INTERNAL DETERMINANTS OF THE SERVICE TRADE EXPORTS OF CHINA: A TIME-SERIES ANALYSIS

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Abstract

The study has examined the effect of internal determinants on the service trade exports of China from 1990 to 2020 in a time-series analysis using OLS analysis. Environmental degradation (CO^2 emission) has a positive effect on the service trade exports of China. Fixed telephone subscription has a negatively insignificant effect on service trade exports of China. Internet usage has a negative impact on the service trade exports of China; contrarily. Computer and communication services have a positive impact on the service trade exports of China. Lastly, employment in the service industry does not commonly affect China service trade exports. Policies that facilitate and encourage the adoption and use of communication technology would significantly increase trade in most services. Providing access to communication technology and developing communication technology skills are also important for increasing trade. Policymakers should consider enacting policies that encourage countries to make communication technology available to their citizens, as having a common language would then focus on improving and promote better service export and import.

Keywords: *Service Trade Export, ICT, Employment, China, Time Series.*

INTRODUCTION

A significant global agreement to liberalize trade in services has the potential to unleash economic development much beyond what can be achieved by substantially lowering trade barriers for products like agriculture, electronics, and textiles (Fiorini & Hoekman, 2017). Certain services (for example, local telecommunications) can only be supplied if a domestic presence is established. However, statistics on employment, output, and sales of overseas subsidiaries are not regularly included in national income statements (Sun et al., 2021). Second, international activity in major service industries is hampered by market entrance limitations, foreign ownership restrictions, and other regulatory hurdles. This, along with the high fixed costs of service industries, makes service industries uncompetitive (Sun et al., 2021).

Moreover, Carbon emissions are by-products of manufacturing processes, and their magnitudes are determined by scale, structural, and technological factors. The optimization and evolution of industrial structure and the use and development of low-carbon technology are important components of achieving a low-carbon economy (Zheng et al., 2019). On the other hand, many studies have been conducted to determine the impact of the internet on the economy. Many empirical research initiatives have relied on panel data because the internet's history is too short for time-series analysis. Increases on the Internet appear to have a beneficial impact on economic growth (Kang, 2020). The internet, in particular, has made a significant contribution to the globalization of the international economy, as have different trade liberalization measures (Schneider, 2018). The growth of the internet in a nation has an impact on both commodities and services trade. Furthermore, as the internet grows in a country, so makes foreign direct investment (Casella & Formenti, 2019).

In addition, under the present rules of the United Nations Model Double Taxation Convention, technical services are frequently not taxed by the source nation (Alfandia, 2020). As a result, according to Fadzilah et al. (2017), international corporations often avoid paying taxes on fees for technical, managerial, or consulting services. Some nations, particularly developing countries, are worried that domestic law taxation of such services trade would be prohibited if the problem is not addressed in bilateral tax treaties. Also, the expansion of services, particularly infrastructure services, contributes significantly to total economic growth and employment rate. Services are the foundation of every economy and provide vital inputs to other products and services. Services that are efficient and competitive help expand global value chains (Nath et al., 2020).

Moreover, the role of China-Pakistan Economic Corridor (CPEC) is important for China as through its one belt one road (OBOR) project of China's president the country can effectively enhance their global trade. The country can become the center of trade around the world based on these initiatives that eventually develops the infrastructure of their trade services (Khan, 2019). The presence of CPEC has helped China in maintaining good communications and relationships with the countries that lies in the region of OBOR. The country is focused on adapting an effective project management through which it can influence their success and help in contributing towards the economic conditions of the country (Hao et al., 2020). The economic cooperation of China in CPEC has reached new heights as there is a high investment of around US $6 billion in 2006 to US $16 billion in 2015. Also, various firms from China are investing in this project making it a success and developing their own economy as well. There are almost 60 major firms engaged in 122 different projects in various fields of oil, gas, IT, and engineering that eventually China aimed to engage with US $20 billion for raising their trade with Pakistan (Javed & Ismail, 2021).

