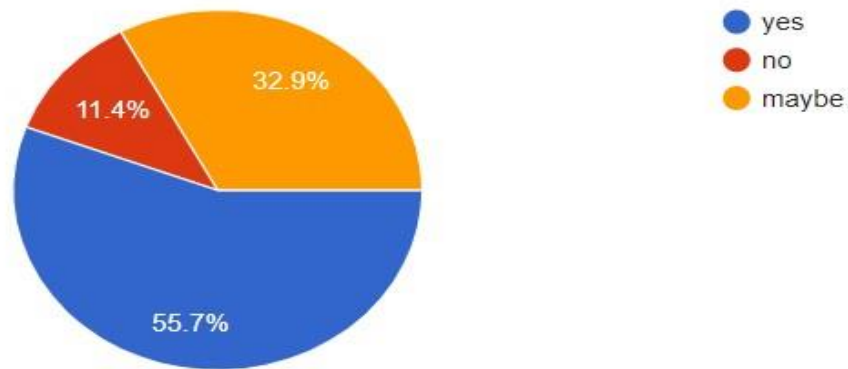do you think is business analytics useful to understand customer satisfaction

70 responses

From this graph we can understand that the responses are likely to yes to business analytics is useful to understand customer satisfaction with 45.7% and next is may be is 34.3% and least is the no which is 20 %

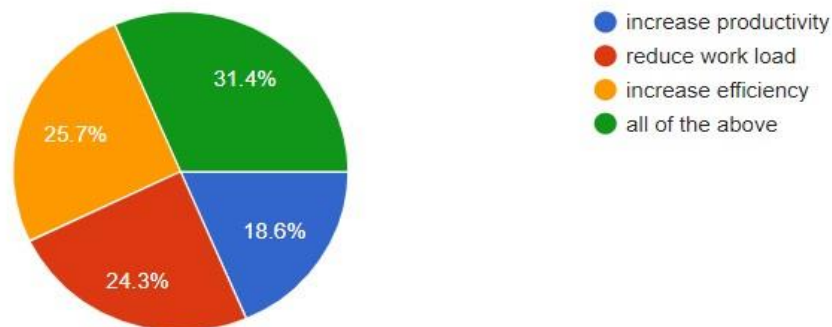## do you think business analytics is useful in tourism industry

70 responses

From this graph we can see that mostly responded as the business analytics is useful to tourism industry with 55.7% and may be is 32.9% and least is no with 11.4%

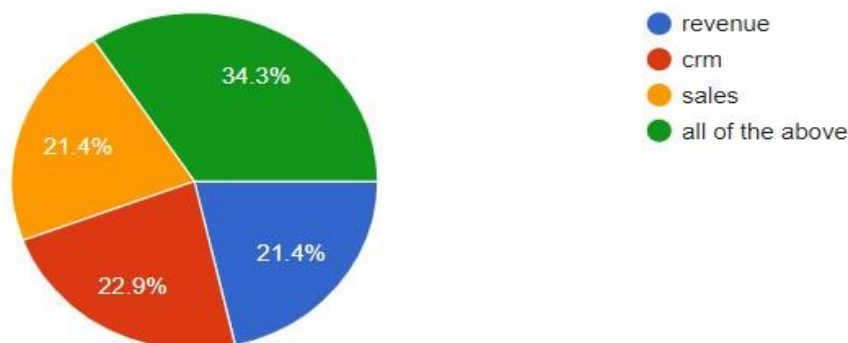## how is business analytics useful in tourism

70 responses

From this graph the impact of BA in tourism industry is 1.increase in productivity is 18.6%, reduce work load is 24.3%, increase in efficiency is 25.7% and all of the things are highest with 31.4%

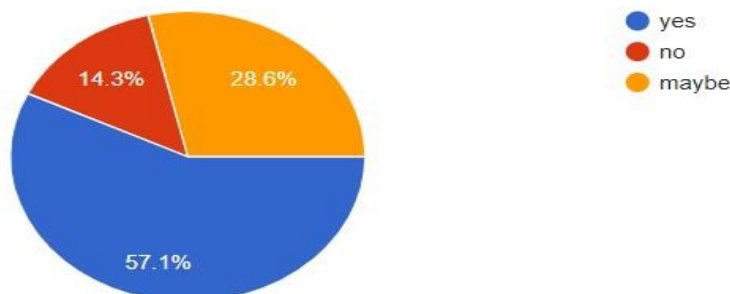## which of the following areas effected by BA ?

70 responses

From this graph the following effected by business analytics is revenue is 21.4%, sales is 21.4%, CRM is 22.9%, all of things are 34.3% which is high

do you think sales efforts fueled by analytical insights

70 responses

From the above graph the respondents responds the sales efforts fuelled by analytical insight majority is yes is higher with 57.1%, maybe is 28.6%, no is 14.3%

CONCLUSION

The application of business analytics in the field of the tourism industry brings benefits for the company as the improvement of the whole decision making process related to the area of `business activities related to the tourism industry it provides the insights or solutions to make proper strategies steps for reaching the company goals and objectives and also the focusing on enhancing the improvement of the customer satisfaction and making the smooth operation function process in tourism industry by using the business analytics application in tourism industry through the transforming the data which is collect or abstract from the various field by the tourism industry and applying and various analytical tools and phases such as descriptive analytics , predictive analytics , prescriptive analytics and optimum and diagnostic analytics to making insight for taking strategic decision for the strategic planning in applying different field in business such as operation level analytics , tactical level analytics ,   strategic level analytics to stable in tourism industry and facing the challenges and barriers in tourism industry by applying the business

application of analytics in various business which is related to tourism industry and also it helps in the analysing and frame working in thee SWOT & PEST analysis and having competitive advantage in tourism industry.

SCOPE FOR FUTHER RESEARCH

The further scope of this research on the application on business analytics in tourism management has this research focused on the certain research gaps such as. The Indian tourism system has long suffered from constrained resources increase in demand tourism. The use of data & analytics found scanty in tourism industry.

So this research can help to the understanding the business analytics application on tourism by focusing this research gaps and this research studied on the potential applications of business analytics in tourism industry and this helps to how to identify the problems challenges barriers and issues in tourism industry and how to solve it by using business analytics application. and this research helps to understand the how business analytics applications on performance of the business related to tourism industry in all directions and this research has scope on understanding the presents and future trends in application f business analytics and trends of technology on tourism industry and also it has scope on the understanding the trends on the tourism industry and this research helps the understanding the process and phases and categories of business analytics and studying the components of business analytics which helps in further future research which studies on this topic that is application of business analytics in tourism industry

BIBLIOGRAPHY

1. Business intelligence DCAP606 edited by sartaj Singh

2. Business analytics an introduction edited by jay liebowith

3. Manuscriptonlytext_09.03.18_final_MM.pdf (business intelligence and big data in hospitality and tourism industry

4. Gaardboe, R., Svarre, T.: Business intelligence success factors: a literature review. J. Inf. Technol. Manag. 29(1), 1 (2018)

5. Gozda turktarhan, ram gopalam, emrah ozkul: Big data and business intelligence in hospital and tourism

6.5_Amadio_procaccino William J Amadio, J Drew Procaccino: compatative analysis online review

7. Shailaja, in business intelligence, open source business intelligence sources: importance of business intelligence in travel industry\

8. The adoption of business intelligence systems in textiles and apparel industry: case study by sumeha Ahmed and suraya miskon: university of Singapore

9. Google book business analytics an introduction edited by jay liebowitz

10. https://helicaltech.com/importance-of-business-intelligence-in-travel-industry/