A Review on Utilization of Business Analytics strategy in Tourism Industry

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Article Info	ABSTRACT
	Business analytics is also used to gather feedback from customers and according to that feedback, services can be improved. Data analytics also helps to convert text into data which will help to get review sentiment score. This is used to convert textual feedbacks into numbers with the analysis of positive and negative keywords. The more your assumption score is the way better trade you're running. Numerous worldwide lodgings, aircrafts, and railroad are moreover utilizing information analytics for setting great costs and overseeing their income. It gives an in-depth audit of different applications of Trade Analytics utilized by tourism companies, and challenges related with the utilization of Trade Analytics by tourism companies. The major finding of the ponder is that Commerce Analytics has control to construct the corporate picture of the travel companies, through client engagement, brand situating, customized arrangements and through advertise division. Dim side of the Trade Analytics utilization, makes a difference in surrounding techniques which can kill the burden caused to tourism clients alongside harvesting greatest benefits from Commerce Analytics applications.

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1. INTRODUCTION

In the ever-evolving landscape of the tourism industry, the integration of information analytics has emerged as a transformative force, reshaping the marketing strategies of companies and offering profound insights into the purchasing and travel patterns of customers [1]. The ability to gather and analyze data provides a wealth of information, revealing details such as a customer's country of origin, preferred duration of stay, specific regions of interest, and budgetary considerations. This wealth of information allows companies to tailor their offerings, creating customer-centric packages and experiences that resonate with individual preferences.

Consider a scenario where a customer explores a tourist destination on a platform like Makemytrip.com. Every input and interaction on the website becomes a valuable piece of information, enabling the platform to discern the customer's preferences and tailor recommendations accordingly. This data-driven approach facilitates the creation of personalized and attractive travel packages, enhancing the overall customer experience.

Consider the scenario where a potential traveler navigates a popular online travel platform like Makemytrip.com. Every click, search, and interaction on the platform contributes to a mosaic of data, enabling the platform to discern the unique preferences and interests of the customer. This dynamic data-

driven approach facilitates the creation of personalized and enticing travel packages, providing customers with a bespoke experience that goes beyond the conventional one-size-fits-all approach.

In the contemporary landscape of the tourism industry, several trends are shaping the preferences of travelers. Factors such as flexibility, sustainability, a focus on lifestyle, and a desire for experiential travel are gaining prominence [2]. Business analytics plays a crucial role in not only identifying these trends but also in enabling companies to adapt their strategies to meet the evolving demands of consumers. This adaptability not only ensures increased revenue for tourism businesses but also contributes to the delivery of superior travel experiences that align with the shifting paradigms of modern travelers. In essence, the integration of business analytics aligns with the timeless adage that 'customers are king,' ensuring that tourism companies adopt a strategic approach that targets the right audience at the right time and in the right manner.

Furthermore, the strategic utilization of business analytics extends beyond personalization and trend analysis; it serves as a potent tool for comprehensive market research. By leveraging business analytics, tourism companies can dissect competitor data, gaining crucial insights into the offerings of other businesses in the industry. This understanding allows them to identify gaps in the market and innovate, creating differentiated services that set them apart from the competition. The sources of information for this analysis are diverse, ranging from online customer feedback to word-of-mouth recommendations, providing a holistic view of the competitive landscape.

Delving deeper into the realm of business analytics in tourism, it becomes imperative to explore the various applications and tools available to companies in the sector. This study sheds light on how these tools, when effectively employed, can offer a substantial competitive advantage. Moreover, the study doesn't shy away from acknowledging the challenges faced by companies in the implementation of business analytics, recognizing the complexity inherent in adopting this transformative approach. Through detailed flowcharts, the study elucidates the implementation process, providing stakeholders with a clear understanding of the methodical steps involved.

However, while business analytics presents a myriad of opportunities, it is essential to acknowledge the potential challenges and the nuanced considerations involved. This study, cognizant of the importance of business analytics for the tourism sector, aims to examine in-depth how tourism companies can achieve excellence through its strategic application. By navigating through the opportunities and pitfalls, this study endeavors to offer a comprehensive and nuanced understanding of the transformative role business analytics plays in shaping the future success of tourism enterprises.

