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Impact of COVID-19 on Pakistan's services sector

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Abstract

Coronavirus disease 2019 (COVID-19) affects the world economies as due to pandemic major economic activities are either suspended or restricted. Pakistan also faces the similar circumstances as implementation of lockdown to avoid spread of COVID-19 halted trading activities. This study focuses on the impact of COVID-19 on services sector of Pakistan and for the purpose various published reports are considered. Sectors including tourism, hospitality and transport are likely to be more affected in services sector. Millions of SMEs may not be able to survive in long term due to lack of cash flow while the revenues of SMEs will also decrease. Lockdown situation will give rise to the vulnerable employment and the layoffs in every province of Pakistan are expected. This paper recommends that entrepreneurial-based programs effectively create jobs, especially by promoting information technology and e-commerce.

Keywords: Pakistan; Covid-19; services sector

Introduction

The outbreak of Coronavirus (COVID-19) has affected every economy of the world due to decrease in global economic activities and travelling restrictions (McKibbin and Fernando, 2020). The virus could affect the global economy through three ways including affecting the production, financial impact on firms and markets and disruption in supply chain and market (Maital and Barzani, 2020). Services sector is also affected due to COVID-19 as businesses are closed and millions of workers are on the verge of facing unemployment. Three out of four 'modes of services delivery' require vicinity among buyers and sellers and these three modes which are Mode 2, 3 and 4 will be affected due to COVID-19 social distancing practices (Shingal, 2020). Even services under Mode 1 will also be affected as these are complementary inputs to industrial and other services which are already under severe crisis. Under these categories tourism, travel, hospitality services and transport services will face extreme affects.

Services sector of Pakistan is the major contributor towards GDP while the sector is also the major source of employment provision (Javed, 2019). According to Economic Survey of Pakistan (2018-19), services sector has shared 61.2% in GDP of

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Pakistan and the growth rate of the sector was 4.71% in 2018-19. The exports of services sector in 2019 were \$ 5781 million (State Bank of Pakistan) whereas the sector absorbs 38.6% of the total labor force (Labor Force Survey, 2017-18).

However, COVID-19 is affecting the economy of Pakistan as World Bank in its latest report indicated that GDP of Pakistan may experience negative growth this year which will also affect the services sector. The virus spread will also increase the poverty and unemployment in the country. The initial estimates indicated the loss of around Rs. 1.3 trillion which include GDP contraction in services sector, tax losses and reduction in remittances and trade². Disruptions in domestic supply chain and closure of non-essential businesses affected the wholesale and retail trade along with storage and communication and transport, which are the major sub-sectors of services sector of Pakistan (World Bank, 2020)³. In this backdrop, the study aims to review the impact of COVID-19 on the services industry of Pakistan as how much loss the industry may observe due to shrinkage in business activities. Furthermore, the study also discusses the impact on employment in the services industry that is on the verge of unemployment. There is lack of studies who examine the implications of COVID-19 for services sector of Pakistan. Hence, this study bridges this gap by covering different aspects of services sector which are getting affected by virus spread.

Previous disease outbreaks also affected the global economy particularly individual and regional economies and literature provides useful information to evaluate the COVID-19 implications. There are many studies including (Haacker, 2004 and Robalino et al. 2002) which have pointed out that population health and economic welfare and growth are positively related.

Ebola outbreak affected the trade, construction, financial services and tourism in Africa particularly the economies of Guinea, Liberia and Sierra Leone are badly affected (Sanda et al, 2015). Mckercher and Chon (2004) reported that SARS outbreak had an estimated global economic cost of \$ 100 billion. Furthermore, Adegun (2014) observed that SARS virus has affected the transport sector in these three African countries through movement restrictions into major cities and across border. Lee and Mckibbin (2004) examines that SARS impacts the global economy through decrease in consumer demand particularly in travel and retail sales services, increase in the expenditures of disease prevention particularly for travel and retail sales services industries and decrease in confidence in the future of affected economies.

