

Chapter 11 Traditional Services Marketing Issues—Analysis of Impact of Technology in Developed and Emerging Markets

Duswanta Roy

1 Introduction

People have tried to define services for more than two centuries. The definition of services has changed rapidly over the last 100 years. A simple definition could be "something which can be bought and sold but which cannot be dropped on your foot." With the progression of time, the nature of services has evolved. As services became complex, the problems and issues around services marketing has also become complex. The services value chain has evolved into newer models. As an example, apart from the service provider and the customer, now we have aggregators, technology providers, and enablers who have become an integral part of the value chain. Take the case of Uber or Ola, and you would get a quite different service value chain than in the old days of Yellow and black cab rides. Today, apart from the cab driver and the rider there are multiple other parties who are involved in this business transaction. The way services are created and consumed has created significant challenges on how it can be marketed. How can a restaurant in one part of the city cater its services to its clients in other parts of the city, or how can a tutor sitting in India teach students in USA? The answer is technology, over the last 25 years, technology has advanced by leaps and bounce. A decade back, technology was the enabler for business, but now technology is business. Technology is creating a new landscape for companies and services marketing.

There are multiple myths on services and one of them is that, it is less important on a "human needs scale" (Maslow 1954, Chaps. 5 and 8) than products. However, things have changed drastically with the introduction of technology. Be it ATM, Voice Over IP, Online shopping, technology has created new markets, new service opportunities and has solved some of the major challenges of services marketing. World's biggest Car rental company Uber does not own any car, the most significant room rental

D. Roy (🖂)

PMP, Dallas, USA e-mail: duswanta@gmail.com

[©] Springer Nature Singapore Pte Ltd. 2020

A. Adhikari (ed.), Services Marketing Issues in Emerging Economies, https://doi.org/10.1007/978-981-15-8787-0_11

company, Airbnb does not own any hotels, and the most prominent media distribution company, does not own or creates any media-Facebook. In each of these cases, technology helped overcome issues of service marketing, such as proximity issues, distribution issues, and delivery issues. Technology has helped create new business models, new service offerings, and trillion-dollar services markets across the globe. Businesses thrive where technology is available and suffer where it is unavailable, creating a big entry barrier for companies coming from emerging markets. Service Innovation is fueled by technology, which is changing the way people create, deliver, and consume services. The purpose of this chapter is to do a deep dive into the impact of Technology in services marketing and how it has solved traditional issues of service marketing. Look into some of the upcoming and new technology trends and the markets created by those trends. We would discuss how technology has become a core and integral part of service and services marketing. We would also investigate some of the companies from developed markets that have emerged as market leaders in the services industry by using newer technologies. In this chapter, we will cover the impact of technology in services marketing with some interesting use cases. It is vital to understand the technology trends and how it is impacting the entire services marketing. We will highlight how the absence of technology in emerging market is impacting the services marketing. By looking carefully into the issues in the emerging markets, it is possible to identify the exact areas that needs to be corrected or create alternate models.

2 Impact of Technology in Services Marketing—Traditional Issues and How Technology Solves Them

Services are quite different from goods and products and there are some inherent challenges of service marketing. The principles of marketing were created initially to address goods and products where the transfer of ownership happens. In this section, we would discuss some of the core issues in service marketing and then introduce some of the technologies that are helping to solve those issues.

The challenge in understanding experiential services and marketing them—It has been a constant challenge to market services as it is difficult to explain them in a product brochure. There are certain services that are extremely difficult to explain to a large audience base following the principles of product marketing. Traditionally it has been difficult to market these intangible services. The expertise of a hairstylist in a hair salon or the quality of a doctor is awfully hard to market to a larger addressable market, who have not personally used those services. A lot of these services are called experiential services and unless a consumer has experienced it, it is a challenge for the consumer to vouch for it. As these services are highly experiential hence it could be quite different experience even for the same person on different instances. On one day I could be incredibly happy with the food of a restaurant and the next week I may not a different dish. Marketing these kinds of services has always been a big challenge for service marketing companies.