2. APPLICATIONS OF BUSINESS ANALYTICS

Business analytics, a field that leverages data analysis and statistical methods to drive informed decision-making, has a wide range of applications across various industries. In the context of the tourism industry, as well as in general business operations, the applications of business analytics are diverse and impactful. Here's an elaborate exploration of its applications:

Customer Segmentation and Personalization:

Description: Business analytics enables companies to segment their customer base based on various criteria such as demographics, behaviors, and preferences.

Impact: This segmentation facilitates personalized marketing strategies and product offerings, enhancing customer satisfaction and loyalty. For example, in tourism, personalized travel recommendations and targeted promotions can be tailored to specific customer segments.

Demand Forecasting:

Description: Analyzing historical data and current trends allows businesses to predict future demand for products or services.

Impact: In the tourism industry, this application helps companies optimize pricing strategies, allocate resources efficiently, and plan for peak seasons, ultimately maximizing revenue.

Operational Efficiency and Resource Optimization:

Description: Business analytics aids in optimizing internal processes by analyzing operational data, identifying bottlenecks, and streamlining workflows.

Impact: For tourism companies, this can lead to better management of resources such as staff, transportation, and accommodations, resulting in improved efficiency and cost savings.

Risk Management and Fraud Detection:

Description: Analytical models can identify patterns indicative of potential risks or fraudulent activities.

Impact: In tourism, this is crucial for ensuring the safety of travelers, detecting unusual patterns in bookings, and preventing fraudulent transactions, thereby protecting both customers and the business.

Marketing Effectiveness Assessment:

Description: Analytics tools measure the success of marketing campaigns by tracking key performance indicators (KPIs) such as conversion rates and return on investment (ROI).

Impact: Tourism companies can assess the effectiveness of their marketing efforts, allowing them to allocate resources to the most successful campaigns and refine strategies for better results.

Social Media and Online Presence Analysis:

Description: Monitoring and analyzing social media and online platforms provide insights into customer sentiment and preferences.

Impact: Tourism businesses can understand public opinions, address concerns, and capitalize on positive feedback. Social media analytics also aid in shaping effective digital marketing strategies.

Dynamic Pricing Strategies:

Description: Through the analysis of market conditions and customer behavior, businesses can implement dynamic pricing models that adjust prices in real-time based on demand and other relevant factors.

Impact: In the tourism sector, dynamic pricing ensures that prices align with market demand, optimizing revenue and occupancy rates for hotels, airlines, and other service providers.

Supply Chain Optimization:

Description: Business analytics can enhance supply chain management by analyzing data related to logistics, inventory, and suppliers.

Impact: In tourism, this helps streamline the supply chain, ensuring timely delivery of services, reducing costs, and enhancing overall customer satisfaction.

Predictive Maintenance:

Description: Analytics can predict when equipment or assets are likely to fail, allowing for proactive maintenance.

Impact: In the context of tourism, predictive maintenance ensures that transportation and accommodation facilities are in optimal condition, minimizing disruptions and enhancing the overall customer experience.

Customer Feedback Analysis:

Description: Analyzing customer feedback from various sources provides valuable insights into satisfaction levels and areas for improvement.

Impact: In the tourism industry, this application enables businesses to continuously refine their offerings based on customer preferences and address issues promptly, enhancing overall service quality.

Business analysis is used to find spatial and temporal patterns of supply and demand in the tourism sector. Here, spatial patterns are the influence of tourism to a destination on demand in surrounding areas, while spatial patterns are patterns created by seasonal influences on demand factors. Using business analytics based on consumer demand for tourism destinations in a given period can help predict spatial patterns for that period. The need of the tourism sector [3] User-generated content, visitation rates, tourist access data, and search engine queries help generate business analytics for this technology. Mobile network operators are tools used in tourism analytics, analytics related to business analytics generated by mobile network operators whenever customers use the map, hotspots, while searching for restaurants or other places by some tourists. Section [5] that is to say using the MNO tool [4], you can also generate data related to the search for a specific location, from the original location to the comparison location.

