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To Link this Article: <http://dx.doi.org/10.6007/IJARAFMS/v12-i2/11352> DOI:10.6007/IJARAFMS /v12-i2/11352

**Received:** 17 March 2022, **Revised:** 19 April 2022, **Accepted:** 07 May 2022

**Published Online:** 23 May 2022

**In-Text Citation:** (Shazali et al., 2022)

**To Cite this Article:** Shazali, R. A., Kamaluddin, A., & Saad, S. (2022). Integrating Sustainable Tourism Model and Intellectual Capital Model for Sustainability of Hotel Industry during Covid-19 Pandemic. *International Journal of Academic Research in Accounting Finance and Management Sciences*. 12(2), 334 – 355.

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Vol. 12, No. 2, 2022, Pg. 334 - 355

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# Integrating Sustainable Tourism Model and Intellectual Capital Model for Sustainability of Hotel Industry during Covid-19 Pandemic

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## Abstract

This paper aims to conceptualize the importance of integrating sustainability model and knowledge asset which is intellectual capital (IC). The novelty of this research is to produce a framework of sustainability and IC to assist hotels to sustain and survive in the industry during crisis period. By using the systematic literature review method, this paper discusses the elements of social, economy and environment under sustainability model and the elements of IC which are human capital, relational capital, and structural capital. The findings indicate that IC has been included as an essential component of the sustainable model. This research offers useful insights and suggestions for hotel managers to enhance their operation and also provides guidance in the aspects of sustainability. Future research is recommended to validate the effects of implementing the framework.

## Introduction

A novel corona virus outbreak was first documented at the end of 2019 in Wuhan, China that infected more than seventy thousand and killed over eighteen hundred people within the first fifty days of the epidemic (Shereen et al., 2020). During that period, very little information was available on the disease. Corona virus or Covid-19, as announced by WHO on 11<sup>th</sup> February 2020, has negatively impacted the globe particularly in healthcare and the economy. Within the tourism industry, the hotel sector specifically is the most badly affected.

Previously, the world has also been affected by other pandemics namely H1N1 in 2009, and SARS in 2003. These pandemics has also adversely affected the economy worldwide whereby tourist arrivals have reduced and there were postponements of capital investment (Pine & McKercher, 2004). Chinese travellers were restricted to enter other countries while tourists were warned not to visit China and Hong Kong as WHO had announced China and Hong Kong as a high-risk tourist destination (Zeng et al., 2005). Due to this, tourist arrivals in Malaysia declined by 20% (AlBattat & Som, 2014).

Due to this pandemic, the tourism and hospitality industry in Malaysia claimed that most reservation had been cancelled and the length of stay had been reduced together with less expenditure being spent by tourists (AlBattat & Som, 2014). This situation affected all the industries in the tourism business including airlines, tour operators and hotels. During a crisis, travellers tend to change and reduce their spending pattern (Cracolici et al., 2008; Smeral, 2009). Apart from that, consumers focus their expenditures on necessities such as food and clothing (Smeral, 2009). Economic scholars have argued that in terms of labour income and employment, the economic impact of this tertiary service industry prevails over the primary and secondary industries such as manufacturing or agricultural-related industry (Daniels & Norman, 2003; Kim & Kim, 2015).

Apart from health hazards, tourism industry has also been affected by other disasters, namely natural disaster, financial crisis and man-made disaster. An example of natural disaster hazard is the 2004 tsunami in Sumatera, Indonesia. Although the tsunami was in Indonesia, Malaysia's and Thailand's tourism was also affected (Blazin et al., 2014). AlBattat and Som (2014) found that the Asian tsunami caused around RM30 million losses in the affected states in northern Malaysia namely Penang, Kedah, Perak and Perlis. The tourist arrivals dropped which in turn made the hotels and beach resorts suffer. This exhibits the negative effects of natural disasters both on the affected countries and also the neighbouring ones.

The Asian financial crisis which hit Malaysia badly in 1997 (Ariff & Abubakar, 1999) is an example of a man-made crisis. Due to the crisis, it was seen that the tourist arrival and hotel occupancy rate in Hong Kong declined by 27.4 and 9.4 percent respectively (Pine, Chan, & Leung, 1998).

The threat of terrorism which is also a man-made disaster has an enormous impact on the tourism industry. A number of terrorism incidents had dreadful effects. The most tragic incident was the 9/11 attack which was believed to be carried out by the Al-Qaeda against the United States. The attack jolted the world and therefore affected the tourism industry globally (Bhati et al., 2016). Tourist arrival dropped over 33 percent globally attributable to the 9/11 attack (WTO) whereby the Muslim majority countries were affected the worst and Malaysia was one of them (Bonham et al., 2006).

These hazardous disasters destroy the tourism industry. Reservations are cancelled, while expenditure in tourism is reduced. Post disaster recovery plan is crucial whereby recovery is the process of bringing back the business operations back to normal (Eisendrath et al., 2008). Recovery is identified as the process of self-analysis, healing and rebuilding the damages done (Faulkner, 2001). According to Lindell (2013), the disaster recovery attempt should be conducted immediately after the disaster incident ends in order to re-establish normal social, political and economical routines.