Travel and tourism are sensitive to health security and global change which is why pandemics can cause serious harm to the travel and tourism industry (Burkle, 2006). Siu and Wong (2004) point out that the SARS outbreak during 2003 in Hong Kong reduced the travel and tourism due to lack of visits by tourist. Lee and Warner (2005) examines that the hotel industry in Hong Kong was among the hardest hit industry due to SARS virus while transportation and tourism were also affected. However, the economy recovered based on the rising competitiveness due to weakening of US dollar, increase in tourism and exports. Hai et al. (2004) estimate that SARS virus reduced the tourism revenues for China by 50-60%. Bloom et al. (2005)

² Coronavirus: Pakistan may face initial economic loss of Rs. 1.3 tr The News International, 20th March 2020, <https://www.thenews.com.pk/print/631789-coronavirus-pakistan-may-face-initial-economic-loss-of-rs1-3tr>

³ World Bank, <https://www.worldbank.org/en/country/pakistan/overview>

estimated the potential economic impact of a pandemic causing due to mutation of avian influenza strain and found that global trade of goods and services reduced by 14%. Lee and Cho (2016) found that after MERS outbreak, workers aged over 50 are more vulnerable in terms of facing the possibility of involuntary unemployment and underemployment, decrease in working hours and unemployment. The study recommends that medical protection should be provided to the vulnerable group facing disease and economic crunch while the issue of unemployment should be address through protecting the livelihoods in labor market.

As far as COVID-19 literature is concerned McKibbin and Fernando (2020) stated that air transport, sea transport, and land transport will be severely affected. Coates et al. (2020) examined the COVID-19 impact on Australian economy and pointed out that the hospitality sector will be among the sectors which will be hardest hit as this industry is affected by the mandatory shutdowns. UNWTO (2020) has estimated a decrease of 20-30% in international arrivals due to which tourism receipts would face \$300-450 billion losses whereas WTTC (2020) projected loss of around \$ 2.1 trillion. This will also affect the airlines as according to IATA, revenue loss of \$ 252 billion is expected (IATA, 2020). KPMG (2020) reported that job losses of around 38 million are expected in Indian tourism and hospitality industry. Asian Development Bank (2020) pointed out in their brief that China and other developing Asian economies will be slowed down due to COVID-19 through various ways including decrease in tourism and business travel, reduction in domestic demand and trade and production.

ILO (2020) pointed out the strategies taken by countries to mitigate affects of COVID-19 on tourism sector, such as Republic of Korea designated status of special employment support sector to tourism while Singapore assisted those hotels who provided accommodation to infected patients. Moghadam et al. (2015) suggested that the spread of pandemics such as Ebola can be minimized through strict health care measures which can prevent the transmission risk. The usage of personal protective equipment is vital for both patients and health care workers in this regard. Jacobs (2007) emphasizes that proper policies and procedures should be followed to implement the quarantine strategies while the authorities should also consult the public health authorities. Paquin (2007) pointed out that the travel advisories should be based on updated data otherwise it could result not only in the spread of pandemic but also put additional economic burden. Kapiriri and Ross (2018) states that during the pandemic most vulnerable groups are minority and marginalize community and the governments and organizations should assist them accordingly.

Employment crisis in the services sector of Pakistan can be overcome through adopting effective measures as the study of PIDE (2020) recommends that work from home is a viable option to tackle the employment crisis especially the sectors including craft and retail trade, clerical support and service and sales have higher potential where the work from home capability can be enhanced. The ecommerce sector of Pakistan can play a significant role in overcoming the employment crisis as the digital sales has increased during COVID-19 globally. Besides, startups in entertainment, infotech and fintech can not only boost the trading activities but also generate employment prospects (Javed, 2020). Government can provide support to laid off

workers in order to bring them into the economic circle once the crisis situation is over, similarly liquidity support for businesses will assist them to remain operational and maintain their links with global value chains (ICMA, 2020).

Research Method

The study used the descriptive analysis for examining the impact of corona virus on services sector of Pakistan. Initially empirical literature is cited to present the impact of pandemic spread on the economy and employment. Studies on pandemics including SARS, Ebola and COVID-19 are included in this regard. Secondly, a comprehensive desk review was conducted to extract data regarding the quantitative impact of COVID-19 on services sector of Pakistan.

Impact on Services Sector

The section reviews the impact of COVID-19 on the services sector of Pakistan. For the purpose existing research studies are reviewed which estimated the potential losses due to virus spread. Estimated losses for services sector under different scenarios are presented from the published reports which also included the impact on SMEs operating in services sector and the employment getting affected in the sector. Estimated impacts on tourism are calculated based on the assumptions provided by Asian Development Bank.