Services cannot be inventoried and are perishable in nature—The time of the lawyer, doctor, teacher cannot be inventoried and stored. The whole process of creating inventory and then storing them as SKU and marketing them fails miserably for services. If a cab is free for 1 h or if a doctor does not have a patient for half a day, then those service opportunities cannot be resold or restocked. It is lost forever, and the use of traditional marketing techniques of selling overstock goods applying discounts or channel stuffing would not be beneficial. So, the fundamental question is how you plan for a service ahead of time to be consumed when it is available so that it is not lost. This is a challenge that service marketing specialists have tried to solve through decades.

Proximity Issues of services and service marketing—"For complex and high perceived risk services, people tend to rely on personal channels" Services Marketing (Lovelock, Wirtz, Chatterjee). Services are generally high touch and require proximity. A teacher teaching a student, a movie theater screening movie for viewers or a restaurant providing food in the neighborhood. Services get delivered one to one, one to many, many to one, and many to many and it is normally a direct transfer. The common understanding was, services unlike products cannot be packed, shipped, or moved to a different location using logistics and transportation companies. This poses a unique challenge for service marketing. If services need to be consumed close to the creation point, then how does one expand and grow the services without increasing the number of places where it gets produced. Does it make sense to market services outside the immediate proximity.

Services often include tangible elements; however, it is some of the intangible elements that define the value creation process in services. The quality of the food draws customers more than the ambience of the restaurant, and it is this intangible element that creates the value of the restaurant. Marketing these intangible value elements poses a serious challenge for service marketing.

However, with the advancement of technology a lot of the issues discussed regarding services marketing have been reduced. To understand the impact of technology, it is important to understand technologies in various aspects of services business and its associated delivery. To have an extremely focused discussion we will be covering only two major technology areas and their impact.

(i) Internet—The most phenomenal technological advancement that has changed the world and the entire services industry is the Internet and the online experience. Sadly, no one got a Noble Prize for that, but, the biggest innovation in the history of humanity after electricity and penicillin is the Internet. The way people consume services and the way companies deliver services has changed entirely with the online model and the Internet. "Developments in telecommunications and computer technology have spurred many new approaches to service delivery" –Services Marketing (Lovelock, Wirtz, Chatterjee). We will look at some specific industry and use cases in the next section. (ii) Mobile Technology—The second technology that is revolutionizing the entire services paradigm, spanning across multiple industries is the emergence of mobile technology and smartphones. Today mobile technology is touching every aspect of our lives. It is estimated that the average person looks at his phone for nearly 700 times a day. 5G Technology is one of the most impactful changes in modern technology with numerous use cases and industry disruptions.

3 How Technology is Breaking Services Marketing Barriers in Developed Markets

Service marketing is a complex process; the traditional method of product marketing is hugely influenced by the 4Ps of marketing, namely Product, Price, Promotion, and Place. In services marketing, there are no defined products but services that are highly experiential in nature. Companies and people are using technology in a unique way to market their services and overcome challenges, such as high touch and face to face service delivery. The above-mentioned technologies has entirely changed Services Marketing for various industries and have solved some of the major issues of services marketing, such as marketing the intangible elements or reaching out to a larger audience beyond immediate proximity. The use of technology and it's adoption is evident in developed countries, such as USA, UK, Canada, Germany, and other countries. In the developed worlds, Internet, and Mobile technologies are in an advanced stage, and enterprises create service marketing plan involving these technologies. This section does a deep dive in how technology is solving the abovementioned issues of services marketing in developed nations with some interesting use cases.