Besides, once the project is completed it can help China by providing the country with land routes through the dangerous Karakoram highway and can increase their trading with different countries through these routes. The country can eventually increase their exports of different products and can gain a competitive edge over this region (Khan & Liu, 2019). The interest of China in investing in CPEC and Pakistan has made few benefits for Pakistan but it has created rather more advantageous role for the Chinese to overcome their trading issues especially of oil supply from Persian Gulf region to China (McCartney, 2020). Although, CPEC is creating new ways for China to boost their economy but it is also engaged in environmental degradation as it could lead towards adverse reactions. So, the processes in CPEC and its development should be conducted with keeping the environmental protection in mind (Xiaolong et al., 2021).

The worldwide position in the fight against climate change is growing more complex. China has also said that non-fossil fuel consumption will increase to 20% by 2030 (Zhang et al., 2018). However, since the United States withdrew, global climate cooperation has been jeopardized. For China's economy, the size effect of carbon emissions is extremely substantial. On the one hand, China's carbon dioxide emissions are difficult to reduce due to its enormous economic aggregate, big population base, and rapid urbanization process (Dong et al., 2018). On the other side, severe Carbon dioxide emissions controls will stifle economic growth, which is a major issue for emerging nations attempting to transition from low- to high-income status (Sun et al., 2021). Transitioning to a low-carbon economy is still a long way off. Furthermore, low-carbon technology is constrained by several variables, including economy of scale, learning efficiency, and promotion expectancy.

Based on comparing energy usage growth and carbon emission efficiency in China, a more realistic low-carbon economic objective should be established (Sun et al., 2021).
Additionally, the potential advantages (and drawbacks) from service trade liberalization are not fully understood, which is one reason why it has stayed on the back burner. While international trade economists increasingly recognize the importance of services, empirical studies are scarce for various reasons (Karam & Zaki, 2020).

The following is a list of the study's contributions. The study has used data from secondary time-series yearly data from the World Trade Organization (WTO) and World Bank's World Development Indicator (WDI) databases to describe the service trade between China and Pakistan. The research looked at the impact of service trade on energy and carbon emission efficiency and the influencing direction, the developmental trend, and China-Pakistan trade. By examining the disparities in economic sectors of trade in services between the two nations, the study offers policy recommendations for further expanding international trade liberalization and its influence on low environmental damage.

The researcher discusses the study's significance, purpose, and problem in the opening chapter. The second chapter examines the scholarly literature on service trade between China and Pakistan. Chapter 3 (Methods) will include the subject of study, procedures, design, sampling technique, target population, sample size, methodological methods, measurement instrument, and ethical concern, whereas, in Chapter 4, we will clarify and analyze the findings of a report. The study's findings, policies, implications, and guidelines are detailed in chapter 5.

LITERATURE REVIEW

Service Trade with CPEC

The China-Pakistan service trade agreement, which went into force on October 10, 2009, included an agreement on trade in services. The FTA was not just a turning point in Pakistani-Chinese economic relations but also a turning point in China's relations with South Asia (Hussain & Ali Shah, 2017). Following the CPFTA's adoption, China has become. Additionally, the Sino-Pakistani Free Trade Agreement (FTA) would be the main engine for boosting trade between South Asia and China. The CPFTA helped to promote commerce between the two countries (Irshad, 2017). The trade imbalance between China and Pakistan, on the other hand, has widened. CPFTA benefits imports from China, but the rise in Pakistan imports was considerably higher than the increase in Pakistan exports following the CPFTA (Shah et al., 2020).

Role of Tax Policy as a Motivation to Service Trade

Both emerging and established economies are increasingly reliant on services, which are increasingly traded globally. Cross-border commerce in services has now surpassed cross-border trade in products in terms of growth (Rolland, 2020). Historically, double tax treaties were intended to split taxation rights deriving from cross-border commerce between nations, and they were mostly based on a business model centered on commodities produced in physical places (Duran, 2021).