Different studies estimated the likely impact of corona virus on Pakistan economy through applying different assumptions. ADB estimated the loss for services sector under worse and best case scenario based upon which transport services will face estimated loss of \$ 565.6 million under worst case scenario while in best case scenario this loss will be \$ 0.92 million (Table 1). Hotels and restaurants will face loss of \$ 253.7 million under worse-case scenario and it is reported that around 90% of rooms in Pakistan's hotels have no booking which is major cause of revenue losses for the industry⁴. Whereas wedding receptions, seminars, events and conferences are also being canceled or postponed which are affecting the revenue flow for hotels and restaurants (Javed, 2020). Transport services will also slowdown and the estimated loss will be \$ 253.7 million under worse-case scenario. The traders pointed out that goods transportation activities have decreased by 80 percent due to lockdown, furthermore the drivers are facing difficulties because of non-availability of food and workshop facilities⁵.

Services sector in other South Asian countries are also affected as lockdown situation in Bangladesh affected 9 million transport workers who have no income since

⁴ *Hotel industry demands relief package Express Tribune, Mar 21st 2020, <https://tribune.com.pk/story/2180533/2-hotel-industry-demands-relief-package/>*

⁵ *Truckers face lockdown hurdles in keeping supply chains intact, The News International, Mar 31st 2020, https://www.thenews.com.pk/print/637084-truckers-face-lockdown-hurdles-in-keeping-supply-chains-intact?_ga=2.122516363.1216249070.1588664903-2119142190.1561973571*

the imposition of lockdown⁶. At the end of April 2020, services sector in India has fallen to historic low level due to which layoffs and deep recession is expected⁷.

Table 1. Estimated Loss for Pakistan’s services sector under different scenarios

Worse-case scenario	Estimated loss	Best-case scenario	Estimated loss
Business trade, personal and public services	\$ 1.94 billion	Business trade, personal and public services	\$ 5.54 million
Transport services	\$ 565.6 million	Transport services	\$ 0.92 million
Hotels and restaurants	\$ 253.7 million	Hotels and restaurants	\$ 0.67 million
Total	\$ 5 billion	Total	\$ 16.23 million

Source: Asian Development Bank (ADB)

Table 2. Estimated impact on tourism receipts (\$ Million)

Shorter containment, smaller demand shocks	Longer containment, larger demand shocks
163.6 \$ million (Inbound tourism to outbreak-affected economies falls by 80% for 3 months)	327.2 \$ million (Inbound tourism to outbreak-affected economies falls by 80% for 6 months)

Source: Author’s calculations based on Asian Development Bank’s assumptions

According to World Bank data, international tourism receipts for Pakistan during 2018 were \$ 818 based on which it is estimated that the tourism sector of Pakistan will face decrease of \$ 163.6 million if the COVID-19 situation and traveling restrictions prevailed for three months while this loss of revenue will increase to \$ 372.2 million if the situation will prevail for six months (Table 2). Besides, tourism sector is also at risk of losing 75,000 direct jobs in tourism-dependent areas which includes jobs related to tour operators, tour guides, drivers, hotel staff and travel agents⁸. Tourism in Pakistan was just started to develop based on positive measures from the government while earlier this year international agencies including British Backpackers Society also regarded Pakistan as third most potential adventure destination for 2020⁹. Conde Nast Traveller’s Magazine also mentioned that Pakistan would be among top destination for adventure tourism in 2020¹⁰. however due to COVID-19 and traveling restrictions Pakistan will not be able to achieve the potential gains.

⁶ ‘COVID-19: Lockdown leaves millions jobless, helpless in Bangladesh’ AA.com, Apr 9th 2020, <https://www.aa.com.tr/en/asia-pacific/covid-19-lockdown-leaves-millions-jobless-helpless-in-bangladesh/1798786>

⁷ ‘India’s service activity sinks at historic rate in April, PMI at 5.4’ The Economic Times, May 6th 2020, <https://economictimes.indiatimes.com/news/economy/indicators/indias-services-activity-collapses-as-coronavirus-paralyses-global-economy-pmi/articleshow/75569286.cms>

⁸ ‘Can tourism industry be saved’ Business Recorder, Apr 20th 2020, <https://www.brecorder.com/2020/04/20/590657/can-tourism-industry-be-saved/>