- 3.1. Issues of *understanding experiential services and marketing them*—Let us look through some of the innovative businesses from developed markets those have used technologies discussed above to overcome the challenges of traditional services marketing
- (a) Tailoring Services is supposed to be an extremely experiential and high touch business. However, using the Technology of a smartphone and smart application M-Tailor, an online company is designing and delivering made to order garments to users at their doorsteps. M-Tailor uses its application with the help of which a user or buyer can take his or her measurements. Once done, they upload the data using the smart app, and then they choose the style, cut, fabric for their garment, and place an order. The company uses all these data to create a custom made fit to size garment for the user and deliver it to him through mail. M-tailor is just one example of services marketing and service delivery of exceedingly high touch and experiential service being offered in a complete no-touch model. With the use of mobile technology and the internet, they fulfill their services in an innovative way. All this is possible in a developed nation because the technology landscape and the service industry landscape is highly matured.

- 11 Traditional Services Marketing Issues ...
- (b) One of the most innovative technologies started by Amazon about 2 decades ago was to provide customers with an opportunity to post reviews and provide their feedback on a point scale. Along with providing details of services, pictures the review system has completely revolutionized the process of how people buy services remotely without experiencing them first hand. Most of the sites now have filters using which customers can only search for services those have high ratings. While the consumer has not used the service on his own, but as a human, the consumer would believe in the community and their reviews before making the choice. The higher the rating from a greater number of people, the better are the chances of those services being consumed. In developed nations, it is the new normal for people look at reviews before going to a restaurant or hiring a tutor.
- 3.2. Issues around Service Inventory—We talked about services being perishable and that it cannot be inventoried. However, with the use of technology, some of these problems have been minimized in developed nations and in some emerging markets.
- (a) Uber and Lyft has completely changed the way of the taxi industry. Uber alone was valued at \$90B when they came out with their IPO, Lyft went public with a valuation of \$24B. Ten years ago, none of these companies existed. The only reason they came into existence was due to the emergence of mobile technology. Using a GPS tracker on the phone, anyone can hail a cab and travel with ease. The technology helps riders to book cab drivers ahead of time and allows the cab drivers to define the time when they would be available. This technology can also help optimize the demand and supply of services and help match drivers and riders. As an example, Monday morning more cabs go towards the airport and Thursday and Friday evening we have huge numbers of a cab coming from the Airport. The technology enables Uber and Lyft to push more cabs towards the regions of demand during those specific times. So, with technology it is possible to treat service as a product, use in inventory and sell it to customers.
- The internet transfers power from suppliers to customers, especially in (b) consumer markets.² Internet has changed the way services are consumed now. Online bookings of various services have created a unique way of marketing services and have addressed the challenges of services being wasted or perished. A doctor or a lawyer sells their expertise as services and it is usually billed based on the amount of time spent with the client. While the actual product sold is the knowledge and the experience, the amount of revenue generated is based on the number of clients handled by them and using their time in an optimum way. These providers ensure that they do not turn away clients due to unavailability/rush or due to too much wait time. With online booking systems and with the use of internet and smartphones the service providers can update their availabilities realtime which can be blocked by the consumer ahead of time. These systems also let the customer know if earlier times are available. This solves a big problem of service marketing and is now quite common in developed nations where people have access to Internet and smartphones.

- 3.3. Proximity issues—The technology has evolved and redefined some of the industries completely.
- (a) Traditional Media and entertainment industry had a very well-defined value stream, Creation-Aggregation-Distribution and Consumption. However, with the emergence of internet technology, this value stream has been altered completely. Facebook live is an excellent example of creation and consumption happening in real-time without the process of aggregation or distribution. The entire Media streaming has short-circuited the whole distribution and consumption process. The whole model of how content is delivered to the end-users has changed completely. People now get what they want, when they want, and where they want with just a click of a button. Companies such as Netflix, Amazon Video, Hulu, Vudu only exist because of the impact of internet technology, and have completely redefined the way service is marketed and delivered. The entire service cycle from searching a movie, to buying it and finally watching it, is happening online. This new model was unimaginable a few years back. The whole content streaming platform solves a big issue of services marketing which was proximity based. Now to watch a move the customer does not go to a nearby cinema hall during a particular time and day but can watch anytime, anywhere.
- (b) The online platforms for teaching have created new ways of distributing services which have no constraint on location. The growth of online education in developed nations has been phenomenal in recent times (Table 1).

