

# Impact of Covid-19 and the importance of seamless integration of information technology in tourism industrial business processes in Sri Lanka

Mohamed Munas

*School of Computing*

*Asia Pacific University of Technology*

*and Innovation (APU)*

Kuala Lumpur, Malaysia

[Tp054984@mail.apu.edu.my](mailto:Tp054984@mail.apu.edu.my)

Dr Kuruvikulam Chandrasekaran Arun

*School of Technology*

*Asia Pacific University of Technology*

*and Innovation (APU)*

Kuala Lumpur, Malaysia

[kchandran.arun@staffemail.apu.edu.my](mailto:kchandran.arun@staffemail.apu.edu.my)

**Abstract**— The tourism industry is one of the largest sectors within the service industries on a global scale which facing many challenges and has been enhancing business innovation accordingly. Considering the current COVID-19 global pandemic challenges has directed several countries to impose movement controls, the closure of the boundaries between countries, and travel limitations across the globe. The tourism industry is the most directly impacted industry among the other industries. Regardless of the size of the organization, the businesses are facing a high percentage of cancellations and business closure due to the downwards of the income. The systematic literature review has identified the gap in the lack of research as taken place to find the solution to overcome the current challenges. So the research study aimed to investigate the impact of the COVID-19 and the importance of the IT and business processes integration as a solution to face the challenges in the tourism industry. The investigation has been executed through the interview questionnaires and important data has been gathered for the analysis. The critical data analysis indicated the key findings to achieve the research objectives. The IT and business processes integration has been applied through the alignment model. The research also indicated the standardization for the suggested model and the business recovery plan and business continuity strategy for the tourism industry.

**Keywords**— *Covid-19 Impact, Tourism Industry, IT and Business Integration, Business Continuity Strategy, Business Recovery Plan.*

## I. INTRODUCTION

The world has changed through globalization, attempting to change needs and demands, along with new technologies. These days, directors and owners are directing businesses and organizations through the unpredictable and highly and increasingly complex business world [1]. The objective is to be significantly quicker than the competing companies by taking the course of the enterprise in a successful direction by taking long-term determination by evaluating [2].

Technology plays a vital role in managing businesses and becomes one of the core aspects of many companies, regardless of the scale of the organization [3]. According to the viewpoint of [4]. IT could be sharp as a cohesive set of aspects, such as the collection of information, the processing of information, and the investigation of information, to provide the organization with applicable information to make decisions on the market. Effective incorporation of IT into the enterprise impacts the development of market operations and has a positive effect on efficiency and most critically,

information technology could be the key to ensuring that the organization could stay competitive in the industry [5].

## II. LITERATURE REVIEW

This chapter will include a summary of past research findings of integrating IT into organizational business processes that could lead to smoother and more efficient business performance. In order, to specify the research area the tourism industry in Sri Lanka has selected. The findings of the research gap and the current problem and the challenges, the systematic research method has been applied and critically analyzed the past research findings.

### A) Business Process Management in the Industry

The backbone of each company would be the collection of operational processes, which ensures that the organizational attention to create and evaluate the business [6]. By gaining significant BPM sophistication, the company could have a significant influence on its results, improved planning, expense, and output, enhanced sales to meet organizational objectives, and strengthened managerial capabilities to implement developments [7]. The BPM has several phases integrated to process together in the implementation of the BPM into the organization.

## BUSINESS PROCESS MANAGEMENT

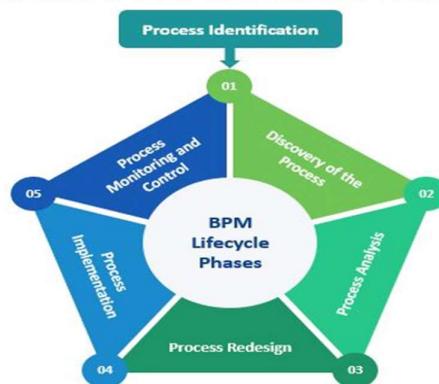


Fig. 1. The development processes of BPM [11]

Fig 1. illustrates that all the five major phases for businesses to implement BPM could be to maximize consumer trust, enhance operational efficiency, minimize costs, increase business process resilience, and promote an increase in performance.