Bringing the industry back to normal is not an overnight process. For example, the tourism and hospitality industry in Malaysia took over six months to recover from SARS and Avian flu (AlBattat & Som, 2014). On top of that it took almost two years for Malaysia to get back on track after the Asian financial crisis of 1997 (AlBattat & Som, 2014).

### **Problem Statement**

Tourism is said to be one of the main contributors towards a country Gross Domestic Product (GDP) worldwide. The Travel and Tourism sector has outperformed the global economic growth by 1% for 9 consecutive years (World Travel and Tourism Council (WTTC), 2019). As one of the largest economic sectors in the world, Travel and Tourism generates 10.3% of global GDP and provides 1 in 10 jobs worldwide which makes it the best approach in assisting

the government to generate employment (WTTC, 2019). While in Malaysia itself the Travel and Tourism sector contributes MYR173.3 billion (11.5%) to Malaysia's economy and 14.7% of total employment (WTTC, 2019). In 2019, Malaysia showed an increase in the Travel and Tourism GDP growth by 6.6% outpacing the economic GDP growth of 4.4%.

Unfortunately, Covid-19 has led the global stock market to be erased about US\$6 trillion in wealth within one week (24th February 2020 – 28th February 2020) due to fear, uncertainty and also the prediction that organizations' profit will drop (Ozili & Arun, 2020). Since, the pandemic spreads globally through the movement of people, while people have been asked to stay at home and banned from travelling and organizing large gatherings by local governments in order to help flatten the curve of the Covid-19 outbreak. Hence, this has put a great strain on the global economy particularly in the tourism industry (Horowitz, 2020; Stephany et al., 2020). These travel restrictions have reduced the demand for all forms of travel, which as a result has incurred the tourism industry a loss of US\$200 billion worldwide (Ozili & Arun, 2020).

Evidently, tourism industry is vulnerable to disasters since it is one of the biggest contributors towards a country's GDP, thus this industry ought to survive. Moreover, according to Bank Negara Malaysia (2019), tourism industry is predicted to be the most affected in Malaysia as tourists from China represent the largest tourist number entering Malaysia (Bank Negara Malaysia, 2019). In Malaysia, there are a total of 5,048 tour operators registered under the Ministry of Tourism, Arts and Culture (MOTAC) Malaysia as at 1st October 2020 (*List of Travel Operating Business and Travel (TOBTAB)*, n.d.).

). However, airlines and hotel sectors are the most severely affected sector due to this pandemic (Stephany et al., 2020) and 714 of the tour operators registered above are hotels (MOTAC, 2020).

Hotels are regarded as the most crucial sector in the tourism industry as every tourist visiting a destination will need accommodation. Malaysia is the top five most popular destinations for tourists in Southeast Asia. Due to the Covid-19 pandemic, the hotels in the tourism industry were among the most affected sector. In the United States, the employment in hospitality and leisure dropped by 47 percent or US\$7.7million (Franck, 2020). In Malaysia, 4880 hotels including budget hotels are registered with the Tourism, Art and Culture Ministry. According to a survey made by the Malaysian Association of Hotels (MAH), 15 percent of the hotels may have to close down permanently while 50 percent are considering to stop their operations (Ying, 2020).

Currently, the sustainable tourism concept is starting to gain attention among the industry. Today, tourism is not just a conservative industry that provides tourism activities, but it is now also being associated with sustainable development. Civilization has the ability to make development sustainable in order to make sure that the present needs are fulfilled without jeopardizing the needs of the future generations. Sustainability concept comprises three key elements namely economic, environmental and social (Padin, 2012).

All the three elements of sustainable tourism are affected by the tourism activities. Sustainable tourism is about maximising the positive impacts towards the elements. It is understood by most people that the environment element of sustainable tourism focusses on preserving the natural and physical environment. Tourism also has to take into consideration the natural resources, wildlife, natural landscape as well as the build environment. The economic element of sustainable tourism is also important as tourism is one of the main contributors to a country's economy and job creations (Green Tourism, 2011). This is the same case with the social element of sustainable tourism whereby the social impact of tourism is

very strong and normally everlasting with less hope to reverse the effect once it has happened (Green Tourism, 2011).

As mentioned earlier, hotels are very badly affected by this current pandemic. Hence, it is crucial for the key players of the tourism industry to step up and strategize to ensure sustainability of this sector. A more innovative model is required to assist the survival of the hotel industry. The current sustainable tourism model mainly focuses on the three elements discussed: social, economy and environment. Though the model aims to help businesses to sustain by practising it, it clearly shows that it is insufficient at this point. The hotel sector within the tourism industry in particular, is suffering greatly during this pandemic that numerous hotels have ceased business worldwide and a lot more people have lost their jobs due to this. This scenario proves that the current sustainable tourism model needs to be improved in order for the businesses to survive and to really sustain in the industry not only in the short term, but also in the long term. Additionally, when the industry is able to sustain better, the welfare of the people is also being assured. For that reason, the sustainable tourism model is proposed to be enhanced by embedding the intellectual capital (IC) perspective.