With the current COVID-19 situation, most of the colleges in developed nations have switched on to online class mode for delivering the services. Education platforms such as Coursera, Udemy have broken the barrier of time and place. Anyone, in any part of the world can access the lectures, do practical's and appear for proctored exams online. Online colleges and online degrees are becoming mainstream and prestigious institutions such as Harvard and MIT are shifting their courses on to online platforms.

The data shows that 40% of US graduate students take at least some of their courses using the online platform, this is followed by 34.5% four-year undergrad and 33.8% of two-year undergraduate students (Table 2).

The modern technologies of Internet and mobile has given new models and dimensions to traditional service marketing. Embracing these technologies developed nations have created significant competitive advantages over the companies coming from emerged countries.

4 Emerging markets—The Lack of Technology and the Competitive Disadvantage

The adoption of technology in emerging markets is still in its early stages. As the penetration of technology is very localized in the urban market, a lot of the service models

| | 2018 | % of 2018 total (%) | 2017 | % of 2017 total (%) | % Change, 2017–18 (%) | 2016 | % of 2016 total (%) | % change, 2016–17 (%) | 0 |
|---|------------|------------------------|------------|------------------------|--------------------------|------------|------------------------|--------------------------|-------|
| All students | 20,008,434 | | 20,138,477 | | -0.60 | 20,230,012 | | -0.50 | 0 |
| Enrolled exclusively in distance education courses | 3,259,560 | 16.30 | 3,104,913 | 15.40 | 5.00 | 2,980,184 | 14.70 | 4.20 | 4.20 |
| Exclusively distance education institutions | 441,646 | 2.20 | 401,384 | 2.00 | 10.00 | 398,021 | 2.00 | 0.80 | 0.80 |
| Not exclusively distance education institutions | 2,817,914 | 14.10 | 2,703,529 | 13.40 | 4.20 | 2,582,163 | 12.80 | 4.70 | 4.70 |
| Enrolled in some, but not all, distance education courses | 3,677,589 | 18.40 | 3,552,651 | 17.60 | 3.50 | 3,330,529 | 16.50 | 6.70 | 6.70 |
| Not enrolled in any distance education courses | 13,071,185 | 65.30 | 13,480,913 | 66.90 | -3.00 | 13,919,299 | 68.80 | -3.10 | -3.10 |

11 Traditional Services Marketing Issues ...

| | 2018 | % of 2018 total (%) | 2017 | % of 2017 total (%) | % change, 2017-18 (%) |
|---|------------|------------------------|------------|------------------------|--------------------------|
| Undergraduate | 16,972,521 | | 17,133,000 | | -0.9 |
| 4-year | 10,865,098 | | 10,818,442 | | 0.4 |
| Enrolled exclusively in distance education courses | 1,519,949 | 14.0 | 1,461,660 | 13.5 | 4.0 |
| Exclusively distance education institutions | 275,798 | 2.5 | 245,265 | 2.3 | 12.4 |
| Mot exclusively distance education institutions | 1,244,151 | 11.5 | 1,216,395 | 11.2 | 2.3 |
| Enrolled in some, but not all, distance education courses | 2,232,239 | 20.5 | 2,114,610 | 19.5 | 5.6 |
| Mot enrolled in any distance education courses | 7,112,910 | 65.5 | 7,242,172 | 66.9 | -1.8 |
| 2-year | 5,849,134 | | 6,057,268 | | -3.4 |
| Enrolled exclusively in distance education courses | 805,872 | 13.8 | 773,772 | 12.8 | 4.1 |
| Exclusively distance education institutions | 3,764 | 0.1 | 3,501 | 0.1 | 7.5 |
| Mot exclusively distance education institutions | 802,108 | 13.7 | 770,271 | 12.7 | 4.1 |