Given the global services trade size, tax authorities must guarantee that revenue from the trade in services is taxed efficiently, accurately, and fairly. Nevertheless, under the present rules of the United Nations Model Double Taxation Convention, technical services are frequently not taxed by the source nation (Alfandia, 2020). As a result, according to Fadzilah et al. (2017), international corporations often avoid paying taxes on fees for technical, managerial, or consulting services. Some nations, particularly developing countries, are worried that domestic law taxation of such services trade would be prohibited if the problem is not addressed in bilateral tax treaties. As a result, they seek to include provisions in their tax treaties or interpret them, even if they do not have a particular item on technical services, to tax revenue from technical services without meeting the permanent establishment requirement (Matheson, 2020). In reality, several clauses in bilateral treaties have been implemented to deal with technical and other services revenue, but there is no uniform manner of dealing with charges for specialized services.

The Tax Committee is presently working on guidelines on providing technical services for nations that want to include a fee for technical services clause in their tax treaties, giving businesses and tax administrations more planning security (Khalilian et al., 2017).

Environmental Degradation and Service Trade

In recent decades, environmentalists and stakeholders have been more overwhelmed due to environmental degradation and ecological distortions of the world's geographical area. The frequent indicators that imply these severe 'revolutions' in the earth's climatic system are the continuous and relatively undesirable climatic experiences, which in most cases culminate in environmental disasters (Usman et al., 2020). Furthermore, the consequences of trade that occur through non-income channels can be both harmful and good. On the negative side, the well-known "race to the bottom" concept states that open nations implement less strict environmental laws than less-open countries to avoid detrimental impacts on their international competitiveness (LaPlue, 2019). Moreover, globalization

might stimulate technical innovation, raise environmental standards, or lead to the exercise of consumer power and the adoption of corporate codes of behavior, according to a less well-known set of possible positive impacts known as the "gains from trade" hypothesis (Libo & Chang, 2017). Similarly, increased trading can better manage the environment by promoting economic growth, development, and social welfare. More significantly, free markets may provide access to new technologies that reduce the consumption of energy, water, and other ecologically damaging chemicals in local industrial processes, making them more efficient (Khaskheli et al., 2021).

H1. *CO^2 emission has a negative effect on service trade in China and Pakistan.*

H2.

Information, Communication, and Technology (ICT) And Service Role

According to the International Federation of Information and Communications Technology (IFGICT), information and communications technology (ICT) is an extensional term for information technology (IT) that emphasizes the role of cohesive communications and the incorporation of telecommunications (telephone lines and wireless signals) and computers. According to the International Federation of ICT, corporate software, middleware, storage, and audiovisual are required to enable users to access, save, transfer, understand, and alter information.

The research on ICT and trade focuses largely on the average (or aggregate) influence of ICT on services trade, ignoring the possible variability in its implications across different service products. Services may be classified into two groups based on where and how ICT is used (Nath & Liu, 2017). According to Luong (2020), ICT-enabled services directly include production and ICT usage. Non-ICT services, on the other hand, are services in which ICT plays a secondary or indirect role (Ol'ga & Matiukhina, 2019). ICT may have an influence on commerce in the first category of services through a variety of routes. ICT, for example, is crucial in fragmenting the global value chain and moving elements of the manufacturing process to different geographical areas across the world (Beecroft et al., 2020). Firms can share information online from anywhere globally, connect with clients and suppliers in real-time, and offer services efficiently and quickly thanks to ICT. More cost-effective providers can deliver services through outsourcing and offshore (Mohammadi et al., 2021).

Moreover, ICT is also the mechanism of service delivery in many situations, and the advancement of this technology may have a favorable influence on trade flows (Rodríguez-Crespo & Martínez-Zarzoso, 2019). Furthermore, as per Sy et al. (2020), ICT expansion may contribute to the growth of ICT-enabled service sectors inside a country (for example,

computer services, including technical assistance for computers and mobile phone hardware and software). ICT may influence non-ICT services trade (for example, building, transportation, and travel). The adoption of ICT, for example, can lower the fixed entry cost into a market, therefore boosting exports (Mirtsch et al., 2021).

