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THE NEW NORMAL LIFESTYLE TECHNOLOGY DEVELOPMENT FOR TOURISM ENTREPRENEURS OF SAMUT SONGKHRAM PROVINCE TO RESOLVE THE COVID19 CRISIS IN THE SHORT AND LONG TERM IN THAILAND

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Abstract: The purposes of this research were: 1. to study the influence of community, government, and educational institutions' support towards the reskilling and upskilling of personnel and the new normal lifestyle technology development of tourism entrepreneurs in Samut Songkhram Province and 2. to study the influence of the new normal lifestyle technology development on the potential of tourism entrepreneurs in Samut Songkhram Province in resolving the COVID-19 crisis in the short and long term.The research instruments, interview forms and questionnaires, were used to collect data which were then analyzed using the Structural Equation Modeling (SEM) to find the cause-and-effect relationships found in the new normal lifestyle technology development of the tourism entrepreneurs in Samut Songkhram Province. The results found that factors such as support from the community, government agencies, and educational institutions had a 0.83 positive direct influence on the new normal lifestyle technology development of tourism entrepreneurs in Samut Songkhram Province at the statistical significance at 0.01 level. The support from the community, government agencies, and educational institutions was also found to have a 0.97 positive direct influence on the reskilling and upskilling of personnel of the tourism entrepreneurs in Samut Songkhram Province. The new normal lifestyle technology development was found having a 0.28 positive direct influence on the potential of tourism entrepreneurs in Samut Songkhram province in resolving the COVID-19 crisis at a statistically significant level of 0.01.

Key words: The new normal lifestyle technology development for tourism entrepreneurs, Personnel Reskilling and Upskilling, Community, Government, and Educational Institutions Support on the Tourism sector

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INTRODUCTION

The coronavirus disease 2019 (COVID-19) pandemic, which spreads continuously across the globe due to the virus's highly transmissable capability and the lack of antiviral drugs, has resulted in a high rate of mortality. Consequently, governments of each country need to take measures to deal with the COVID-19 virus. Countries with good COVID-19 management strategies, which have a low rate of infection and deaths, have strict implementations of policies such as national lockdown and state quarantine, along with the use of information technology to coordinate communication to the public about the government's health policies during the COVID-19 crisis (Afroz et al., 2022). According to the literature review, the strict implementation of government policies was found to have a negative impact on the domestic economy especially in tourism and its related industries. During the COVID-19 pandemic, the numbers of foreign tourists visiting Thailand in the first quarter of 2020 decreased by 38.01% when compared with the same period in 2019, with the largest group of tourists, 3.73 million people, coming from East Asian countries. As for domestic visitors, the number of Thai tourists traveling domestically also decreased by 30.77% when compared with the same period of the previous year. As a result, the spending value of Thai visitors traveling domestically in the first quarter of 2020 also dropped 31.53%. Nonetheless, Bangkok still remained the number one destination for Thai tourists, followed by the North and the West, respectively. However, Thai tourists were found to spend most in Bangkok, the South, and the North, respectively (Thitthongkam and Walsh, 2011). As a result of this impact, there has been a campaign from the government to carry out "the new normal" lifestyle, in which the Thai tourism industry must adjust itself to operate business accordingly with such a change in social context. This is because the impacts of the COVID-19 crisis may last 1-2 years and cause a "domino effect", leading to the consequential disruption of related industries, such as the hospitality sector, airline business, etc.

Therefore, the tourism industry needs to adjust itself to embrace new policies such as employees working from home to promote social distancing, as well as the use of technology or applications which has since played an important role in business operations by helping to reduce costs and impacts from the country's lockdowns and preventing business disruption. It is also necessary for the tourism industry to apply technology that is suitable for the current context including hardware and software, as well as ensuring that "peopleware" is always ready. Location-based service technology which can be connected via smartphones and tablets of both consumers and employees is especially useful in business operations. It allows work-from-home and video conferences, as well as helping to increase awareness and disseminate information to consumers. If a business can manage such technology in accordance with the new normal

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lifestyle, it will be able to create a competitive edge and promote a sustainable tourism business in the long run. The aforementioned reasons inspired the researcher to explore development of the new normal lifestyle technology by tourism entrepreneurs in Samut Songkhram Province during the COVID-19 crisis. This includes the use of technology in place of human workers, reskilling and upskilling human resources in the tourism business, as well as the support of the community, government, and educational institutions. This is to ensure that tourism entrepreneurs in Samut Songkhram Province have sufficient self-potential in terms of knowledge, staff, and basic infrastructure required for research and innovation to support the COVID-19 crisis management and post-crisis recovery.