Past studies have strongly agreed that by efficient utilizing IC in a firm will aid in improving the performance of the firm. However, it is found by a study in the US, during financial crises, firm's variability in resource base does not really contribute to value creation process. In addition, the practicality in investing in intangible assets, including IC, is uncertain during economic crises (Kehelwalatenna, 2016). On the other hand, according to the proponents of the IC theory (Stewart, 1997; Riahi-Belkaoui, 2003; Kamath, 2007), IC generates competitive advantage and superior performance in a sustainable manner. Having the extra intellectual capital element like good human capital, networking and relationship with stakeholders somehow may benefit the firm and help it to sustain and survive during a crisis. IC is not being reported in the financial statements. Nevertheless, IC resembles the knowledge possessed which creates value for the firm (Isa, Abdullah, Hamzah, & Arshad, 2008).

As an industry that provides services, hotels are not regarded as a knowledge intensive industry (Engström et al., 2003). However, the knowledge possessed by the employees and also the organizational knowledge itself such as customer database and systems are significant to effectively operate a hotel in a competitive atmosphere (Engström et al., 2003). By combining the use of all the three elements of IC: human capital, structural capital and relational capital, IC will be the main driver towards creating value for the firm (Ognjanovic, 2017). Besides, according to Ognjanovic (2017), human capital is the fundamental element of IC whereby the structural capital and relational capital assist the human capital to perform. Additionally, Ognjanovic (2017) also concluded that an intangible asset such as IC creates more value as compared to the tangible assets. Hence, the exhaustive use of IC in the hotels is crucial to increase their value, efficiency and performance.

The management is in a constant challenge to update itself with the latest development due to the emerging business environment. However, it can be achieved if the organisation has strong intellectual capital as in qualified human resources and also has a culture of creativity and innovation (Almutirat, 2020). This signifies that intellectual capital is crucial in developing the business environment and creating competitive advantage for the organisation (Almutirat, 2020). This is in line with the findings of Wu and Sivalogathan (2013) that intellectual capital has significant effects on intensifying the creative capacities of the organisation. Carmeli and Tishler (2004) stated that optimizing intellectual capital results in economic and material values that have a competitive advantage which therefore makes

intellectual capital as the most vital intangible asset. Past researchers have also come to an understanding that successful organisations are those that optimize the use of intellectual capital (Almutirat, 2020).

A volatile business environment limits firms to find alternative solutions to the problems they face, hence, forcing them to use their existing resources efficiently. According to Sumedrea (2012), the process of organisational development and the victory it can accomplish heavily depends on the transfer and the development of their human capital. Given that businesses are becoming more multifaceted, vibrant and internationally competitive; knowledge (that an organisation has) as well as intellectual employees (who know how to use the knowledge) have become valuable intangible assets, which raise the ability of creating value for its members (Sumedrea, 2012).

A diverse board of directors has a positive influence on the firm's performance. Shahzad et al (2019) proved that companies with a diverse board of directors in terms of gender are able to perform better as the female directors on the board are more vigilant and responsible, hence the increased performance. This implies that the human capital element of IC is crucial in influencing the performance of a firm. Apart from that, in order to overcome the tourism industry breakdown during the SARS epidemic in 2003 for instance, Lim Boon Heng, one of the members in the board of directors of Singapore Airlines Limited and who was also the Minister in the Prime Minister's office of Singapore during that time; had made the most of his social networking advantage to build up the connections among the firm, other key stakeholders and the government (Ooi et al., 2017) displaying the utilization of the relational capital of IC in order to handle crisis.

The most important factor to develop a successful sustainable tourism in a community is by having the support of stakeholders (Gunn, 1994, as cited in Byrd, 2007). Any group or individual who can influence or is influenced by tourism development in an area is considered a stakeholder (Freeman, 1984, as cited in Byrd, 2007), where in this case the main stakeholders are the industry, community and also the government. In the 1987 Brundtland Report, it was stated that the sustainable development's common goal is to serve the society's interest and also to achieve a higher quality in life in line with the stakeholder theory which focuses on acting in the best interest of their stakeholders in order to create value for the firm. In other words, when the stakeholders are being included in the operation of the firm, achieving sustainability is feasible (Byrd, 2007).

On the other hand, resource-based theory suggests that resources that are valuable, rare, difficult to imitate, and non-substitutable are able to create competitive advantage for the firm and lead to better performance (Barney, 1991). As stated previously, IC is an asset of a firm that is unique and valuable which makes it as a strategic asset that if it is being utilized efficiently and effectively can be used to obtain superior performance (Kamath, 2007).

These findings act as evidence that it is important to embed the concept of IC into the sustainable model of tourism in order to enhance a firm's performance and to survive in the industry. Over the past decade, researchers have found that the efficient exploitation of IC positively affects an organization's performance. The exceptional usage of this intangible asset by a company will produce sustainable competitive advantage that will result in exceptional performance. Prior studies have examined the current sustainable model of tourism towards performance and some have included few elements from the IC. However, there has not been any study integrating the three elements of the sustainable tourism model with the three elements of IC all together. Therefore, the purpose of this paper is to provide an overview of the importance of the integration between sustainability model and

intellectual capital. The novelty of this research lies in the integration of IC into the sustainable tourism model in order to enhance the model to ensure the survival of hotel industry.