H3. Fixed (landline) telephone has a negative effect on service trade in China and Pakistan.
H4. Internet accessibility has a positive effect on service trade in China and Pakistan.
H5. Computer and communication availability has a positive effect on service trade in China and Pakistan.
H6.

Employment and Service Trade

For decades, the services sector has been the world's primary economic activity and source of employment. It accounted for almost two-thirds of worldwide production and 55.5 percent of global employment in 2015 (Yu & Meng, 2021). The sector's worldwide production surpassed $49 trillion, and it employed 1.8 billion people throughout the world. The sectoral contribution to national economic activity, on the other hand, varies per economy. While it accounts for around 75% of GDP in rich nations, it accounts for about 53% in underdeveloped countries (Eppinger, 2019).

The services industry is notably prominent in Latin America and the Caribbean, accounting for more than 60% of total employment, and to a lesser extent, in the Middle East and North Africa (Van Loon et al., 2020). Agriculture still employs a large number of people in various regions of Asia and Sub-Saharan Africa. Agriculture employs 58 percent of the workforce since the region's stalled services export performance has failed to produce strong job development. However, during the previous decade, the proportion of people employed in the service sector has risen in all areas (Van Loon et al., 2020).

Despite industry's dominance in international trade flows, services exports are rapidly becoming a significant source of revenue for businesses. Developing nations saw an annual export growth rate of 9.2% from 2005 to 2015, nearly twice developed countries (Dritsakis & Stamatiou, 2017). Because services are the fundamental backbone of every economy and offer essential inputs to other products and services, the development of services, particularly infrastructural services, contribute considerably to overall economic growth. The growth of global value chains is aided by efficient and competitive services (Meyer, 2021). As industrial value chains are outsourced to services providers, and ultimate consumer demand for services rises with growing income levels, the sector has become the greatest provider of current jobs.

Moreover, while the services sector in rich nations has matured, it remains a new frontier for emerging countries, where a lack of supply capacity and competitiveness and inadequate legislative and supervisory capacities impose a binding limit on their growth potential. Addressing these factors gives emerging countries the chance to create jobs in the service industry (Baldwin et al., 2021). The employment proportion of services has risen in lockstep with production growth. During the previous decade, the sector has steadily increased to become the world's largest source of employment, with services accounting for 55.5 percent of total employment and agriculture accounting for 25.9% (Nath et al., 2020).

H7. *Employment in the service sector has a positive effect on service trade in China and Pakistan.*

H8.

METHODOLOGY

Sample and Population

The study has focused on the China economy for examining the internal determinants of service trade exports based on thirty-one consecutive years from the year 1990 to the year 2020. The selection of the period was particularly based on the availability of datasets, while the data was gathered from the World Development Indicator (WDI) database of the World Bank (WB). The frequency for the dataset was based on time series and was employed for China.

Variables and measurement

Table 1. Operational definition and measurement

Variable	Definition	Measurement
Service trade export	Service in trade refers to the sum of imports and exports divided by the value of GDP.	% of GDP
CO^2 emission	CO2 emission refers to the emission that arises in response to human activities such as burning fuels and deforestation. CO2 emissions are the major cause of climate change and global warming.	Metric tons per capita
Fixed telephone subscription	The sum of voice-over-IP (VoIP), fixed wireless local loop (WLL) subscriptions, ISDN voice-channel equivalents, active number of analog fixed telephone lines in addition to the fixed public payphones is defined as the fixed telephone subscription.	Per 100 people
Internet users	Internet users are defined as individuals who can access the internet using a mobile device or computer.	% of population
Computer and communication services	Computer and communication services refer to the activities such as courier services, international communications, miscellaneous technical, professional, and business services, in addition to news-related transactions services.	% of commercial service exports
Employment in service	Employment in service refers to the individuals engaged in any activity to produce goods or provide services for pay or profit.	% of total employment, ILO

Model specification

The econometric model of the study has been explained as follows.