LITERATURE REVIEW

The new normal lifestyle technology development for tourism entrepreneurs that impacts the potential of tourism entrepreneurs in the COVID-19 crisis

As the world faces an unprecedented global health, economic, and social emergency as a result of the COVID-19 outbreak (El-Said and Aziz, 2022) the travel and tourism industry is among the sectors impacted by the pandemic. While air travel is most affected, many tourism businesses and hotels are also closed down, and travelling is restricted in almost every country around the globe (Surya et al., 2022). Such impacts urge those in hospitality businesses, as well as policy makers and researchers, to begin studying how to tackle the problem with technology (Johnson, 2022). As the current pandemic has brought unprecedented changes and the end of such crisis is unforeseeable, it is a new challenge for the tourism industry (Fontanari and Traskevich, 2022). In addition, today's digital technology also influences changes in consumer behavior which includes how they search for information before making travel decisions, as well as how they access and experience tourism-related content (Stolyarova et al., 2021). Therefore, a definition of technology development for this pandemic situation is a development of scientific knowledge to help resolve issues in tourism operations by leveraging computers and machines to mimic the problem-resolving and decision-making abilities of the human mind. The examples include the use of automated suggestions, forecasting for advance planning, and intelligent translation systems, all of which are designed to be consistent with and respond to tourists' new normal lifestyle (Refaat and Arafa, 2022). A literature review was conducted on the new normal lifestyle technology development affecting the potential of tourism entrepreneurs to resolve the crisis from research and academic articles both domestically and internationally. A study by (Strielkowski et al., 2021); regard new technologies used in COVID-19 for business survival: Insights from the hotel sector in China explained that while several countries were under lockdown and controlled with strict travel measures, arficial intelligence (AI) technology played an important role in the tourism industry. For example, Big Data is useful for forecasting the demand for tourism as it can provide real-time forecast. This tourism traffic volume forecasting is an important process that affects tourism planning and development, and could maximize revenue and optimize related processes, such as procurement of relevant supplies, flights, and hotels through better decision making and enhanced analytics.

This is consistent with a study (Fernández et al., 2022) which explored the use of automated tourist recommendation information systems on Internet of Things (IoT) technologies during the COVID-19 pandemic. They explained that the tourism industry has been greatly affected as tourist activites are required to adhere to the social-distancing policy enforced by each country's government. The IoT has then played an important role in supporting the process of providing relevant information on tourist attractions, accommodation, and transportation in lockdown situations where people are required to stay at home, yet there is still a desire to travel. The IoT technologies, which connect Big Data with mobile phones or various types of electronic devices, can effectively satisfy the need for information regarding hotels, accommodation, and tourist attractions, while still ensuring social distancing as the travelers are not required to meet in-person with travel agents. In addition to helping reduce the risk of contracting COVID-19, the automated recommendation systems using IoT technologies also allow customers to engage with tourism-related transactions at all hours. This is in line with another study (Musselwhite et al., 2021) which explored the use of IoT technologies in providing advice and surveillence for COVID-19 high-risk conditions. For instance, a notification and status report is sent to travelers when their body temperature is 38 degrees or more. The automated alert system is linked between the body temperature sensors on the phone and a central database to alert other travelers of the risk so they can decide whether they want to avoid approaching such high-risk areas. This can greatly satisfy customers as well as ensuring the safety of tourist attractions.

Support of communities, government agencies, and educational institutions towards the tourism sector in the time of COVID-19

In the literature review, the (Beh and Lin, 2021) mentioned the use of technology to drive the tourism sector in Central Asia during the COVID-19 pandemic to ensure safe travel. Tourism is noted to be currently facing its worst crisis as the ongoing coronavirus (COVID-19) pandemic is affecting travel and tourism industry worldwide. According to the World Travel and Tourism Council, the tourism sector declined from a contribution of 10.4% of Global GDP in 2019 to only 5.5% in 2020, while approximately 62 million workers were unemployed and 120 million were also at risk of unemployment. This led to a weak economy and the greatest risk that small companies will go out of business. Therefore, the government needs to provide adequate support to the private sector to enable adoption of new technologies such as virtual travelling, the IoT, AI, and cloud computing. Such digital adoption can increase the potential and efficiency of private enterprises, not only for improving daily operations but also for the creation of unique experiences for the tourists. There is also support for social media marketing and communication campaigns to promote a wide range of tourism deals using technology as a medium, enabling the private sector to introduce innovative itinerary planning, as well as new routes and experiences for both domestic and international tourists. However, the government must play an active role in

promoting the adoption of technology through policy interventions, starting with policies to support the recovery of the tourism industry through a combination of private sector incentives, such as tax subsidies and funding, and skill development of tourism personnel. They should also help increase tourists' confidence and willingness to travel. One way is to create an environment that is conducive to the transformation of major attractions, making them into "smart" destinations through modernization and upgrading of technological infrastructure. Allocation of massive funding to improve ICT infrastructure in key tourist destinations is also of great importance. Furthermore, the government has to come up with policies that protect tourists from infection by providing contactless and digital payment options, and there should also be a technological means for vaccine passports and mapping the spread of the coronavirus.