⁹ ‘Pakistan declared world’s third highest potential adventure destination for 2020’ in Gulf News, Dec 29th 2019 <https://gulfnews.com/world/asia/pakistan/pakistan-declared-worlds-third-highest-potential-adventure-destination-for-2020-1.68714974>

¹⁰ ‘Pakistan tops Conde Nast Traveller’s list of best 2020 holiday destinations’ in The Dawn News Dec 16th 2019 <https://images.dawn.com/news/1184213>

Temporary state aid is required by European Tourism Manifesto Alliance from the national governments in order to protect the tourism and travel sector. It was also proposed by the alliance that taxes on travellers should be reduce or waive off to promote tourism sector after the COVID-19 crisis. Pakistan should also take necessary actions to attract tourist in its country especially towards those areas who are more dependent on tourism.

Table 3. Estimated number of SMEs in services to be affected (Millions)

Description	SMEs to be affected (Millions)
Not able to survive beyond one month on cash flow basis	.24
Not able to survive beyond three month on cash flow basis	.76
50% decline in income	.36

Source: SDPI (2020)

Table 4. Expected layoffs among the vulnerably employed by province

Description	Punjab	Sindh	Khyber Pakhtunkhwa	Balochistan
Vulnerable employment (%)	43.1	32.8	41.5	32.3
Layoffs (Millions)	.30	1.0	.70	.20

Source: PIDE COVID-19 E-Book

Table 5. Sector-wise expected layoffs (millions)

Sector	Vulnerable employment	Layoffs
Construction	.25	.22
Hotels and restaurants	.60	.54
Transport and communication	1.95	1.76

Source: PIDE COVID-19 E-Book

The study by SDPI estimated that 0.24 million SMEs in services sector may not be able to survive beyond one month on cash flow basis whereas 0.36 million SME may have 50% decline in their earnings (Table 3). SMEDA (2020) in its report based on survey of SMEs stated that overall 89% SMEs are facing financial difficulties whereas 60% pointed out the problems in selling their products and services.

Singapore has taken measures including wage subsidies in order to assist businesses to retain their workers, income tax payment deferment for self-employed people and companies for three months while cash payouts will also be given¹¹. Philippines planned a fiscal package for tourism and agriculture sector while support for SMEs through loan restricting and micro financing is also included in the package. Switzerland announced SME loan program to resolve liquidity issues while UAE offers various discounts for startups, entrepreneurs and SMEs.

Government of Pakistan has decided to pay the electricity bills of SMEs for three months from which approximately 3.5 million businesses will get relief¹². State

¹¹ 'How governments around the world are supporting SMEs during the COVID-19 crisis' Fintechnews Singapore, Mar 31st 2020, <https://fintechnews.sg/38714/covid19/how-governments-around-the-world-are-supporting-smes-during-the-covid-19-crisis/>

¹² 'Govt to pay small businesses' power bills for three months' Pakistan Today, Apr 27th 2020, <https://www.pakistantoday.com.pk/2020/04/27/ecc-approves-rs75bn-relief-package-for-unemployed-labourers-smes/>

Bank of Pakistan has also announced a relief package under which SMEs can manage their finances through taking loans of higher amounts and for one year time period¹³.

The highest percentage of vulnerable employment in services sector will be in Punjab with 43.1% (Table 4). Highest layoffs are expected in Khyber Pakhtunkhwa (KP) where 0.7 million workers in the sector may face layoff. Each provincial government should ~~have to~~ take necessary measures to mitigate the impacts of layoffs as Evans and Dromey (2020) stated that unemployment affects the health and wellbeing of people.

In terms of sector wise expected layoffs, 1.76 million workers in transport and communication would have to face layoffs while 0.56 million workers in hotels and restaurants would have to face layoffs (Table 5). The preliminary estimates of ILO (2020) indicates that the global unemployment may rise between 5.3 million (low scenario) to 24.7 (high scenario). The report also stated that young people are among the most vulnerable group who are facing the unemployment and underemployment. In Pakistan 36.9% people in labor force belong to age group of 15-24 (Pakistan Bureau of Statistics, 2017-18) which are now facing vulnerable employment situation as indicated by ILO report.