This application makes the Trade Analytics a competitive edge for planning visitor inviting approaches and traveler plans for the potential visitors for a particular area. This method is one of the exceptionally imperative and broadly utilized application of Commerce Analytics in nearly all the divisions. A few companies are working on vector autoregressive models to assess the request of the tourism division, utilizing Commerce Analytics produced through web look inquiries and common database, and then using prescient examination instruments to appraise the demand [6]. A few markers which causes request for tourism segments, are taken together and after that these are analyzed utilizing the vector autoregressive models, to fit a slant line and knowing the cause and impacts relationship between the vectors. Centering on the causing components, one can arrange techniques for dealing with the intemperate and less request periods which are as a rule taken as the period for consideration by the marketers. Content mining is one of broadly utilized instrument of analytics, in travel division, where the audits, and feedbacks of the clients are accessible within the frame of content and the content mining is utilized for analyzing the trends, comparable designs within the content information. It is one of the special devices after advancement of the Trade Analytics, as prior the program accessible for the investigation did not have this highlight and the subjective information was extreme to analyze All these were influenced by the concept of reader or analyst, but now text mining applications in business analytics provide simple and meaningful information to decision makers. It helps travel agencies make strategic decisions based on the results of text mining tools. Machine learning or deep learning helps to generate raw data from the system itself, which can be used for analysis and through it different travel agency strategies are planned.

Deep learning technology, pricing strategies that adjust prices based on demand and seasonal conditions without considering supplier needs, forecasting demand, and delivering products or services to customers are some of the effective uses of deep learning through travel company. This can improve the customer experience in the long and short term, leading to word-of-mouth marketing and brand loyalty [7].

There is several software such as; Hadoop and EDB which shrinks the Business Analytics and derive the meaningful information out of it. Business Analytics requires lot of storage which also becomes easy by the companies while using some useful applications which handles the Business Analytics efficiently without losing the essence of the information. It mainly helps in managing the data which got generated by the customers when they search for a particular product, services, and offers or for any other reason. Data per click saved efficiently on the backend operations that it is easy to handle and make use of while doing any kind of analysis. In travel sector, this tool plays specific important because it's a two-way information flow, which provides the information from buyer to suppliers and supplier to buyer, and every search history of both buyer and supplier results into Business Analytics inventory and requires some tool to manage such data. Another important technique applied by travel companies on the Business Analytics is word frequency tool, which analyze the different attributes of the hotels, staff of the hotels, guest related attributes, and services related attributes [8].

This method converts words used in blogs, websites, customer forums, etc. on different topics and uses incident analysis techniques on different topics to analyze consumer behavior using travel agency services or lived in certain places. Based on the results, various actions were identified to improve customer satisfaction and the overall experience. Expansion of the tourism sector Virtual reality tools are used to provide memorable experiences to tourists. Here, Business Analysis becomes the basis for creating a virtual environment for the tourist destination that customers need. Before visiting a tourist destination, consumers can use virtual reality technology to pre-determine whether the destination is worth visiting. Visual and sound stimulation are used to make customers feel comfortable in a different environment [9]. Feel the natural environment. This technology attracts customers and helps promote tourist destinations through Business Analytics. This technology helps save tourists time and money. As the name suggests, web analytics is a tool for analyzing content content. This website provides travel agencies with a deep understanding of their business operations. This is the makemytrip website analysis.com or yatra.com [10] which measures the number of customer visits to the website, the products searched for, the filtering process used by the customer, the options the customer views and compares, the date of the customer's trip, the data customer contact number, the website searched for. for ROM location, search items, etc. Marketers use filters to clarify customer preferences for specific products or offers and various promotional offers that the customer sees [11]. In addition to all this, web analytics also provide information about the actual business generated by your customers, such as: Number of bookings, customer prices, payment methods, travel history and a specific travel agency, canceled transfers or bookings and cancellations , etc. Job boards are tools used by travel agencies for both buyers and suppliers. Customers have access to new search options, similar products, discounted products and more. The consumer dashboard shows the number of page searches, the percentage of selected and rejected properties, consumer comparison statistics and future demand forecasts for specific properties [12].