Personnel reskilling and upskilling that impact the potential of tourism entrepreneurs

The literature review found that (Huang et al., 2021); have explored soft skill development of personnel in the tourism industry with the aim of studying the need to build and develop the necessary and desired skills of tourism personnel. Examples include building and developing skills in verbal communication, speaking, teamwork, self-motivation, etc. for personnel to become more competent and able to meet the needs of today's tourists. The study found that these soft skills heavily influence decision making and the purchase of travel products and services, all of which have a significant impact on travel agency sales and profits. The upskilling and reskilling can be achieved by providing training workshops for personnel at all levels as well as adding positive motivation for employees. This corresponds to a study of (Pahuja, 2022) which investigated the perceived importance of soft skills among tourism personnel. It was found that communication skills and customer demand management via social media had an impact on the satisfaction and purchasing decisions of travelers. In addition, knowledge and skills in information technology usage were also found to affect collection and storage of data necessary for business planning. This corresponds to a study by (Cabral and Dhar, 2019); which analyzed the skills development of tourism personnel in India. The results revealed that the skills in the application of communication technology were necessary to develop and upgrade tourism personnel amidst the current dramatic changes in business environments, both internally and externally, from issues such as the COVID-19 pandemic, changing technology conditions, globalization, and changing behavior of tourists.

MATERIALS AND METHODS

This research "The New Normal Lifestyle Technology Development for Tourism Entrepreneur of Samut Songkhram Province to Resolve the COVID-19 Crisis in the Short and Long Term in Thailand" is a mixed-method study. The qualitative research part was conducted with tourism entrepreneurs who were involved in the new normal lifestyle technology development in Samut Songkhram Province, while the quantitative research part (Creswell, 2009); was conducted with tourism start-ups and social enterprises in Samut Songkhram Province. The research purposes are: (1) to study the influence of community, government, and educational institutions' support towards the reskilling and upskilling of personnel and the new normal lifestyle technology development of tourism entrepreneurs in Samut Songkhram Province, (2) to study the influence of the new normal lifestyle technology development on the potential of tourism entrepreneurs in Samut Songkhram Province in resolving the COVID-19 crisis, (3) to develop the new normal lifestyle technology for tourism entrepreneurs in Samut Songkhram Province for resolving the COVID-19 crisis in the short and long term. The research procedures are as follows.

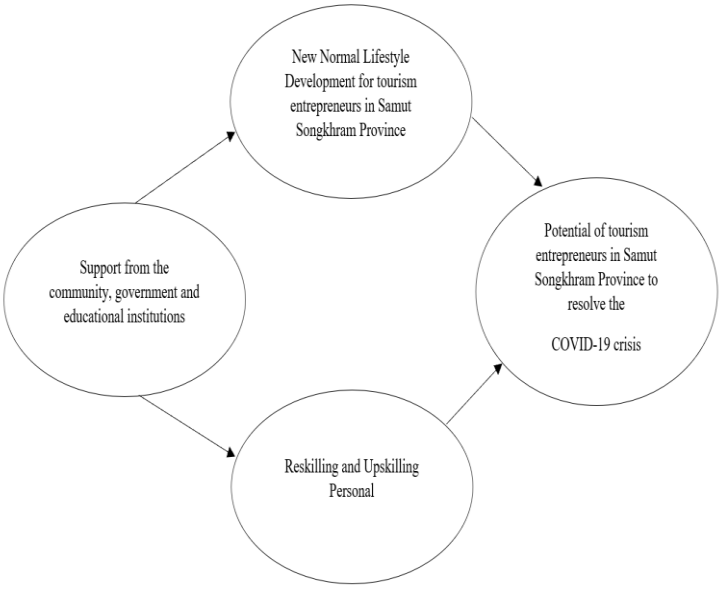

Figure 1. Research Conceptual Framework

Determination of population and sample

The population in this study consisted of 210 tourism start-ups and social enterprises in Samut Songkhram Province (Jariyachamsit et al., 2020); and the following concepts were explored; (1) the use of technology in place of human workers, (2) personnel reskilling and upskilling in tourism businesses, and (3) support of community, government agencies, and educational institutions to develop the new normal lifestyle technology for tourism entrepreneurs in Samut Songkhram Province to resolve the COVID-19 crisis in the short and long term. The sample group was selected using cluster random sampling, which researcher random sampling from a scattered population, causing difficulty in framing the population, or a population where groupings are naturally formed geographically (Ribeiro et al., 2018). The overall characteristic of each cluster is being generally homogenous, yet there are differences or diversity in its entirety, in order to reduce the error in population's parameter estimation. After using this probability sampling, the sample size from a definite population was determined by using formula calculation (Yamane, 1973: 1088) at 95 % confidence level (Z = 1.96). 210 samples were obtained.