This study argues that an enhanced model of sustainable tourism for the hotel industry is crucial for it to survive. This enhanced sustainable tourism model will integrate the elements of sustainable tourism model with the elements of intellectual capital. Intellectual capital is well known and proven by many past studies that the exploitation of it helps to develop strategic competitive advantage which leads organisation to better performance. Hence, by integrating the elements of intellectual capital and the elements of sustainable tourism model it is believed to strengthen the sustainable model. Adopting the new enhance sustainable tourism model may assist the hotels to sustain in the industry and also achieve superior performance in return.

## **Literature Review**

### ***Sustainable Tourism Model***

Weaver (2006) described sustainable tourism as an intelligent way of exploitation in order to survive in the long run. Sustainable tourism involves three main elements: social, economy and environment which should be aligned to each other in order to sustain for future generations. According to Bâc (2014), the starting of sustainable tourism concept was deemed to be published in the first issue of the Journal of Sustainable Tourism in 1993 (Weaver, 2006; Hunter, 2002; Dodds & Butler, 2009, as cited by Bâc, 2014). In this new idea of tourism, entrepreneurs aim to support the community by protecting the natural resources and local culture. David Weaver, one of the spokesmen of sustainable tourism mentioned that this new type of tourism is shifting the focus from the tourist welfare to the welfare of the host community (Weaver, 1998).

The social element is defined as the aspect that affects the host communities either directly or indirectly with tourists and of interaction with the tourism industry. Host communities are frequently known as the vulnerable party in dealing with their guests and service provider for many reasons. These effects are not obvious as they are difficult to detect and it depends on value judgement. Hence, the sustainable tourism should promote inter-cultural understanding, preserve the heritage and customary values, and value the socio-cultural originality of host communities (Green Tourism, 2011).

According to Butler (2000) as cited by Bâc (2014), at the beginning, sustainable tourism emphasized on safeguarding the natural resources. This is because there has been great awareness by the environment organizations of proofs of deterioration of the environment due to tourism. Moreover, the main tourist location relies on the condition of the environment and the media hype that a tourist spot can be enjoyed due to the environmental awareness it shows. The relationship between tourism and the environment is complex. The environment's quality both man-made and natural is vital to tourism. However, tourism is said to have negative effects on the environment by the construction of infrastructure such as airports, roads and also tourism facilities like hotels, shops, marinas and so on. All the constructions may lead to erosions, pollutions and likewise. Then again, tourism can also positively affect the environment by promoting environment protection and conservation. This is considered a method to raise awareness and to finance protection of natural areas and also increase their economic importance (Green Tourism, 2011). Therefore, sustainable tourism should utilize the environmental resources wisely which is essential to the development of tourism by promoting essential ecological process and assist in preserving the natural heritage and biodiversity (Green Tourism, 2011). Tang et al (2017) studied the

environmental aspect of sustainable tourism that examined the influencing factors of carbon emissions of the tourism industry. The result shows that the increase in the number of tourists, inbound and outbound have both led to the rapid growth of carbon emissions.

Later, after the Sustainable tourism –Eliminating poverty (ST-EP) program was launched in 2002, the focus was more on the social component. This program was established to combat poverty by using sustainable tourism. Apart from that, the United Nations has also assigned 2017 as the International Year of Sustainable Tourism for Development (United Nations World Tourism Organization, 2017). In addition, the tourism industry recently has begun to focus more on the concepts of sustainable tourism. However, the intention is questionable as in whether it is with pure interest in respecting the sustainable tourism concept or it is just for the media's eye just to attract more tourists (Bâc, 2014).

According to Maftuhah and Wirjodirdjo (2018), there has been a large number of past studies that examined sustainable tourism, but not all of them discussed the sustainable tourism elements. For the social-cultural aspect, Domínguez-Gómez and Gonzalez-Gómez (2017) investigated the perceptions of stakeholders towards the impact of a golf-based tourism in Spain. Campón-Cerro et al (2017) examined the factors contributing to destination loyalty in rural tourism for sustainable improvement competitiveness. Furthermore, it was found that the image, quality and destination attribute satisfaction are the root cause for rural tourism loyalty. Furthermore, Ghapar et al (2015) discussed the resilience of the rural communities in Malaysia with the help of sustainability planning in rural tourism in Malaysia. The study implied that the resilience of the local community will be positively affected by a sustainable tourism development in the rural area.

It is without doubt that the tourism industry positively contributes to the economy of both the host countries and the tourists' home countries. One of the main objectives of a country to promote their attractions as a tourism destination is the expected positive economic effect. Like other aspects, this economic improvement will also have both positive and negative effects. It is expected that sustainable tourism will guarantee long-term economic operations, deliver socio-economic benefits to stakeholders, such as employment and income earning opportunities and most importantly may assist in the mitigation of poverty (Green Tourism, 2011).

On the other hand, past research that studied the economic aspects of sustainable tourism investigated the critical success factors of tourism and concluded that the quality, finance and human resources are the most crucial factors (Marais et al., 2017). Additionally, Khan et al (2017) examined the impact of air travel on inbound and outbound tourism related to trading and economy indicators and found that there is a positive relationship between the freights and outbound tourists.