 Table 2. Distance learning enrollments by programs

(continued)

| | 2018 | % of 2018 total (%) | 2017 | % of 2017 total (%) | % change, 2017-18 (%) |
|---|-----------|------------------------|-----------|------------------------|--------------------------|
| Enrolled in some, but not all, distance education courses | 1,169,159 | 20.0 | 1,161,338 | 19.2 | 0.7 |
| Mot enrolled in any distance education courses | 3,874,153 | 66.2 | 4,122,108 | 68.1 | -6.0 |
| Graduate | 3,035,913 | | 3,005,477 | | 1.0 |
| Enrolled exclusively in distance education courses | 932,845 | 30.7 | 868,708 | 28.9 | 7.4 |
| Exclusively distance education institutions | 162,034 | 5.3 | 152,534 | 17.6 | 6.2 |
| Mot exclusively distance education institutions | 770,761 | 25.4 | 716,124 | 469.3 | 7.6 |
| Enrolled in some, but not all, distance education courses | 274,520 | 9.0 | 274,211 | 38.3 | 0.1 |
| Mot enrolled in any distance education courses | 1,828,548 | 60.2 | 1,862,558 | 679.2 | -1.8 |

Table 2. (continued)

Source Inside Higher Ed⁴

and services are nonexistent. In countries such as India or Bangladesh, internet penetration, and access to smartphones are still in the incubation stage. While Uber is available in most of the US states and cities, it is only available in a few metro cities in India. In rural parts of India, where there is minimal internet presence, online service marketing does not work. In recent times Food delivery services such as Food Panda, Uber Eats, Yelp are only operating in a few metro cities in India where the technology elements are available to the market to deliver their services. IT has great potential to improve service marketing using internet and mobile technologies, as mentioned in the previous section. There is unequal access to information and communication technology between developed and developing nations (Macharia and Gituru 2006). While innovative services are being developed and marketed in developed countries, it is unfortunate that those services are not available in the emerging market. In this section, we will investigate some of the fundamental reasons for the poor adoption of technology causing issues in service marketing in emerging markets.

4.1 Government Policy

There is now a global increase in internet penetration due to government-led initiatives and private efforts (Andrade and Urguhart 2009). In developed countries, IT has been used to create a strategic advantage in business and various operations (Apulu and Latham 2009). The development of IT infrastructures in emerging economies has been lagging from those in developed countries because of poor policies and insufficient investments in the IT sector (Laryea 1999). While some countries such as India and the Philippines have created ministries and allocated resources, most of the other emerging countries in Asia and Africa are far behind. With the current economic condition in the emerging economies, IT is not a priority for them. There is no clear IT policy nor significant funding has been allocated to develop IT. Emerging countries have IT policies that are not effective, and this has created problems in the growth and application of Information Technology. Governments of these countries acknowledge the need and importance of IT, but no concrete action has been taken in this area (Enakrire and Onyenania 2007). Most of the emerging countries do not have resources to develop their IT infrastructure and they have hardly received any help from the developing nations (Laryea 1999; Nwaka 2005).

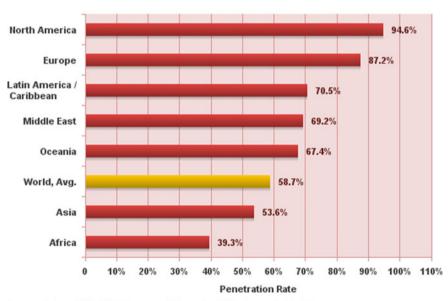
Due to these challenges, there is a significant gap between the IT environment of developed nations compared to the emerging markets, impacting the overall business environment and service operations.