Research instruments

The research instruments were interview forms and questionnaires. The researcher started with reviewing related literature, concepts, and theories to define a practical definition and determine the structure of the variables to be studied. A questionnaire was then created based on the practical definition and developed measuring tools and questions that have been tried and adjusted to suit the research. The questionnaire was then submitted to 5 experts in innovation and technology affecting the potential of tourism entreprenuers in Samut Songkhram Province. The experts were to evaluate the content of the questionnaire, including the aspects of content validity, questionnaire comprehensiveness, appropriateness, and linguistic clarity. The content validity analysis of the entire questionnaire was found to range from 70% or higher, or with the IOCs between 0.70–1.00. Based on the criteria used to determine content validity, the calculated IOC must be greater than or equal to 0.50 (IOC ≥ 0.50) in order to indicate that all items in the questionnaire are appropriate while also having content validity and being consistent with the research objectives, expressed using clear language, and adequately comprehensive to cover the studying issues. As for the reliability of the question items, it was found that the questions were adequately reliable to be used in the study as they met the specified criteria by having calculated confidence value greater than 0.70.

Table 1. Numbers of population and samples (Vithayaporn, 2021)

Tourism start-ups and social enterprises in Samut Songkhram Province	Number of populations	Number of samples	Percentage
1. Muang District	153	74	35.32
2. Amphawa District	213	102	49.18
3. Bang Khon Tee District	71	34	16.39
Total	437	210	100

Data Collection

Both qualitative and quantitative data were collected in this research as follows:

Qualitative data; Three executives involved in the new normal lifestyle technology development in Samut Songkhram Province were interviewed. This included (1) Director of Tourism and Sports Samut Songkhram Province, (2) President of the Federation of Thai SMEs in Samut Songkhram Province, and (3) Manager of IRD SSRU Learning Center, Suan Sunandha Rajabhat University, Ban Saraphi, Chom Pluak Subdistrict, Bang Khonthi District, Samut Songkhram Province. This qualitative research part of the study used in-depth interviews to explore the elements of (1) the use of technology in place of human workers, (2) reskilling and upskilling human resources in tourism business, and (3) the support of the community, government, and educational institutions to ensure that tourism entrepreneurs are supported through crisis management and post-crisis recovery from COVID-19 in short-and long-term adaptation. The participants were chosen using purposive sampling (Tongco, 2007), a sampling technique in which samples are selected according to the principles or reasoning in relation to the research problems or research objectives. The key informants selected were executives who were involved in the development of the new normal lifestyle technology in Samut Songkhram Province. Quantitative data; Data were collected using the survey research method. The questionnaire used was structured from the interview form used in the qualitative research part. This quantitative part of the study was conducted with 210 tourism start-ups and social enterprises in Samut Songkhram Province. The measurements used were based on a work of Uğur and Akbıyık (2020) and included (1) the use of Artificial Intelligence (AI) technology in place of human workers, (2) the use of Big Data for planning, and (3) the use of an intelligent translation system to create applications in foreign languages to support foreign tourists. Respondents were asked to rate their answers using the Five-point Likert-type Scale Ranging. The 5 levels included (5) for totally agree (4) for mostly agree, (3) for moderately agree, (2) for slightly agree, and (1) for least agree. Measuring of the new normal lifestyle technology development was done using 15 multi-item scale questions. An example of the questions is "Do you think your business uses Big Data planning technology to develop more advanced working techniques?"