As mentioned earlier, sustainable tourism has a positive impact towards the economy. The development of new tourist spots globally has escalated the competition to attract favourable quantity of demand. The managers of tourism destinations need to make sure that the destination success ties with performance and competitiveness based on the marketing and productivity models in order to ensure feasibility and profitability (Aissa & Goaid, 2014). Aissa and Goaid (2014) examined the performance of tourism destination in Tunisia and found that the efficiency of a destination is influenced by the investment from the public and private sectors in the tourism industry. They also concluded that the trade deficits negatively affect the destinations' efficiency. Apart from that, their findings also implied that the salary level in the tourism industry has a positive relationship with the destination's performance.



Papatheodorou (2002) discovered resorts' competitiveness in the Mediterranean and concluded that the development of tourism influences the economy. In other words, his findings implied that the hotel pricing framework assessed the performance of Mediterranean destination and the location of a destination affects the price of the hotels. Assaf and Josiassen (2012) also studied the performance perspective in tourism industry. Their goal is to examine and rank the factors that lead to tourism performance. They came out with eight factors of tourism performance: (1) tourism and related infrastructure; (2) economic conditions; (3) security, safety, and health; (4) tourism price competitiveness; (5) government policies; (6) environmental sustainability; (7) labour skills and training; as well as (8) natural and cultural resources. In order to achieve the sustainable development of the destination, the economy and the society, performance must be reflected in the long term (Rodríguez-Díaz & Espino-Rodríguez, 2016).

In essence, sustainable tourism is the tourism that is responsible for the current and future social, economic and environmental impacts and also tackling the requirements of the visitors, host communities, the industry and the environment. According to Bâc (2014), the United Nation is among the institutions responsible for the development of sustainable tourism. Tourism is said to become a means for sustainable development (Bâc, 2014). Today, it is customary that the consequences of rapid population growth, natural resources consumption and economic growth on the social, environment and economic are also the business affairs as they are for the governments (Millar et al., 2012).

Jitmaneeroj (2016) examined the relationship between each of the sustainability elements and the sustainability progress. He concluded that each of the sustainability elements has a different effect on sustainability development. He has also identified that the social element has the most impact towards developing sustainability, followed by the environment element and then the economy element. Apart from that, Budsaratragoon and Jitmaneeroj (2019) investigated the interrelationship between all the elements of sustainability. Their findings have also agreed that the social and environmental element is the most crucial factor that the organizations should prioritize in order to develop sustainability.

Besides sustainable tourism, there are also responsible tourism and ecotourism that are also focused on synchronizing the aspects of environment and social-cultural. Responsible tourism is whichever type of tourism that can be utilized in a more responsible way. This type of tourism stresses the responsibility of tourism industry by producing better economic benefits for local people; improving the welfare of host communities and involving the locals in choices that would affect their life; promoting the preservation of heritage and so on. The main objective is to reduce the negative impacts of social, economic and environmental. Hence, the definition implies that responsible tourism is making "better places for people to live and visit" (Green Tourism, 2011). On the other hand, ecotourism is the responsible travel to natural places that preserves the environment, nourishes the welfare of the local communities, and involves interpretation and education (Green Tourism, 2011).

### ***Intellectual Capital***

Throughout the years, there have various explanations and definitions of the term 'intellectual capital'. Abeysekera (2006); Choong (2008) considered defining assets for the starting point in describing IC. IC may be referred to intellectual material such as knowledge, information, intellectual property and experience which all of them can be applied to generate wealth (Choong, 2008; Kannan & Aulbur, 2004).

Agreeing to the resource-based theory, IC is known as a concept that encompasses the know-how intangible assets of a firm (Kehelwalatenna, 2016) that can lead to the creation of unique characteristics and value added for organizations (Nazari & Herremans, 2007). The IC itself is intangible which therefore makes it unique and able to prevent competitors to imitate (Ray, Barney, & Muhanna, 2004). IC is considered as one of the important assets in an organization to promote a firm's performance as it is able to create the competitive advantage (Mondal & Ghosh, 2012).

Basically, there are three elements of IC: human capital (HC), relational capital (RC) and structural capital (SC). Human capital is also known as employee competence, social competence and attitudes (Garcia-Meca, 2006; Abdulaali, 2018). Martín-de-Castro et al. (2011) described HC into three elements: skills (leadership, communication), knowledge (education, experience) and behaviour (self-motivation, flexibility). It is referred to as the capabilities that the employees of the firm possess, which are able to create value or to some extent may become the firm's competitive advantages. Capabilities of the employees are the skills, experiences and knowledge owned by the individuals. Besides, the investments made by the firm for the improvement of their employees are also considered under human capital. Such investments are training, education support and others. Human capital has been proven by past studies as the most vital element for a firm to correspond with the environmental changes that influence the firms' performance through their experiences, skills and knowledge applied in order to increase firms' efficiency (Tarus & Sitienei, 2015). In short, the human capital element is the most significant element to improve firms' performance (Tarus & Sitienei, 2015).