### 1) Business Process in the Tourism Industry

The BPM in the tourism industry could be the commitment to overcome several of the fundamental flaws of a centralized structure and, which could be more in line with the organizational principles of the tourism industry [8]. This strategy encourages the concept of distribution of business functional power. In addition to various species, the set of business operations involves management processes. These processes are a sequence of practices structured to organize, manage, implement, and monitor the execution and maintenance of corporate systems that produce value for company owners and investors [9].

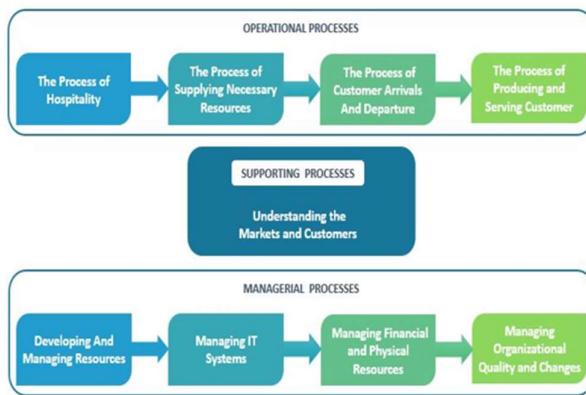


Fig. 2. Organizational business processes and characteristics in the tourism [30].

The concept of e-tourism encompasses such business transactions as e-strategy, e-planning, and e-management with all aspects of the accommodation industry, like hospitality, transportation, travel, recreation, leisure, leaders, intermediaries, and government organizations. So, the industrial business process integration could be important.

### B) Role of Industrial Business Process Integration

Business processes always play a significant part in facilitating the convergence of enterprise technologies and teamwork across different organizations. Integration could be divided into two categories internal integration and external integration [10]. A standard business strategy based on external integration of technology involves business operations for system implementation and systems integration for business intelligence incorporation [11]. As stated by [12], in order, to stay competitive, businesses need to be flexible and able to adapt the business strategies with an ever-changing market environment.

### C) Importance of IT System in Businesses Processes Integration

Many industries use IT systems as a core operation function such as the banking industry, insurance industry, education industry travel industry, etc. According to [13], the organizational functions or the management departments required information systems to plan, organize, lead, direct, and control the business operation and achieve the industrial goals [14]. The past research studies have shown that IT has a strong burden for business processes and IT integration in the organizational final result. Highly focused organizations tend to be using more advanced IT activities. The integration of

business processes allows the organization and IT decision-making to be coordinated [15].

### D) Influence of IT System in the Tourism Industry

The technology is evolving through any industries and also the emergence of new technology has brought about a sequence of transformations in the tourism industry that could be reflected in both, providing tourism services and the demand for tourism [16]. The advancing technology in general, and cloud infrastructure technologies in particular, allows the tourism destination authorities and professionals to utilize digital technologies to improve the decision-making in strategic planning and maximize tourist customer satisfaction [17].

### 1) Technological Enhancement in Tourism Sustainability

The new technology could transform the structure and operation of any industry and could create improved and innovative services to the customers. Technological developments are focused on innovative strategies and creative business models in the tourism industry [18]. Technological sustainability growth in the tourism industry could be viewed in two different segments. The second is advancement in digital technology that could enable the exchange of information on a worldwide scale [19].

### 2) Smart Tourism with Advancement of IT

The tourism industry is directly and implicitly related to technological advancement to improve customer faithfulness and have a strategic edge. According to the research findings by [20], smart tourism reflects the integration of IT and tourism and the development of tourism by technology. IT suggests the modern tourism focused on coordinated initiatives at a destination to gather and interpret data derived from a range of sources in tandem with the use of sophisticated information technologies to improve travel experience in order, to make it more productive, effective, and sustainable [21].

Fig 3, illustrates the modules based on three levels of data-related components in smart tourism. According to [22], the input of the module implies data collection and the smart layer that facilitates sharing interconnectedness and the smart components.