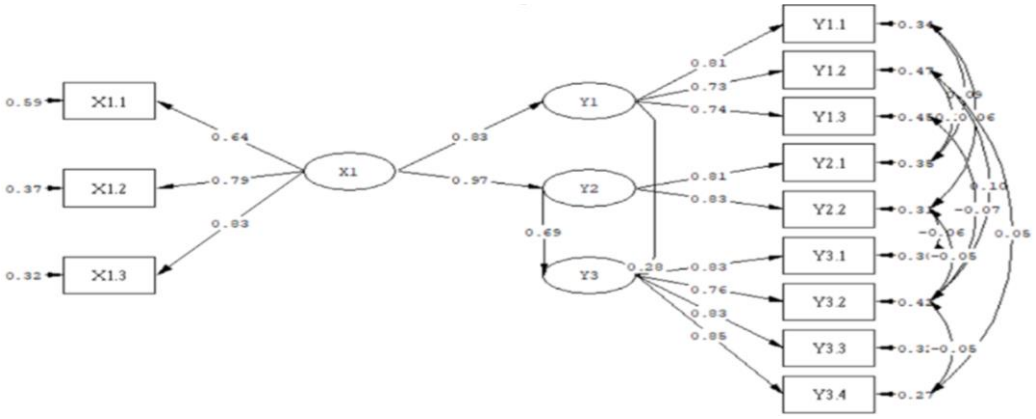

Figure 2. Variable influence analysis results in the causal model of the new normal lifestyle technology development for tourism entrepreneurs in Samut Songkhram Province for resolving the COVID-19 crisis in the short and long term before adjusting the model

Data analysis

The aforementioned data were used to analyze the Structural Equation Modeling (SEM) in order to find cause-and-effect relationships in the new normal lifestyle technology development for tourism entrepreneurs in Samut Songkhram Province.

Theories and research on related variables were used to develop a research conceptual framework and to create a model of research related with empirical data, using the software LISREL for Windows version 11. Assessment of model fit between the model and the empirical data was done by using indices such as Chi-Square, χ^2/ df, CFI, GFI, AGFI, RMSEA, and SRMR.

RESULTS AND DISCUSSION

Structural Equation Modeling (SEM) was analyzed to find cause-and-effect relationships in the new normal lifestyle technology development for tourism entrepreneurs in Samut Songkhram Province. The analysis results after adjusting the model of the fit indices on the overall model fit are shown as follows:

Table 2. Overall model fit index analysis after adjusting the model

Fit index	Criteria	Measured index value	Interpretation
χ^2 /df (0.37/1)	< 2.00	0.37	Pass
CFI	≥ 0.95	1.00	Pass
GFI	≥ 0.95	1.00	Pass
AGFI	≥ 0.90	0.99	Pass
RMSEA	< 0.05	0.000	Pass
SRMR	< 0.05	0.008	Pass

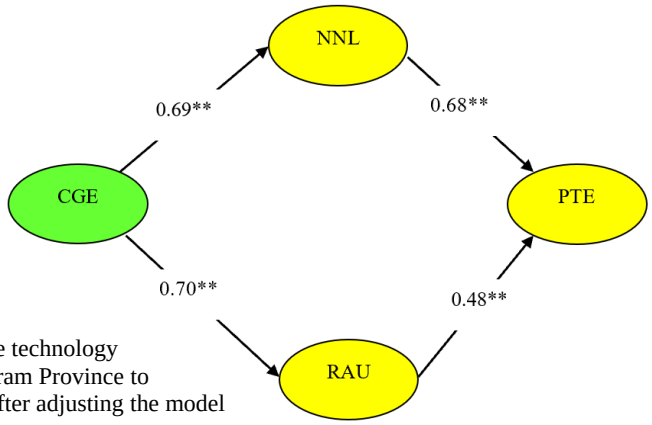

Figure 3. The cause and effect of the new normal lifestyle technology development for tourism entrepreneurs in Samut Songkhram Province to resolve the COVID-19 crisis in the short and long term after adjusting the model

When considering fit indices of the model, it was found that the model is fit with the empirical data with all 6 fit indices showing passing results for the accepted criteria. The values of the indices were χ^2 /df = 0.37, CFI = 1.00, GFI = 1.00, AGFI = 0.99, RMSEA = 0.000, and SRMR = 0.008. Therefore, it can be concluded that the SEM is fit and suitable with the empirical data.

Analysis results: Hypothesis testing

These are results of the research hypothesis testing on the cause-and-effect factors of the new normal lifestyle technology development for tourism entrepreneurs in Samut Songkhram Province for resolving the COVID-19 crisis in the short and long term. From the research question "Does the support of the community, the government, and educational institutions have an influence on the new lifestyle technology development for tourism entrepreneurs in Samut Songkhram Province?", hypotheses were formulated to answer this question as follows:

Hypothesis 1: Support of the community, the government, and educational institutions has an influence on the new lifestyle technology development for tourism entrepreneurs in Samut Songkhram Province. The hypothesis testing revealed that the support of the community, the government, and educational institutions (X1) has a positive direct influence on the new normal lifestyle technology development of tourism entrepreneurs in Samut Songkhram Province (Y1) at a statistically significant level of 0.01. The new normal lifestyle technology development of tourism entrepreneurs in Samut Songkhram Province (Y1) was influenced by the support of the community, the government, and educational institutions (X1) at 0.69, all of which were direct positive influences.