4.2 Lack of Infrastructure

Due to the issues in policies and lack of resources, most of the emerging nations do not have the basic infrastructure in place to develop a robust IT network. This creates hurdles in having good quality internet and mobile networks in these countries. Poor basic Information Technology infrastructure is the major cause of stagnation to the development of Information Technology in African and other developing countries (Omekwu 2003). In developed nations, IT has become a necessity, and the lack of it in emerging markets are having serious implications. The issues of services proximity and its marketing persist heavily due to the lack of basic internet and

telecommunication networks. Car rental companies or movie streaming companies are hardly present in the emerging markets. In some countries, their presence is limited to an extremely specific urban population. People in rural areas or villages still do not have access to telemedicine or online education. During present times this issue has become a burning one in the emerging markets. In the current COVID-19 scenarios, as there are minimal or no models for online education kids are forced to go to school to get their education. Lack of internet and mobile technology in developing nations is impacting business, services, and marketing of those services.

The below chart (Fig. 1) clearly displays the pathetic situation of internet penetration across the emerging markets and the difference with developed nations. Both Asia and Africa consisting of large emerging markets are below the world average in internet penetration which has now become the most important pillar of the modern IT Infrastructure. In most of the emerging markets, the major point of internet access in rural areas are cybercafes with poor internet and computer infrastructure (Ejiaku 2014). Issues such as poor telecommunication networks and power shortages in the emerging markets also play a big role in this poor status of the IT infrastructure. Due to these situations, the issues of service marketing are still very prevalent in emerging



Internet World Penetration Rates by Geographic Regions - 2020 Q1

Source: Internet World Stats - www.internetworldstats.com/stats.htm Penetration Rates are based on a world population of 7,796,615,710 and 4,574,150,134 estimated Internet users in March 3, 2020. Copyright © 2020, Miniwatts Marketing Group

Fig. 1. Internet world penetration rates

markets. One can argue that the better infrastructure for IT including internet and telecommunication is creating a flywheel effect for developing nations in helping the business grow and creating a competitive advantage.

4.3 Lack of Training and Education

One of the major contributors to this dismal state of technology in an emerging market is the lack of skilled manpower. Lack of skilled resources is a major hurdle to IT adoption in emerging markets. Technology industry can only flourish when you have an ecosystem of the right skill and talent. Based on the latest estimates, computer literacy in India is just 6.5% and less than 10% internet penetration.

Emerging markets lack skilled IT professionals who can design IT systems, implement, and maintain them. Based on the study done by LinkedIn⁵ computer literacy is an important skill for professional entry-level jobs. Exhibited in Fig. 2, computer literacy skills (MS Office, PPT, basic programing) comprise roughly 20% of the top 20 skills in demand in South Africa and Indonesia, while in India it is only about 5%. The reason is the maturity of the market and the available talent pool. IT revolution started in India in early 1980s making it a more mature market now. However, most

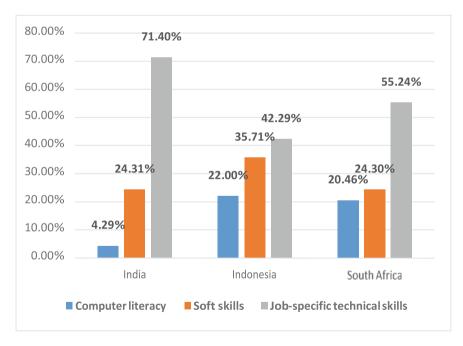


Fig. 2 In-Demand job-related skills, classified by skills groupings (% share among top 20 skills). *Source* LinkedIn Skill Gap Report⁵

of the emerging markets still have a major deficit in the amount of technically skilled workforce. The reason can be attributed to the population, lack of proper education, and resources to create a skilled IT professional.

It may be easy to transfer equipment's or machines from developing nations to emerging markets, however, without the technical skills and resources technology adoption would remain a big challenge. Udo and Edoho (2000) noted that technology transfer takes place when the recipient country has corresponding technical information to enable it to use the hardware in an effective and efficient manner. The lack of skills makes it hard for companies to adopt new technologies for effective services marketing. While in the urban areas some issues of service marketing has been addressed—like e-commerce, cab rental, online portals, however this does not cover the vast rural areas and the businesses around them.