Conclusions

Coronavirus has affected the global markets as the major trading activities are restricted due to lockdowns. Pakistan has also enforced the lockdown which suspended the economic activities. Several reports have estimated the likely impact of the lockdown on economic outlook of Pakistan. The economic survey of Pakistan for 2019-20 pointed out that for the first time Pakistan faces the negative growth rate whereas the services sector growth rate also turned negative. This is a major setback for the economy and the decrease in economic activities will increase the unemployment and poverty in the country.

This study particularly focuses on the COVID-19 impact on services sector of Pakistan and it is observed that sectors such as tourism, transport and hospitality sectors are severely affected sectors in service industry. The lockdown and the implementation of standard operating procedure afterwards badly affected the hospitality sector where business activities were observed close to zero. Similarly, suspension of international flights and the restricted movements domestically affected the tourism revenues along with the people linked with the sector for their livelihood. Transport sector also faces heavy losses due to suspension of intra province movement in the initial period of lockdown. Due to lockdown situation, SMEs operating in services sector may not be able to survive one month on cash flow basis. Punjab and Khyber Pakhtunkhwa are the regions with most percentage of vulnerable employment while highest layoffs in services sector are expected in Sindh.

Countries across the world are devising policies to ensure minimum layoffs by the industries through taking certain measures. France implemented the 'partial unemployment' policy to minimize layoffs through which the government supports

¹³ 'SBP issues relief package for households, businesses as COVID-19 cases surge' *Express Tribune*, Mar 27th 2020, <https://tribune.com.pk/story/2184980/2-sbp-issues-relief-package-households-businesses-covid-19-cases-surge/>

companies and working population. Paycheck Protection Program (PPP) was devised in USA to provide loans to small businesses so that they can keep workers on payroll. Government in Pakistan can also devise such strategy towards severely affected industries to ensure the minimum layoffs during the crisis period.

It is required that government should take careful actions to deal with post virus situation as sectors such as tourism will have to take longer time to revive. Government has announced relief packages for SMEs which is welcoming but the process should be transparent and easy to access in order to avoid any further grievances for the businesses. The hotel industry can be provided relief through delaying utility bills payment and relaxation in taxes and duties. It is required to minimize the impact of this crisis on young persons through supporting them in learning and employment provision. Employment creation will be a serious challenge for the government for which revival of business activities is necessary. Furthermore, government should focus on self-employment program which can be effective in employment creation and addressing unemployment crisis. IT sector and the e-commerce sector possesses potential to revive economic activities and employment creation for which government has to devise strategies accordingly.

References

- ADB. (2020). The Economic Impact of the COVID-19 Outbreak on Developing Asia. *Asian Development Bank*, Briefs No. 128, March 2020.
- Adegun, O. (2014). The Effects of Ebola Virus on the Economy of West Africa through the Trade Channel. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)* Volume 19, Issue 10, Ver. III
- Bloom, E., V. d. Wit, et al., (2005). Potential economic impact of an Avian Flu pandemic on Asia. ERD Policy Brief Series No. 42. *Asian Development Bank*, Manila. http://www.adb.org/Documents/EDRC/Policy_Briefs/PB042.pdf.
- Burkle, F. M. Jr, (2006). Globalization and disasters: Issues of public health, state capacity and political action. *Journal of International Affairs*, 59(2), 231–265.
- Coates, B., Cowgill, M., Chen, T., and Mackey, W. (2020). Shutdown: estimating the COVID-19 employment shock'. *GRATTAN Institute*.
- Evans, S., and Dromey, J. (2020) Coronavirus and the labour market: impacts and challenges. *Learning & Work Institute*.
- Grace O.M. Lee & Malcolm Warner. (2005). Epidemics, labour markets and unemployment: the impact of SARS on human resource management in the Hong Kong service sector. *The International Journal of Human Resource Management*, 16:5, 752-771, DOI: 10.1080/09585190500083202
- Haacker, M., Ed. 2004. The Macroeconomics of HIV/AIDS. *International Monetary Fund (IMF)*, Washington DC.
- Hai, W., Zhao, Z., Wang, J., and Hou, Z. (2004) The Short-Term Impact of SARS on the Chinese Economy. *Asian Economic Papers*, 3:1.
- IATA Economics. (2020, March 24). COVID-19 updated impact assessment. <https://www.iata.org/en/iata-repository/publications/economic-reports/third-impact-assessment/>