Hypothesis 2: Support of the community, the government, and educational institutions has an influence on personnel reskilling and upskilling of tourism entrepreneurs in Samut Songkhram Province. The hypothesis testing revealed that the support of the community, the government, and educational institutions (X1) has an influence on personnel reskilling and upskilling of tourism entrepreneurs in Samut Songkhram Province (Y2) at a statistically significant level of 0.01. The reskilling and upskilling of tourism entrepreneurs in Samut Songkhram Province (Y2) was influenced by the support of the community, the government, and educational institutions (X1) at 0.70, all of which were direct positive influences. As for the research question "How much does the new normal lifestyle technology development affect the potential of tourism entntreneurs in Samut Songkhram Province in resolving the COVID-19 crisis?", hypotheses were formulated to answer as follows:

Hypothesis 3: Personnel reskilling and upskilling have a direct influence on the potential of tourism entrepreneurs in Samut Songkhram Province in resolving the COVID-19 crisis. The hypothesis testing results revealed that personnel reskilling and upskilling (Y2) had a positive direct influence on the potential of tourism entrepreneurs in Samut Songkhram Province in resolving the COVID- 19 crisis (Y3) at a statistically significant level of 0.01. The potential of tourism entrepreneurs in Samut Songkhram Province in resolving the COVID- 19 crisis (Y3) was influenced by personnel reskilling and upskilling (Y2) at 0.48, all of which were direct positive influences.

Hypothesis 4: The new normal lifestyle technology development has a direct influence on the potential of tourism entrepreneurs in Samut Songkhram Province in resolving the COVID-19 crisis. The hypothesis testing revealed that the new normal lifestyle technology development had a positive direct influence on the potential of tourism entrepreneurs in Samut Songkhram Province in resolving the COVID-19 crisis (Y3) at a statistical significant level of 0.01. The potential of tourism entrepreneurs in Samut Songkhram Province for resolving the COVID-19 crisis (Y3) was influenced by the new normal lifestyle technology development (Y1) at 0.68, all of which were positive influences.

CONCLUSION

The results of the analysis revealed that the support of community, government agencies, and educational institutions (X1**)** had a 0.69 positive direct influence on the new normal lifestyle technology development of tourism entrepreneurs in Samut Songkhram Province at the statistical significance of 0.01 level. Therefore, the government should have a policy to support or improve high speed internet networks to cover tourist destinations all over Samut Songkhram province. They should also encourage a connection between the public and tourism entrepreneurs' private databases in order to ensure a better travelling standard and to speed up business operations. In addition, tourists should be encoraged to use information technology for accommodation and travelling management, including technologies such as computerized seat reservation systems (CRS), billing systems, receipt systems, security systems, modern telephone service, in-room entertainment, and in-room internet services, as it will help increase the efficiency of business management as well. Furthermore, it was found that the support of the community, government agencies, and educational institutions (X1) had a 0.70 positive direct influence on personnel reskilling and upskilling of tourism entrepreneurs in Samut Songkhram Province at the statistical significance of 0.01 level. Therefore, the government should help resolve the labor shortage in the tourism industry by increasing IT skills to compensate the need of more personnel, which may also help to effectively reduce business costs. This corresponds to (Benaraba et al., 2022); who explored the OECD Tourism Trends and Policies of 2020. It was explained that in Egypt a tourism reform program was launched in 2018 with the aim of developing sustainable tourism. The use of technology has since played a key role in reforming the infrastructure in order to strengthen the competitiveness of all tourism-related sectors and to comply with international standards. For instance, the use of technology in institutional and legal reforms, marketing and promotion infrastructure, basic infrastructure development, as well as in driving attempts to meet the need of market demand in tourism digital economy.