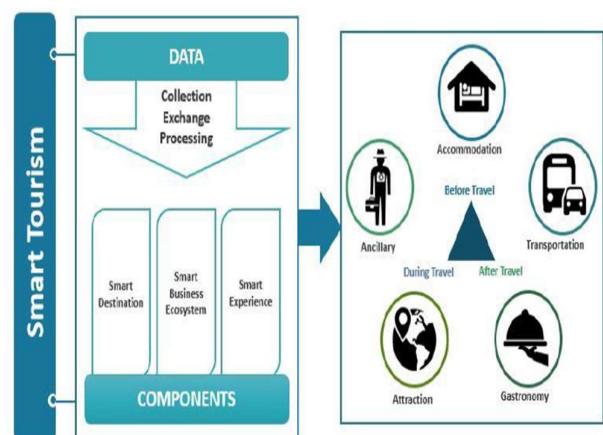


Fig. 3. Illustration of smart tourism components [31].

### E) Importance of Tourism Industry and Business Challenges

In recent history, the hospitality and tourism sector has proved to be among the most significant elements of economic development in developed and also in developing countries, in particular by supplying individuals with numerous incentives to extend the supply chain [23].

#### 1) Growth of Tourism Industry worldwide and compared by Regions

Several research studies have analyzed the correlation between the concentration of visitors, tourism production, government expenditure on tourism, and economic development. As the recent research illustrated as per the United Nations World Tourism Organization (UNWTO), the number of tourists in 2019 reached 1.4 billion, while the gross value of exports from tourist numbers amounted to around 2% of global GDP [24].

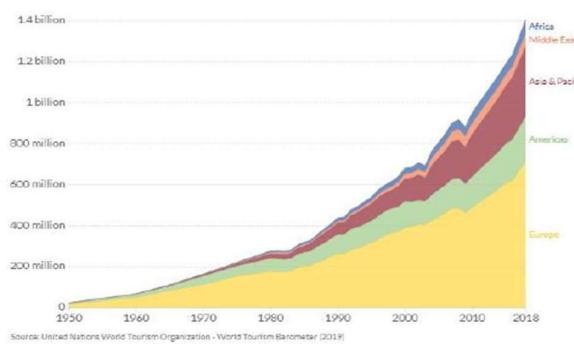


Fig. 4. Growth of Tourism Industry Worldwide by Regions (1950 - 2018) (Anca et al., 2020).

### F) Current Challenges and Issues in The Tourism Industry

The fast and continuous growth in the tourism operation during the last few years one of the most incredible economic, social, and cultural trends of modern time. Tourism has lately been strongly considering in several developed countries that have established policies for sustained development and tourism business sustainability in the ongoing competition [25]. But many tourism activities believe that early preparation at the planning phase of the new development of tourist attractions will resolve the issues.

#### 1) Impact of COVID-19 in Businesses and Industries

Coronavirus (COVID-19), one of the deadliest recognized viruses, has killed many people, and apparently, the entire world has lockdown till now due to control of the situation. This shows that the economic development of the world has weakened and more or less every business, impacted and the economy has also been shattered on a large scale worldwide [26].

#### 2) Effect of COVID-19 in the Tourism Industry

The introduction of COVID-19 as well as the large-scale travel bans threaten to devastate the regional travel and tourism industry. As stated by [27], the room service reservations were canceled during the time of the epidemic and did not come back to normal, which caused a significant loss in income worldwide that were linked to the spread of COVID-19 and hoteliers are particularly vulnerable to popular

hospitality and tourism, along with a decline in economic development [28].

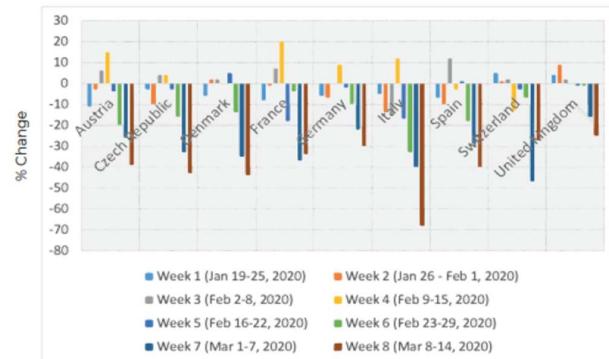


Fig. 5. European country's reservation trends by countries in 2020. [32].

#### 3) The Challenges Faced by The Tourism Industry in Sri Lanka

The challenges in the tourism industry in Sri Lanka have started from the year 2019, ride after the terrorist attack in 2019 which had highly impacted tourism. The civil war has mostly been suspected of committing large-scale destruction in the country, and also the social and economic effects. The civil war in Sri Lanka continued for three decades. After the civil war, the most recent militant attack encountered by Sri Lanka was the good Friday explosion, which occurred in April 2019 [29].