In summary, the applications of business analytics in the tourism industry are broad and multifaceted. From understanding customer behavior to optimizing operations and marketing strategies, business analytics empowers companies to make data-driven decisions that drive efficiency, improve customer satisfaction, and ultimately contribute to long-term success.

3.   IMPLEMENTATION OF BUSINESS ANALYTICS

Business analytics companies use many systems and hire many data scientists and business analysts to perform these tasks and oversee the necessary changes. The salary of data scientist in business analytics is quite high [13]. Also, for maintenance of site, to make it dynamic, to keep updating as per technology norms regularly requires lot of cost for a company. So, for many new companies and those who have low expenditure cost or are new in this business, find it very difficult and is quite challenging to compete with existing players. Tourism sector uses a lot of Business Analytics, Apps such as Airbnb, Oyo is entire based on technology and uses business analytics, data science and is entirely software based. Lot of new firms with great idea finds difficult to implement at initial stage as the cost is very high and it requires lots of ads/publicity/offers to make it a success. Business analytics work on the principle of real time data, the older the data less effective it will be for any kind of analysis. Hence, company requires the real time data to be processed, which not only requires the huge resources to be deployed by the company to access such data but also make it difficult. While for travel companies it is important to have the real time data, to predict the demand for the tourism services and products accurately "At the point when great data goes in the model, a great model delivers great outcomes [14]. The opposite is known as GIGO (Garbage In, Garbage Out). In the

era of business analytics, "it is becoming increasingly difficult for skilled analysts to sift through the vast amount of data and find the relevant pieces. "The legal-legal model can have disastrous results, leading to the right choices. In the age of business analytics, this happens all the time.In the following 20 comments, 10 contributors describe how they verified the accuracy of the data on AboutTheData.com.He found it wrong [15].

In one case, a volunteer found out that "she had two children when she was 26." Interestingly, the CNN Group found that Acxiom, the organization that manages the database, was more accurate in determining needs and less accurate in terms of category information (marriage of authority, number of children). Wrong ideas can make wrong choices. Data structure is another major barrier to applying business analytics in organizations. It was created by the technological age Data availability is simple and convenient, but the problem is that the data is not created outside of the database management system. This also hinders the adoption of business analytics as available data must be screened, classified and analyzed according to business requirements [16].

Most data comes in the form of semi-structured data such as emails, blogs and unstructured data such as: Reviews or comments. Business relationships are highly visible in the new world view of business analytics. They have been using their database and gathering knowledge and information for over 30 years. However, business analysis suggests new trends, many of which are in the manufacturing sector. New hardware security Hidden beliefs and assumptions require a lot of sharing and need different perspectives. For example, we need more diverse people to think critically rather than describe. Managers must also decide how to focus on the signs and symptoms and avoid getting caught up in the noise [17]. The purpose of using "analytics is to bring business esteem through better vital and operational choices, at the vital level, the individuals who settle on choices about what models to execute and what should be estimated will collect more power. At the operational level, the usage of such models brings a force move in the dynamic procedure." Data and training changes and the introduction of new software and new technology can be difficult for employees. Company adoption of business analytics is influenced by the perception of company management. Managers who believe in sound decision making tend to believe in analysis, accurate data collection, and making decisions or strategies based on facts and supporting statistics. These types of decisions Strategy and planning processes are effective and help solve traditional business-related problems. Travel agency managers must understand the importance of business analytics to the company's growth and future prospects and support analytics in all business decisions. The main hurdle in adoption of business analytics by any firm is lack of technological infrastructure which includes mainly the IT team, software and hardware. Business analytics requires huge amount of space to store the Business Analytics and an efficient team to handle and manage Business Analytics [18]. Tourism sector usually lack of these facilities and due to this they are unable to adopt the business analytics in their business. Business analytics can be completely implemented when it got updated and maintained on regular basis.