The (Ihsan et al., 2022); has described the use of technology to drive the tourism sector and to promote safety in travelling in Central Asia amidst the COVID-19 situation. It was noted that the tourism industry is facing the worst crisis as the ongoing coronavirus (COVID-19) pandemic is affecting the global travel. According to the World Travel and Tourism Council, the tourism sector declined from a contribution of 10.4% of Global GDP in 2019 to only 5.5% in 2020, while approximately 62 million workers were unemployed and 120 million were also at risk of unemployment. This led to a weak economy and the greatest risk that small companies will go out of business. Therefore, the government needs to provide adequate support to the private sector to enable adoption of new technologies such as virtual travelling, the IoT, AI, and cloud computing. Such digital adoption can increase the potential and efficiency of private enterprises, not only for improving daily operations but also for the creation of unique experiences for the tourists. There is also support for social media marketing and communication campaigns to promote a wide range of tourism deals using technology as a medium, enabling the private sector to introduce innovative itinerary planning, as well as new routes and experiences for both domestic and international tourists. However, the government must play an active role in promoting the adoption of technology through policy interventions, starting with policies to support the recovery of the tourism industry through a combination of private sector incentives, such as tax subsidies and funding, and skill development of tourism personnel. They should also help increase tourists' confidence and willingness to travel. It was also found that the new normal lifestyle technology development (Y1**)** had a 0.68 significant positive direct influence on the potential of tourism entrepreneurs in Samut Songkhram Province in resolving the COVID-19 crisis (Y3) at statistical significance level of 0.01. Therefore, businesses should use Big Data to help increase the efficiency of business planning concerning travel information, check-in, country of origin, travelling period, and popular tourist destinations, in order to better meet the needs of tourists. Additionally, artificial intelligence (AI) technology should be used to facilitate tourists in searching and booking accommodation and transportation online. This offers greater convenience for tourists as they no longer need to visit travel agency offices. It was found that personnel resklling and upskilling (Y2**)** had a 0.48 significant positive direct influence on the potential of tourism entrepreneurs in Samut Songkhram Province to resolve the COVID-19 crisis (Y3) at statistical significance level of 0.01.

Therefore, entrepreneurs should focus on promoting basic training of business personnel including languages, communication, IT, and services through online channels which can increase operational efficiency and motivate the business to improve their labor standards for sustainable growth in the future. This is in line with a study (Strielkowski et al., 2021); which explored the use of automated tourist recommendation information systems on Internet of Things (IoT) technologies during the continuous requirement of social-distancing amidst the COVID-19 pandemic. It was explained that the tourism industry has been greatly affected as tourist activites are required to adhere to the social-distancing policy enforced by each country's government. The IoT has then played an important role in supporting the process of providing relevant information on tourist attractions, accommodation, and transportation in lockdown situations where people are required to stay at home, yet there is still a desire to travel. The IoT technologies, which connect Big Data with mobile phones or various types of electronic devices, can effectively satisfy the need for information regarding hotels, accommodation, and tourist attractions, while still ensuring social distancing as the travelers are not required to meet in-person with travel agents. In addition to helping reduce the risk of contracting COVID-19, the automated recommendation systems using IoT technologies also allow customers to engage with tourism-related transactions at all hours. This is consistent with another study (Fernández et al., 2022); which explored the use of IoT technologies in providing advice and surveillance for COVID-19 high-risk conditions. For instance, a notification and status report is sent to travellers when their body temperature is 38 degrees or more. The automated alert system is linked between the body temperature sensors on the phone and a central database to alert other travellers of the risk so they can decide whether they want to avoid approaching such high-risk areas. This can greatly satisfy customers as well as ensuring the safety of tourist attractions.

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REFERENCES

Afroz, F., HASSAN, K., & Ferdaus, J. (2022). impacts of Covid-19 on travel behavior of the people in Bangladesh. *GeoJournal of Tourism and Geosites*, 40(1), 56-63. https://doi.org/10.30892/gtg.40106-802

Benaraba, C.M.D., Bulaon, N.J.B., Escosio, S.M.D., Narvaez, A.H.G., Suinan, A.N.A., & Roma, M.N. (2022). A comparative analysis on the career perceptions of tourism management students before and during the COVID-19 pandemic. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 30, 100361. https://doi.org/10.1016/j.jhlste.2021.100361

Beh, L.S., & Lin, W.L. (2021). Impact of COVID-19 on ASEAN tourism industry. *Journal of Asian Public Policy*, 1-21. https://doi.org/10.1080/17516234.2020.1871180

Cabral, C., & Dhar, R.L. (2019). Skill development research in India: a systematic literature review and future research agenda. Benchmarking. *An International Journal*. https://doi.org/10.1108/BIJ-07-2018-0211

Creswell, J.W. (2009). Mapping the field of mixed methods research. *Journal of mixed methods research*, 3(2), 95-108, https://doi.org/10.1177/1558689808330883

El-Said, O., & Aziz, H. (2022). Virtual tours a means to an end: An analysis of virtual tours' role in tourism recovery post COVID-19. *Journal of Travel Research*, 61(3), 528-548. https://doi.org/10.1177/0047287521997567

Fernández, J.A.S., Martínez, J.M.G., & Martín, J.M.M. (2022). An analysis of the competitiveness of the tourism industry in a context of economic recovery following the COVID19 pandemic. *Technological Forecasting and Social Change*, 174, 121301. https://doi.org/10.1016/j.techfore.2021.121301