Structural capital (SC) includes the knowledge or information that a firm itself possesses or otherwise named as non-human storehouses of knowledge (Bontis et al., 2000), for example, software, computer programs, database, structure, trademarks, patents and so on (Choong, 2008). The structural capital includes the mechanisms and structures of the firm that are being utilised to assist the employees to enhance intellectual and firm performance (Bontis, 1998). SC is the element that can be differentiated from the human capital in an organization. It is basically the non-human knowledge the organization owns and it stays in the organization even when the employees leave (Abdulaali, 2018). Structural capital is agreed by scholars to have a big influence in a firms' performance as the process, management, technology skills and other elements promote the development of a firms' performance (Gamal et al., 2011; Herzog, 2011).

Meanwhile, relational capital (RC) is basically the networks and relationship between the organization and their stakeholders (Choong, 2008). Hence, it is essential for a firm to have good relationship with the public, employees, vendors, customers and investors as they may provide the best feedback based upon the firm's performance (Asiaei & Joush, 2015). Therefore, relational capital is a crucial factor to improve a firms' performance (Abdulaali, 2018).

All in all, IC may be referred to intellectual material such as knowledge, information, intellectual property and experience all of which can be applied to generate wealth (Choong, 2008; Kannan & Aulbur, 2004). IC generates competitive advantages and superior performance in a sustainable manner. Having the extra intellectual capital element like good human capital, networking and relationships with stakeholders somehow may benefit the firm and help it to sustain and survive during a crisis. Without utilizing the intellectual capital that a company owns, the firm is not able to run strategically (Robinson & Kleiner, 1996).

### ***The Intellectual Capital in Hotel Perspective***

In the context of intellectual capital within tourism industry, hotel sector to be specific, human capital can be distinguished from structural capital and relational capital. Human capital includes mechanisms or associates related to the firm, namely knowledge, qualifications, experience, skills, to name a few. Bakirbekova and Konys (2016) have proven that the quality of human capital in the tourism industry influences the development of the industry. The human capital in the tourism industry refers to the tourism personnel such as the management, workers, associations or committee members as well as the ministry that possesses the skills and knowledge to be applied for the benefit of the industry. Bakirbekova and Konys (2016) stated that the competencies of the personnel must be developed at each stage from school to lifelong learning in order to be able to provide better services to tourists. This is also in line with the finding of Kaynak (2003), where he concluded that the higher the quality management being practised, the higher the income of a hotel, competitive performance and also the higher the stakeholders' satisfaction. Additionally, other past studies have also agreed to the quality of education the personnel received will result in higher quality skills and knowledge pertinent to the current demand of the industry (Goeldner & Ritchie, 2006; Kok, 2000; Harris & Zhao, 2004).

Structural capital in the tourism industry however includes features that are associated to the firm's resources such as the process, culture, management system, technology and so on. The tourism industry is recognised as one of the "high tech" industries as it is a mixture between the advanced technological solutions and the conventional interaction with tourists (Milišević & Milovanović, 2014). According to Brotherton (2004), information and communication technology (ICT) is crucial to the tourism industry, the hotel sector in particular. With ICT, the quality of service provided will be improved. Not only ICT will provide faster, more comparable and comfortable services, it can also reduce the operation cost for both tourists and tourism businesses (Bakirbekova & Konys, 2016). While the tourism industry is rapidly implementing the current ICT solutions in order to provide quality services, the employees of the industry must also be trained to apply those solutions (Bakirbekova & Konys, 2016). Apart from the technology available in the industry, the guidelines, policy and procedures documented in the businesses are also part of the structural capital (Isa et al., 2008). In addition, according to Isa et al (2008), knowledge is also stored in the training modules designed by the internal trainer of an organization.

For the relational capital in the tourism industry, it is represented by the ability of the organization that has been caused by its external relationship. Commercial relations are ranked top five of the most important intangible assets for the performance of a firm (Hall, 1992). Hall also stated that to recover commercial relations is not as time consuming as to recover the reputation of a business. Relationship among stakeholders comprises strategic assets that are scarce, unique which is difficult to impersonate (Peteraf, 1993, as cited by Lopes-Costa & Munoz-Canavate, 2015). Relational capital affects the performance of organization through its impact on operational efficiency, hence making it a very important asset (Badaracco, 1991, as cited by Lopes-Costa & Munoz-Canavate, 2015). Broader customer base is fundamental for sustainable competitive advantage (Bhatt, 1998, as cited by Lopes-Costa & Munoz-Canavate, 2015). Market orientation aims to create satisfied customers as the fundamental which then will lead to improve business performance (Kohli & Jaworski, 1990, as cited by Lopes-Costa & Munoz-Canavate, 2015).

The hotels maintain their relationship with their customers by mostly providing a survey through customer feedback. Therefore, this develops a customer database and makes the

most out of their comments and suggestions. From there, they will study the preference of their customer and apply it to improve the quality of their services as well as to manage the customers' future expectations as proven by Isa et al. (2008). They studied on the hotels ranked three stars, four stars and five stars. In order to provide superior services to their loyal customers, the upper ranking hotels use the customer database to track the loyal customers. As for the five stars hotels, they may also acquire information from their subsidiaries or sister hotels in other regions.

Since tourists come from all over the world, upholding good relationship with tour operators and travel agents is also crucial. Additionally, Malaysian hotels need to preserve good contact with the Malaysian Association of Hotels as it is the repertoire for human resource needs (Isa et al., 2008). As for the lower ranking hotels; two-star hotels, they do not develop customer database for the feedbacks. However, they retain their good relationship with the government agencies as they are the regular customers (Isa et al., 2008). International literature has agreed in their findings that the interactions of the elements of IC; human capital, structural capital and relational capital positively affect the business performance.