Daily there are new innovations happen across the globe and new software developed by the researchers to handle the new type of business problems, and new versions of same software came into market with enhanced feature. Being stick to the older versions of any software is not going to help the business in fulfilling the changing demands of the customers [19]. Hence, updation and maintenance is required. For travel companies it is difficult as they run on very low margin and investment in business analytics is not their priority. Taken a toll benefits exchange off appears the fetched included in selection of the commerce analytics and the benefits determined utilizing explanatory devices. The fetched isn't as it were related to the establishment taken a toll or the fetched of the scholarly enlisted for this reason, but it too includes the fetched to overhaul the computer program as per the changing require of the large scale environment [12], which makes it flawed whether the company will be able to procure the sufficient benefits out of commerce analytics or it is the fetched that will eat up its benefits inferred utilizing the analytics. Upgrading and support are the critical steps of the implementation prepare which requires tremendous resources [20].

4.   THRUST ZONES

Business analytics stands out as a crucial strategic tool, especially when it comes to enhancing customer engagement. In an era where technology advances at a rapid pace, companies that harness data effectively can gain valuable insights into customer preferences, likes, dislikes, and evolving attitudes. The utilization of data, paired with the right analytical tools, empowers companies to not only understand their customers but also actively engage with them. In the dynamic landscape of the tourism industry, this becomes particularly evident as travel agencies leverage business analytics to monitor and enhance customer engagement.

Travel agencies, operating in the highly competitive tourism sector, utilize business analytics to gather and analyze diverse sets of customer data. This includes tracking customers' travel history, monitoring information shared by travelers, collecting feedback after trips or stays at specific destinations, and using this

wealth of information to tailor personalized experiences. For instance, sending targeted emails to customers based on their travel history and preferences is a powerful way to keep customers engaged and encourage them to choose similar options in the future.

A key aspect of customer engagement in the tourism industry is the utilization of promotional messages. By strategically sending promotions to customers who have previously availed themselves of budget-friendly deals or used discount coupons, travel agencies can maintain customer interest and encourage repeat business. This personalized approach not only fosters engagement but also enhances the likelihood of customers choosing the company for their future travel needs.

Gamification is another innovative tool that travel companies employ to boost customer engagement. By integrating game elements, such as earning points, sharing project-related GIFs, and receiving likes from other users, travel agencies can create an interactive and rewarding experience for their customers. This not only adds a fun element to the customer experience but also encourages them to actively participate and interact with the brand.

In the realm of data-driven decision-making, travel agencies can leverage business analytics to reach wider markets and effectively connect with customers. The ability to analyze data enables these agencies to provide unique and tailored solutions, thereby increasing their market share and revenue while simultaneously enhancing customer satisfaction. Customization is a key facet of customer engagement in the tourism industry, and business analytics plays a pivotal role in this regard. By analyzing relevant data, such as individual price ranges, past travel history, and preferences, travel agencies can offer highly customized travel packages or exclusive offers. Additionally, recognizing special occasions like birthdays or anniversaries allows companies to provide personalized promotional discounts, creating a sense of exclusivity and appreciation among customers.

Ultimately, every solution offered by a travel company, whether it's a personalized travel package or a promotional discount, is grounded in some form of analysis. This analytical approach ensures that the services provided align with customer preferences, making the entire customer experience more meaningful and engaging. In the competitive landscape of the tourism industry, effective utilization of business analytics not only drives customer engagement but also positions companies for sustained growth and success.

Get feedback that helps us deliver customized solutions. Brand positioning and business analytics are closely related, especially in the technology world where everything related to digital resources, decisions and consumer behavior is influenced by data readily available to customers. Makemytrip.com analyzes customer behavior and choices and then uses business analytics to position its brand based on customer loyalty to the brand. This is also measured through the use of analytical business analysis tools, which can be used for real customers, the company can create a strategy for brand positioning and provide customers with new information about brand performance and future plans. The corporate image is the result of all the activities mentioned above, such as: Brand positioning, customer engagement and customized solutions. Travel agencies such as booking.com are the most common. It helps to improve the corporate image by analyzing data and providing specific solutions using analytical tools. Therefore, corporate image can be improved through business analysis and company decision making. Today, market segmentation is important to deliver the right product to the right customer.