Fontanari, M., & Traskevich, A. (2022). Smart-Solutions for Handling Over tourism and Developing Destination Resilience for the Post-Covid-19 Era. *Tourism Planning & Development*, 1-22. https://doi.org/10.1080/21568316.2022.2056234

Huang, A.Y., Fisher, T., Ding, H., & Guo, Z. (2021). A network analysis of cross-occupational skill transferability for the hospitality industry. *International Journal of Contemporary Hospitality Management*. https://doi.org/10.1108/IJCHM-01-2021-0073

Ihsan, Y.N., Purba, N.P., Faizal, I., Anya, A., Mulyani, P.G., & Anwar, S.K. (2022). Impact of the Pandemic Covid-19 to the Indonesia seas. *GeoJournal of Tourism and Geosites*, 40(1), 30-36. https://doi.org/10.30892/gtg.40103-799

Jariyachamsit, S., Jannit, J., & Praditpong, P. (2020). *Factors influencing travel decision on cultural tourism of Thai tourists, travelling to Samut Songkhram province*. International Academic Multidisciplinary Research Conference in Cape Town 2020, 16-21. https://doi.org/10.37227/ITHJ-2021-03-247

Johnson, A.G. (2022). Why are smart destinations not all technology-oriented? Examining the development of smart tourism initiatives based on path dependence. *Current Issues in Tourism*, 1-13. https://doi.org/10.1080/13683500.2022.2053071

Musselwhite, C., Avineri, E., & Susilo, Y. (2021). Restrictions on mobility due to the coronavirus Covid19: Threats and opportunities for transport and health. *Journal of Transport & Health*. https://doi.org/10.1016/j.jth.2021.101042

Pahuja, N. (2022). Partnering with technology firms to train smart city workforces. In Smart Cities Policies and Financing (pp. 169-180). Elsevier. https://doi.org/10.1016/B978-0-12-819130-9.00012-7

Refaat, S.A., & Arafa, H.F. (2022). Investigating the effect of covid-19 global travel restrictions on tourists'travel behavior, habits and intentions "applied study on saudi tourists". *GeoJournal of Tourism and Geosites*, 40(1), 49-55. https://doi.org/10.30892/gtg.40105-801

Ribeiro-Alves, M., & Bastos, F.I. (2018). Assessing respondent-driven sampling: A simulation study across different networks. *Social Networks*, 52, 48-55. https://doi.org/10.1016/j.socnet.2017.05.004

Stolyarova, I.Y., Stolyarov, D.Y., Rossinskaya, M.V., Gordeeva, E.V., & Kamenskaya, L.A. (2021). *Development of Methodology for Identifying the Target Clients of Medical Tourism Using Internet Technologies*. In International Scientific and Practical Conference Operations and Project management: strategies and trends, 429-441, Springer, Cham. https://doi.org/10.1007/978-3-030-94245-8_59

Strielkowski, W., Firsova, I., Lukashenko, I., Raudeliūnienė, J., & Tvaronavičienė, M. (2021). Effective management of energy consumption during the COVID-19 pandemic: The role of ICT solutions. *Energies*, 14(4), 893. https://doi.org/10.3390/en14040893

Surya, B., Hernita, H., Salim, A., Suriani, S., Perwira, I., Yulia, Y., & Yunus, K. (2022). Travel-Business Stagnation and SME Business Turbulence in the Tourism Sector in the Era of the COVID-19 Pandemic. *Sustainability*, 14(4), 2380. https://doi.org/10.3390/su14042380

Tongco, M.D.C. (2007). *Purposive sampling as a tool for informant selection*. http://hdl.handle.net/10125/227

Thitthongkam, T., & Walsh, J. (2011). *An analysis of factors influencing the competitiveness of the Thai tourism industry*. In International Conference on Business and Economics Research, 1, 138-141. https://doi.org/10.1080/0376835X.2016.1179103

Uğur, N.G., & Akbıyık, A. (2020). Impacts of COVID-19 on global tourism industry: A cross-regional comparison. *Tourism management perspectives*, 36, 100744. https://doi.org/10.1016/j.tmp.2020.100744

Vithayaporn, S. (2021). COVID-19 Pandemic–A Testing Time for Tourism and Hospitality in Thailand. *ABAC ODI Journal Vision. Action, Outcome*, 8(1), 41-53. https://doi.org/10.14456/abacodijournal.2021.3

Yamane, T. (1973). *Research Methodology and Sample Size, Florida*. University of Florida, Florida, The United States of America.

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