### ***Sustainable Tourism and Intellectual Capital***

Since it has been proven by past studies that the social aspect of tourism has a very strong influence towards sustainability development, it can be enhanced with the perspective of intellectual capital specifically the human capital element. The social aspect of sustainability is more towards the welfare of the society like education, employment, just to name some; whilst the human capital element of intellectual capital is the knowledge and skills that the organization possesses. Moreover, none of the past studies examined the sustainable tourism in the perspective of intellectual capital. Rivera (2017) studied the relationship between human development, economic growth and tourism in Ecuador. He came out with three conclusions; first, he found that tourism does not influence human development, but human development has positively affected tourism instead. Second, there is a virtuous cycle between human development and economic growth. Third, economic growth leads to tourism growth, and not the other way around.

Intellectual capital has been an area of research for the past several decades. The study on IC has been evolving through different stages (Guthrie, Ricceri, & Dumay, 2012). The first two stages were actually about trying to understand the concept of IC and its effect towards value creation of a firm. It all started in the period from 1980s to 1990s, the first stage, when the researchers agreed on the same term for IC. They agreed that IC is able to manage a firm's competitive advantage (Guthrie et al., 2012). As the new millennium approached, the second stage started when the researchers were examining the methods of measuring, managing and reporting IC (Dumay & Garanina, 2013). The research on IC started to evolve in the third stage as IC was analyzed in practice and its impacts on management were examined (Dumay & Garanina, 2013). The fourth stage of research is relatively recent which aims to develop IC with the objective of broadening the concept of IC by including new aspects (environment, sustainability) (Nirino et al., 2020); such as cities (Dameri & Ricciardi, 2015), countries (Kapyla et al., 2012) and social (Bounfour & Edvinsson, 2005). Hence, the fourth stage is expanding the IC principle of value within and beyond the limits of the organization (Massaro et al., 2018). Therefore in this stage, researchers are examining the interrelations between the three aspects of social, economic and environmental sustainability within IC (Massaro et al., 2018). As IC has been proven to improve firms' performance, IC is also influential to develop sustainability. Pedro et al (2020) verified that IC has a direct and positive impact towards

sustainability. They studied the relationship between IC of higher education institutions and sustainability development practices. Furthermore, Ooi et al. (2017) concluded that the diversity of human capital and social capital in a firm is crucial to reduce the negative effects of crises. This implies that IC is also a tool to be used to deal with crises.

### ***Sustainable Tourism and Hotel Performance***

As agreed by Kazemian et al (2020); Sebhatu (2009), in order to be considered sustainable, organizations must have positive long-term financial and social performance. While as cited by Kazemian et al (2020); Manning (1999) agreed to that, the long-term financial and social performance can indicate the long-term sustainable performance of the tourism and hospitality industry. The performance of hotels is not only measured by performing well financially. Performing also referred to the ability to survive and accomplish desired goals where in the context of sustainable tourism, it is to be able to achieve social, environment as well as economic goals.

Although the economic performance of a hotel is widely understood, the social performance on the other hand has been expressed and measured from various viewpoints, like the use of social and environmental concept of what is set out by the aspects upon which social performance is conceptualized (Lahouel et al., 2021; Uyar et al., 2020). Hussain et al (2019) indicated that the society is one of the main contributors to sustainable social and financial performance of hospitality operators. They also stated that putting the society as a priority will lead to hotels performing more efficiently. Furthermore, by prioritizing the employees' welfare and society's protection, the reputation of organizations will be improved and therefore leads to social performance (Agyabeng-Mensah et al., 2020).

### **Underpinning Theory**

#### ***Stakeholder Theory***

Sustainability can be achieved if the stakeholders are involved in the process (Byrd, 2007). Stakeholders are defined as any "group or individual who can affect, or is affected by, the achievement of an organisation's purpose, or performance" (Freeman, 1984, as cited by Bakirbekova & Konys, 2016). A stakeholder theory on the other hand, is a concept that believes the success of an organization can be achieved if it satisfies the interest of both stakeholders and shareholders (Freeman, 1984). Hence, by referring to the stakeholder theory, good relationship between an organisation and its internal and external stakeholders will lead to the improvement of the economy which will therefore improve sustainability (Barnett & Salomon, 2012). Byrd (2007) analysed the parties that are responsible to improve sustainable development. He identified four groups; the present tourist, the future tourist, the present host community, and the future host community.

Stakeholder theory is widely used to study the influence of corporate sustainability towards financial performance. Organizations that are acting in the best interest of their stakeholders are able to improve their financial performance and eventually create firm value (Driver & Thompson, 2002; Harrison & Wicks, 2013). Budsaratragoon and Jitmaneeroj (2019) applied the stakeholder theory to investigate the relationship between the elements of corporate sustainability that signifies an organisation involvement in social, economic, environmental and governance activities. Their findings suggest that the economic performance is positively influenced by the performance of social, environment and governance.