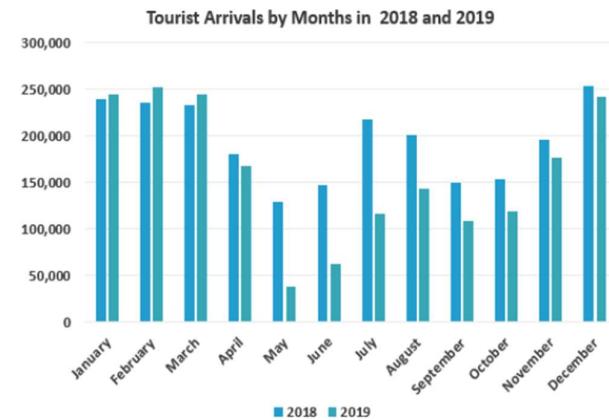


Fig. 6. Tourist arrivals by months in 2018 and 2019. Sri Lanka tourism development authority (SLTDA) annual report 2019.

### III. RESEARCH METHODOLOGY

As mentioned in the heading this chapter contains the research methods of the thesis and to more depth of this section of the chapter discusses the study technique, the study procedure, the research methodology, the data collection processes, the preparation of the dataset, the testing process, the form of data analysis, the ethical issues and the drawbacks of the research study. Relating to the research goal, the research analysis should generate qualitative evidence and generate similar theories. The research approach seeks to clarify why the research work has been undertaken, how the research problem has been established, how and why the hypothesis has been created, what data was collected and what basic technique has been applied, why various methods of collecting data have been used and several other relevant

questions commonly asked when talking about the research methodology.

#### IV. RESEARCH APPROACH

The results of previous research were examined in the literature review. The review of the literature was done based on a structured approach to figuring out the study's purpose and addressing the problem statement. A systematic analysis of the evidence is shown based on the critical past study and the collected primary data analysis point of view so systematic research methodology has been applied which has illustrated in the following figure.

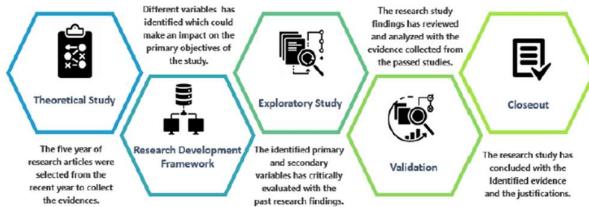


Fig. 7. Systematic research approach

#### V. CONCLUSIONS

The purpose of the analysis is to recognize the current epidemic impacting the tourism industry and to realize the effectiveness of the interconnected IT structure with business strategy in order, to address the current problem and challenges by planned and integrated business results to communicate with consumers by computer channels that could be the answer for tourism companies. Adapting to future demands by creating a sustainable competitive advantage in the tourism business and addressing the existing problems.

#### VI. LIMITATION OF THE RESEARCH

The limitations are defined as follows during the execution of the research study. The research study is limited based on certain considerations.

- The major limitation of the research was the time duration and the selection of companies for the data analysis which has been reduced. The investigation and evaluation have limited to the tourist hotels from various areas in Sri Lanka as a sample population. But the selection of tourist hotels is even limited through the applied case study for the research. Considering the three different seasonal tourist businesses in Sri Lanka, hotels have been selected from three different provinces in a different part of the country.
- The primary data gathering was first decided to be among two independent focus groups and would be carried out by interviewing. The first team had to describe the model current problems and conditions, whereas the other team presented solutions. The analysis struggled to operate outside the chosen company with IT and business specialists in the tourism industry.

#### VII. RESEARCH FUTURE DIRECTION

The tourism industry and defines future impact. The industry is a dynamic relationship between many partners and sponsors who work together for tourism products. It involves host government, residents, facilities, transportation, lodging, food, and beverages, etc. which deeply represent local

commerce, fashion, craft, festivals, faith, culture, and many others. The study could be focused on smart tourism techniques and strategies to face the challenges and overcome the challenges and issues. Considering the technological advancements and industry 4.0 the tourism researches could focus on tourism business-enhancement through digital innovations.

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