$$TS_t = \alpha_t + \beta^1 (CO2)_t + \beta^2 (INT)_t + \beta^3 (TEL)_t + \beta^4 (CC)_t + \beta^5 (EMP)_t + \varepsilon_t$$

Herein, TS refers to the service trade exports of *China* at a specific annual time *t*. CO2 refers to the carbon dioxide emission in *China* at a specific annual time *t*. INT refers to the individual using the internet in *China* at a specific annual time *t*. TEL refers to the fixed telephone subscription per 100 people in *China* individually at a specific annual time *t*. CC refers to the computer and communication services exports of *China* at a specific annual time *t*. EMP refers to the employment in the service sector of *China* at a specific annual time *t*.

RESULTS

Descriptive Statistics

In the China series, the total number of observations was 31, and in China, the mean of service trade exports is 6.314% of GDP with a minimum value of 2.829% of GDP and a maximum value of 10.127% of GDP. The mean of fixed telephone subscriptions is 13.991 per 100 people, with a minimum value of 0.582 per 100 people and a maximum value of 27.479 per 100 people. The mean log (CO^2 emission) is 0.165 metric tons per capita with a minimum value of 0.282 metric tons per capita and a maximum value of 0.870 metric tons per capita. The mean of individuals using the internet is 20.314% of the population, with a minimum value of 0% of the population and a maximum value of 54.3% of the population. The mean of employment in service is 32.126% of total employment, with a minimum value of 18.9% of total employment and a maximum value of 47.25% of total employment. The mean of computer and communication is 51.27% of commercial service exports with a minimum value of 18.737% of commercial service exports and a maximum value of 75.445% of commercial service exports.

Stationarity Analysis

The following table 2 provides the result of stationarity analysis using Augmented Dickey and Fuller (1979) estimations.

Table 2. Stationarity Analysis

Variables	Level	First Difference
Computer and Communication	-2.174^{ns}	-6.338***
Employment in Service	-2.353^{ns}	-5.389***
Individual using Internet	0.144^{ns}	-4.829***
Log (CO2 Emission)	-0.665^{ns}	-2.032^{ns}
Fixed Telephone	-1.221^{ns}	-2.575^{ns}
Service in Trade	-2.048^{ns}	-2.159^{ns}

The above table has shown that all variables were found stationary at $^{\text{the first}}$ difference in both series separately, while in the China series, the logarithm of CO^2 emission, fixed telephone, and service trade was found statistically significant. Therefore, the results of stationarity analysis manifested that Johansen (1992) cointegration analysis should be employed to test the long-run relationship between series.

Cointegration Analysis

The following table 3 shows the Johansen (1992) cointegration analysis for the long-run relationship between cointegrated variables in the series separately.

Table 3. Cointegration Analysis

Hypothesized No. of CE(s)	*Trace Statistics*	*Critical Statistics*	*Prob.*
None	165.744	95.754	0.000
At most 1	108.500	69.819	0.000

The above table shows that at none and most 1, trace statistics were found higher than its respective critical statistics in both China and Pakistan. Therefore, the null hypothesis of no cointegration has been rejected, positing that a long-run relationship exists between cointegrated series in both the countries datasets.

Hypothesis-testing

The following table 4 shows the result of time-series OLS analysis for hypothesis-testing.

Table 4. OLS Analysis

Endogenous Variables	*Beta*	*S. E.*	*t-Stats*	*Prob.*
Constant	-0.077	0.409	-0.189	0.852
Fixed Telephone	-0.014	0.012	-1.197	0.242
Log (CO2 Emission)	1.272	0.523	2.433	0.022
Individual using Internet	-0.033	0.009	-3.743	0.001
Employment in Service	0.007	0.014	0.533	0.599
Computer and Communication	0.014	0.002	6.662	0.000
Dependent Variable: Trade in Services				
R-Square	*0.820*			
Adjusted R-Square	*0.784*			
F-Statistics (Prob.)	*22.880 (0.000)*			

Environmental degradation (CO^2 emission) has positive effect on service trade exports of China ($\beta = 1.272$, $p < 0.05$). Fixed telephone subscription has negatively insignificant effect on service trade exports of China ($\beta = -0.014$, $p > 0.05$). Internet usage has negative effect on service trade exports of China ($\beta = -0.033$, $p < 0.05$). Computer and communication services has positive effect on service trade exports of China ($\beta = 0.014$, $p < 0.05$). Lastly, employment in service industry has no effect on the service trade exports of China ($\beta = 0.007$, $p > 0.05$).