- ICMA. (2020). Economic impact of COVID-19 on Pakistan. Institute of Cost and Management Accountants of Pakistan.
- ILO. (2020). COVID-19 and the world of work: Impact and policy responses. *International Labour Organization*, Monitor 1st Edition, March 2020.
- ILO. (2020). The impact of COVID-19 on the tourism sector. *International Labor Organization*.
- Jacobs, L. A. (2007). Rights and quarantine during the SARS global health crisis: differentiated legal consciousness in Hong Kong, Shanghai, and Toronto. *Law & Society Review*, 41(3), 511–552.
- Javed, A. (2019). South Asia's Services Trade: Barriers and Prospects for Integration. *International Journal of Management, Accounting and Economics* Vol. 6, No. 10
- Javed, A. (2020) Economic Impact of Coronavirus and Revival Measures: Way Forward for Pakistan' Policy Review, *Sustainable Development Policy Institute (SDPI)*
- Javed, S., and Ayaz, M. (2020). Projected impact of lockdown on SMEs in Pakistan. COVID-19 Policy Review Series, *Sustainable Development Policy Institute (SDPI)*.
- Kapiriri, L., & Ross, A. (2018). The Politics of Disease Epidemics: a Comparative Analysis of the SARS, Zika, and Ebola Outbreaks. *Global Social Welfare*.
- KPMG. (2020). Potential impact of COVID-19 on the Indian economy. *KPMG*, April 2020.
- Lee, A., and Cho, J. (2016). The impact of epidemics on labor market: identifying victims of the Middle East Respiratory Syndrome in the Korean labor market. *International Journal for Equity in Health* (2016) 15:196 DOI 10.1186/s12939-016-0483-9
- Lee, J., and Mckibbin, W. (2004). Estimating the global economic costs of SARS. Chapter 2 in Institute of Medicine. 2004. *Learning from SARS: Preparing for the Next Disease Outbreak: Workshop Summary*. Washington, DC: The National Academies Press
- Maital, S., and Barzani, E. (2020). The global economic impact of COVID-19: A summary of research. *Samuel Neaman Institute*.
- McKercher, B., & Chon, K. (2004). The over-reaction to SARS and the collapse of Asian tourism. *Annals of Tourism Research*, 31(3), 716–719. <https://doi.org/10.1016/j.annals.2003.11.002>
- McKibbin, W., and Fernando, R. (2020). The Global Macroeconomic Impacts of COVID-19: Seven Scenarios. *Australian National University, CEPAR*, March 2020
- Moghadam, S. R. J., Omid, N., Bayrami, S., Moghadam, S. J., & SeyedAlinaghi, S. (2015). Ebola viral disease: a review literature. *Asian Pacific Journal of Tropical*.
- Paquin, L. J. (2007). Was WHO SARS-related travel advisory for Toronto ethical? *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique*, 209–211.
- PIDE (2020). Working from Home in a Smart Lockdown Changing Dynamics of the Labour Market under COVID-19. *Pakistan Institute of Development Economics*, COVID-19 Bulletin No. 19
- Robalino, D. A., C. Jenkins, et al. (2002). The Risks and Macroeconomic Impact of HIV/AIDS in the Middle East and North Africa: Why Waiting to Intervene Can Be Costly. Policy Research Working Paper Series: 2874, 2002. The World Bank.

- Sanda, I., Kadir, A., Ngonze, C., and Ikome, F. (2015). Socio-economic impacts of Ebola on Africa. *United Nations Economic Commission for Africa*.
- Shingal, A. (2020). Services trade and COVID-19. *VOX CERP Policy Portal*, <https://voxeu.org/article/services-trade-and-covid-19>
- Siu, A., & Wong, Y. R. (2004). Economic impact of SARS: The case of Hong Kong. *Asian Economic Papers*, 3(1), 62–83. <https://doi.org/10.1162/1535351041747996>.
- SMEDA. (2020). Survey report: Impact of COVID-19 on SMEs. *Small and Medium Enterprises Development Authority*, April 2020
- UNWTO. (2020). International tourist arrivals could fall by 20-30% in 2020. Retrieved April 5, 2020, from <https://www.unwto.org/news/international-tourism-arrivals-could-fall-in-2020>