The damage caused by disasters or crises to the tourism industry does not only have bad influence on the economy, but also places the stakeholders' future at stake. By applying the

stakeholder theory in the sustainable tourism model, it is believed that hotels will sustain by acting in the best interest of their stakeholders. Moreover, the sustainability of hotels in this industry is also crucial for the stakeholders' benefit. For example, when hotels are in business, the business and the employees contribute taxes to the government for country's development. At the same time, the suppliers and contractors of the hotels will also have business income, and also the employees will re-spend their salary on the local businesses. This is in line with the findings of Hussain et al (2019), that by focusing on the customer's needs and requirements and making the hotels more integrated, the hospitality sector is able to create added value for their stakeholders and also benefit them financially.

### ***Resource-Based Theory***

Resource-based theory is defined as a concept of possessing strategic valuable resources that cannot be substituted which can promote competitive advantage for the company that will lead to superior profits over time (Barney, 1991). A strategic resource is an asset that is unique, valuable and hard to imitate and a resource is considered valuable when it is able to create opportunities (Barney, 1991).

Superior performance can be realized once the resources have achieved sustained competitive advantage. According to Wright, McMahan and Williams (1994), the human capital of an organization is a source of sustained competitive advantage as the skills and knowledge are embedded in the employees (inimitable), which is constantly being developed (rare) and the exploitation of employees' competencies through the organisation's operations (valuable); in order to accomplish the organisation's objective and therefore create value. Wright et al (1994) also inferred that possessing strong human capital is beneficial as human resource is inimitable. Kamaluddin and Rahman (2013) suggested that in order to enhance performance, each of the IC elements should be embedded with the unique quality in resources (valuable, scarce, inimitable, difficult to substitute). Riahi-Belkaoui (2003) asserted that under the resource-based theory, it is crucial to efficiently exploit the internal resources of the firm both intangible assets and tangible assets to achieve profitable activities. On the other hand, Barney (1991) has categorized resources under three classes being tangible, intangible and organizational. As they have stated that resources and capabilities can be seen as bundles of tangible and intangible assets. Besides, they included the firm's management skills, organisational processes and routines, as well as the information and knowledge it controls (Barney et al., 2001).

In retrospect, IC is the intangible asset of a company that will assist to create value to generate wealth. Based on the resource-based theory, Kamath (2007) concluded that by efficiently utilising the IC as a strategic asset, there exists a positive relationship between the intangible resources of the firm and its performance. Furthermore, the extent of research done on IC proves that the accounting, economic and strategic management areas are establishing IC with greater interest (Riahi-Belkaoui, 2003). As cited by Riahi-Belkaoui (2003), Mouritsen (1988) classified IC as a strategic asset among the intangible assets.

The resource-based theory explains how the owners build their businesses from the sources and competencies that they own or can obtain (Dollinger, 1999, as cited by Saffu et al., 2008). In other words, a sustained competitive advantage is produced by the exceptional compilation of resources at the fundamental of the firm (Barney, 1991). Some of the resources of a sustainable competitive advantage are the strategic planning and management skills, skilled and knowledgeable employees (Castanias & Helfat, 1991, as cited by Affu et al., 2008), as well as inferred knowledge (Polanyi, 1966, as cited by Affu et al., 2008). It has been

agreed that resources are the backbone to products and ultimately to performance (Wernerfeldt, 1984, as cited by Affu et al., 2008).

Since the hotel sector is in the service-based industry, the hotels require both tangible and intangible resources to produce various services, such as accommodation as well as food and beverages (McIntosh et al., 1995, as cited by Affu et al., 2008). However, this study will only focus on the intangible resources; particularly the intellectual capital owned and could be owned by the hotel sector. How well these resources are exploited into strength will determine the performance of the hotels. Considering the resource-based theory addresses the resources and competencies of the firm as underlying factor of performance, it is deemed as a suitable theory to be used in this study.

Both of the aforementioned theories are crucial in developing the proposed model. The resource-based theory emphasizes that the exploitation of intangible assets will develop strategic competitive advantage and hence provides superior returns. When an organisation is able to sustain and perform well, they can protect the welfare of their employees, provide more job opportunities, and give back to the community, that is protecting the interest of their stakeholders. When the interests of all the stakeholders are protected, the organisation is also able to perform better. Therefore, the two theories are inter-related to each other. An organisation needs to employ the resource-based theory in order to exploit their resources efficiently to perform. At the same time, while exploiting their resources to develop sustainable competitive advantage, the organisation cannot disregard their stakeholders' interest, as the stakeholders are also responsible for the performance of their business.

### **Conclusion**

The tourism industry and hotel sectors are vulnerable to hazardous events both in the internal as well as the external environment which cause great fluctuations in tourist arrivals and revenues. The recent pandemic crisis of Covid-19 has not only affected the hotel sector's contribution towards a country's GDP in Malaysia, but also globally. The enhanced sustainable tourism model to be developed is believed to facilitate the hotels in recovering sooner from any crisis and survive better in the industry. Better cooperation and awareness efforts among the policy makers, industry stakeholders and local communities is needed to alleviate the negative impact of hazardous events, allowing the hotels to improve the quality of their operations and sustain their business. Increase in awareness among stakeholders together with enhanced quality services provided will not only help the industry to improve their performance, but it will also help the industry to be well prepared for future disasters.

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