DISCUSSION

The finding showed that CO^2 emission had a positive effect on service trade exports in China. This finding was consistent with Lin and Sun (2010) stating that the emissions contained in exports would be greater than those contained in imports. This hypothesized that domestically manufactured products with embodied emissions are not consumed domestically, resulting in a carbon emissions surplus. However, the current study result was inconsistent with Sun et al. (2019), postulating that East Asia trade service exports are not affected by CO^2 emissions. On the contrary, another research has showed opposite results that this result was consistent with Sun et al. (2019), stating that CO^2 emissions significantly affected service trade in Europe; however, it was not significant in East Asia. This postulated that increased service trade with the global world in Europe and East Asia has reduced emissions, but the effect in East Asia was insignificant. However, the result of the current study was contradictory with Sun et al. (2021), which manifested that CO^2 has shown a growing tendency with time and that the effect of C02 on the efficiency of the service trade, with a considerable margin.

The study showed that individuals using the internet had a significant negative effect on service trade exports of China. This result was found in line with Freund and Weinhold (2004) positing that, overall, internet usage intensity reduces global inequality by reducing historically persistent inequalities in service trading patterns and increasing export opportunities for developing countries. The current result of the study was further validated by Yadav (2014), stating that many developing countries of Asia and Sub-Saharan Africa have declining margins of service trade due to internet usage intensity.

Results of the study showed that fixed telephone did not affect service trade exports of China. This result was consistent with Tay (2020) stating that, when it comes to service trade, service export, or service import, fixed broadband and mobile phones have progressively surpassed fixed telephones. However, the result of the current study was found inconsistent with Luong (2020), stating that fixed telephones play a vital role in the expanding trade in services.

The findings of the study revealed that computer and communication that lies in ICT has a positive effect on service trade exports of China. This finding was in line with Tay (2018) stating that communication technology positively impacts service export and import. Tay (2018) implied that fixed broadband, mobile-cellular phones, and the internet, along with having a common language, will improve and boost service export and service import. The result of the study was further validated by Luong (2020), stating that communication technology dimensions had a significant impact on the expansion of the services trade, but

mobile subscriptions have been the most consistent. On the contrary, another research has found opposite result that this finding was validated by Nipo et al. (2018), stating that, in low-income countries, ICT has no impact on service trade. This result was further validated by Tay (2020), postulating that, for all three types of service trade, the communication technology is insignificant.

Results of the study revealed that employment in service did not affect service trade exports of China. This result was validated by Thangavelu, Wenxiao, and Oum (2017), arguing that domestic service employment has no direct effect on domestic service trades. The result was further validated by LV and LI (2010), stating that employment neither affects trade in services nor employment in trade in services. Additionally, this finding was in line with Thangavelu et al. (2017), postulating that employment in the domestic service has no bearing on domestic service trades. The finding was further validated by LV and LI (2010), stating that the pattern of trade and employment in the service industry reveals no effect between service trade and employment. This result postulates that neither does employment affect service trade nor does service trade affect employment.

CONCLUSION

The Chinese service trade was positively impacted by CO^2 emissions. These results postulated that the service trade exports in China were affected by CO^2 emissions, contrary to few researches. Additionally, the findings showed that employment in service trade in China did not affect their service trade sectors. This result implied that employment has no direct effect on the domestic service trades of both countries. Finally, findings showed that all three dimensions of ICT did affect trades in service of China exports; however, trades in service of China were differently affected depending on the ICT application type with results showing computer and communication had positive effects, the fixed telephone had no impact and internet had a significant negative impact. However, in the case of China, mobile-cellular phones and common language improved and boosted its trades in service export, whereas internet usage intensity had declined.