Business analytics is what which the most desired tool for segmentation of market is. Market can be segmented using the Business Analytics and according to the different features of the different market segments companies can launch products. In case of travel companies, market can be segmented based on the geographic regions such as; Asian traveler or out of Asian regions, based on the travel budget further companies segment the market as budget traveler and traveler for leisure and entertainment, based on age groups of customers market can be segmented as travelers from young age, middle age and old age groups, travel places based on religions can be segmented etc. Booking.com, yatra.com, makemytrip.com, make use of market segmentation technique based on the travel history and search engine history of the customers to reap the benefits of the business analytics for achieving business excellence.

5.   BUSINESS ANALYTICS AND STRATEGY FORMULATION

In the competitive landscape of the tourism industry, the key challenge lies in the targeted and customized provision of services to attract and retain customers. Travel agencies rely heavily on semi-structured data, primarily derived from the search histories of potential customers. This data encompasses a wide array of information, including inquiries about travel plans, hotel reservations, taxi bookings, and airline ticket reservations. Mobile operators contribute to this dataset by providing insights into data hotspots, Google Maps usage, and more. The strategic use of this semi-structured data involves a sophisticated filtering process, employing analytical tools like cluster analysis. This allows companies to categorize customers based on various criteria such as destination preferences during off-seasons, gender-specific choices in tour

plans, travel class preferences, and the dichotomy between budget-conscious and luxury-seeking tourists.

Analytical tools further delve into the nuances of customer behavior, uncovering insights into choices related to hotel bookings and tourist destinations. By leveraging this information, travel agencies can formulate targeted marketing strategies, create personalized promotional offers, and design travel packages tailored to the specific preferences of different customer segments. The adaptability offered by the analysis of semi-structured data is particularly valuable. Travel agencies can dynamically adjust their offerings by identifying emerging trends and shifts in customer preferences gleaned from search histories and mobile data. This agility enables companies to stay ahead in a rapidly evolving market, responding promptly to changing dynamics and meeting the evolving expectations of their customer base.

The strategic use of semi-structured data in the tourism industry is a meticulous process involving data mining, filtering, and analysis. Insights derived from this data not only inform strategic decision-making but also empower travel agencies to enhance customer experiences through personalized and precisely targeted offerings. As technology advances, the role of semi-structured data is poised to become increasingly pivotal, providing a competitive advantage to companies that harness its full potential in shaping the future of the tourism sector.

Further, the reviews and feedback can be analyzed using the text mining technique which gives an insight about the actual experiences at different properties, and company provides this information to the property owners as well as for its own decision making related to the showing off only those properties which have good feedbacks and reviews to same customers, or customers having some similarities. Even the customers of a specific location can be shown same properties or other tour related products or services, as they share similar characteristics. Even on the basis of religious events or festivals, specific communities can be targeted using the predictive analysis technique for targeting and segmentation of business. Hence, there are several analysis tools which can be used by the travel companies for targeting and segmentation of the tourist market, based on the information, the decision or strategies are planned in such a way which can contribute in generating revenues for the business, along with increasing its customers base and customer satisfaction too. In the final implementation phase, the requested tools and information created for the problem are maintained and updated by the company. To get the most out of analytics, you need to keep adding information. This requires a lot of data to ensure the success of the implementation process. Business analysis is part of the company's strategic decisions, to be more successful and profitable. Good In the age of technology, everything depends on analytics. For example; people go for reviews section to decide about the place to visit, people check for reviews or ratings to go to hotel or restaurants, people read about the travel stories to make their mind about the travel destination, check for lucrative offers, promotional deals for booking any flights, or hotels, compare the prices, facilities and the visitors who stays at the properties. Hence, the customers of travel sector make decision based on the analysis, because in knowledge era data is easily available to all, which makes it further easy for a common man to take some rational decisions based on analysis of data readily available.