FUTURE POLICY IMPLICATIONS / RECOMMENDATIONS

It is suggested that policymakers optimize the structure of service trade policy. Such policies would be a good way to reduce reliance on energy while also improving energy efficiency and carbon performance. The policy could incentivize service businesses to change their energy consumption structures and develop and implement energy efficiency programs. Economic policies must improve to encourage technological advantages and green practices, which are critical for reducing emissions.

Furthermore, the growth of large-scale service enterprises in international trade can also be promoted through supportive policies such as import duty, credit support, and reasonable tax deductions. Economic efficiency can be improved by implementing such supporting policies. It is suggested that policymakers set emission level targets that encourage trading firms to follow procedures to stay within the emission limit.

Furthermore, policy implications for both governments and the international community have been suggested, increasing internet usage and improving nation-to-nation service trade. As previously noted in the literature, advanced economies still need to increase Internet usage intensity in their respective countries; however, governments of less developed countries and developing countries are likely to make the most significant efforts in this direction. As a result, policies must be implemented to encourage all countries to increase their internet usage to improve service trade and position them in the global market. In developing countries, policies can be established to promote the international community to assist these countries in strengthening financial capacity to better internet usage, which would aid their integration into the global trading system.

Moreover, Policy implications for the advancement of communication technology and the expansion of the services trade According to the study, policies that facilitate and encourage the adoption and use of communication technology would significantly increase trade in most services. Providing access to communication technology and developing communication technology skills are also important for increasing trade. As a result, policymakers should consider enacting policies that encourage countries to make communication technology available to their citizens, as having a common language would then focus on improving and promote better service export and import. The most important factors contributing to service trade continue to be fixed broadband, fixed telephone lines, and the internet. As a result, policies should be enacted that allow cellular applications to contribute to service trade, whether in service export or service import. Trade improvement factors such as population and a common language and technology access and applications in fixed telephone lines, fixed broadband, and the internet are all important for developed economies to export services.

Policymakers are encouraged to lay down policies that classify assets into three or four categories more than enough. For each asset having its designated tax, for example, investments that last a long time such as services, for one end, and assets which quickly depreciate, as computers for one or two machinery and equipment categories for another. Policymakers can create legislation stating that each category should only have one depreciation rate. To compensate for the lack of a specific inflation-compensating

mechanism in most tax systems, depreciation rates may be set higher than the actual physical lifetimes of the underlying assets if such policies were implemented.

The policy should be enacted to integrate a consistent national strategy to build up production capacity and enhance export competitiveness. This kind of policy is necessary to make the services sector function properly; by giving job opportunities to locals and, in particular, infrastructure services open to regulatory and institutional frameworks that best suit local circumstances and priorities, their performance relies heavily on the quality of laws. Policy measures are also necessary to optimize the beneficial impact of the sector to improve its contribution to the growth of the economy and the creation of jobs.

LIMITATIONS AND FUTURE RESEARCH

The study only focuses on the economy of China. Therefore, future studies can focus on other economies of the world that may give a more generalized insight on the subject. Due to data limitations, the study could not determine the degree of actual adoption of service trades in each country or industry. As a result, future researchers are suggested to assess the degree of actual adoption of service trades in other sectors worldwide that may help enhance the knowledge on the subject. The study only used data from online resources. Therefore, future academicians are suggested to use a broader range of databases to gather useful information on the subject. The model could have been further extended with other variables that may impact trades in services. Therefore, Future researchers are advised to add productivity, brand equity, and marketing variables to the current framework to gain more specific results. Other mediators could have been added to the existing framework. Therefore, Future studies can leverage mediation elements like structural innovation and capable human capital to obtain helpful findings that will improve the knowledge on service trades. The study only focuses on the service sector, whereas other sectors play an increasingly important role in the global economy. As a result, other industries, such as manufacturing or pharmaceutical, can be examined in the future, as they are also becoming increasingly significant in the global economy.

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