On the other side, travel companies make use of data for connecting the buyer with sellers, by showing various properties, travel options along with the full description. Companies make use of data inputs provided by thecustomers for further supplying this data to its suppliers, to make them aware about the future demand and the preferences or choices of the customers Therefore, not every operation in the travel industry is supported by data and analysis that these agencies cannot do properly. Offline travel agencies do the same, but the data they use is different. I like it; Receipts, along with the customer's name and contact details for receiving travel agency services, can be used to predict future or current demand, or location or in a particular community that is to say Therefore, travel agencies have to support their decisions with some kind of analysis to be effective and efficient. Digitalization and knowledge era, have made everything online, which leads to generation of huge data per second, and this data if not utilized adequately, strategies of the business can't be proved successful.

This data can be utilized through business analytics and hence, it should be a part of strategic decisions of the travel companies. Above figure make it clearer why business analytics should be a part of strategic decisions of the company, especially in case of travel and tourism sector. Business analytics has been considered as a tool to improve the performance of the businesses, to reach to the height of business excellence but it has its own dark side as well, which makes the companies think for a while before adoption of any business analytics tool for its business problems. Some of these drawbacks or the negative side of the business analytics or Business Analytics related to tourism sector and specially the companies like makemytrip.com or booking.com has been mentioned in this section. Business Analytics don't have a hold on the manipulative data or fake data, it is only the collection team who can check for this drawback of Business Analytics Fraudulent or fake data used in various analyzes automatically leads to misinformation and wrong trading strategies. People on tourism related websites sometimes post fake reviews or reviews through influencers, celebrities or fake email IDs to make themselves famous, tourists or to improve in the search process, tourism companies can use that data. difficult. In these cases, any kind of analytical analysis

can lead to misleading information.

The use of publicly available data for commercial purposes does not affect the individual, but the use of personal data that violates the privacy of the individual makes the analysis inappropriate business. For travel agencies, information provided by customers may be sent to credit card issuers, banks and insurance product companies and online booking sites that use data about customers frequenting the locations, domestic and foreign tourism. It doesn't make sense. This kind of travel agency behavior is a dark side of business analytics. Data analysis cannot be effective or efficient unless it is analyzed using the right tools and techniques. Data related to reviews or blogs can be analyzed using text mining tools, and the number of hotel bookings and cancellation rates can be analyzed using predictive analytics. Hence, only accessing and storing the Business Analytics is not at all worthy, until you possess a team of analytics which are expert in the area of data analytics. Business Analytics is all about the numbers, and only numbers-based decision can't take a business ahead in the industry, information based on analytics, with a combination of rational judgement based on market scenario and past performance can help in taking successful decisions for the business. For example, booking.com manager can take the decision of future bookings of a particular hotel in China based on the past month predictive analysis, but at the same time, he has to look for the coronavirus epidemic which can cause decline in hotel booking in same month, due to fear of epidemic in the country [21, 22].

Hence, Business Analytics has given some numbers or information about a trend, but the events happenings at macro level or micro level need to be discounted while taking any decisions for the business. Use of data gives an ease to the tourism companies for developing dashboard for sellers, and the visitors, derivingcancellation rates, number of visitors to a particular security and the comparative stats. People mostly book using thewebsites, and the all the major functions of the companies are done through web links only. Because there are very few customer requests that the company handles offline, if there is a data leak or server failure occurs for technical reasons, it is difficult for the company to handle them, this can lead to significant losses, including distress of the client. And customer complaints

6. CONCLUSION

Business analysis holds the transformative potential to sculpt the corporate identity of a travel agency, influencing customer engagement, brand positioning, and market segmentation. The essence lies in the power of data – a potent force that, when meticulously examined, unveils insights capable of steering business excellence across all operational facets. The adage "the more you torture your data, the more it reveals" encapsulates the idea that intelligent utilization of data can elevate every aspect of a company's operations. For travel agencies, the reliance on data analytics is even more pronounced, given that the entire e-commerce operation hinges on analytical data. This vulnerability, however, is a strength, as travel companies strategically employ business analytics to inform decision-making processes and enhance overall business performance. The judicious use of data emerges as a linchpin in steering travel agencies towards operational refinement and sustained success.

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