5 Conclusion

This situation is not only bad for the economy or business but also denying users getting truly relevant services. Based on the model of Khan Academy, which uses YouTube videos to teach complex mathematics and other subjects to school and college students, online tutoring has become extremely popular in developed countries. One to one or one to many services provides students and children access to excellent tutors and helps them study. This is particularly important and relevant for countries, such as India, where a lot of the students are the first generation to go to school and colleges, and have no access to quality education or help from their parents. Unfortunately, due to the lack of technology infrastructure, these unique and essential services are not available, forcing many students to give up studies or go to expensive private tutors, putting a significant financial burden on their parents. Let us think about the possibilities of providing all the knowledge of the world at the fingertips of the next generation of students using Technology. Technologies discussed throughout the chapter have amazing powers and have changed the way people experience their lives. A son in USA can send money to his parents in India using online transfer in minutes that can mean a timely treatment at the hospital, saving lives. A child can talk and see his dad using WhatsApp even when he is not around, a smartwatch sensor can detect a heart attack and call emergency providers in time. In businesses; it's never about Technology; its always about solving human problems. Businesses are built around solving problems of users, and technology makes that happen. We believe in an equal world where everyone has access to similar resources making their lives better; unfortunately, that's far from reality.

To improve the situation countries in the emerging markets should focus on.

- (i) Right Government policies and resource allocation to develop the IT industry
- (ii) Significant investment in building infrastructure including communication systems, internet systems that can reach out to the mass of the countries and not remain confined in the urban areas.

(iii) Create an education and skilling system that can train the youth in modern IT technologies.

There is no dearth of talent or smart people in emerging markets, but there is a severe lack of knowhow, access to technology, and tools. Once the government provides the technology infrastructure, we will see more and more businesses and companies being created in the emerging markets trying to solve local problems using technology. With the availability of Technical Infrastructure and the potential of a bigger market, we would see more and more innovative global businesses operating in emerging markets and creating a bigger economy. In India, we still rely on the "Juugad" model, and we try to put a band-aid on wounds those need stitches. An organ donor in Chennai could be matched to a recipient in New Delhi using technologies already available in the developed countries saving millions of lives. Services and businesses such as M-Tailor, Online Tutoring, which are highly experiential service, can be conceived and delivered in the emerging markets if technology is made available in this market. The whole Small and Medium business landscape of emerging markets will change if they shift their focus to services marketing and delivery using e-commerce. The market size and the economy could grow and reach heights, which we had never imagined, as with technology possibilities are limitless. So, the ask to organizations, institutions, and governments of emerging countries is to focus on building a high-end technology infrastructure that can make the future happen today.

End Notes

- Evert Gummesson (citing an unknown source), "Lip Service: A Neglected Area in Services Marketing" Journal pf Consumer Services, No. 1, Summer 1987, 19–22.
- 2. "Crowned At Last", The Economist, April 2, 2005, 3-6.
- 3. Services Marketing (Lovelock, Wirtz, Chatterjee).
- 4. "Online Enrollments Grow, but Pace Slow", Inside Higher Ed, Doug Lederman, Dec 11, 2019.
- 5. "Online Enrollments Grow, but Pace Slow", Inside Higher Ed, Doug Lederman, Dec 11, 2019.

References

- Andrade, A. D., & Urquhart, C. (2009). ICTs as a tool for cultural dominance: Prospects for a two way street. *The Electronic Journal on Information Systems in Developing Countries*, 37(2), 1–12.
- Apulu, I., & Latham, A. (2009). Information and communication technology adoption, challenges for Nigerian SMEs. *TMC Academic Journal*, *4*(2), 64–80.
- Ejiaku, S. A. (2014). Technology adoption: Issues and challenges in information technology adoption in emerging economies. *Journal of International Technology and Information Management*, 23(2), Article 5. https://scholarworks.lib.csusb.edu/jitim/vol23/iss2/5.

- Enakrire, R. T., & Onyenania, G. O. (2007). Factors affecting the development of information infrastructure in Africa. *Library High Tech News*, 2, 15–20.
- Laryea, E. T. (1999). The technological challenges facing developing countries in the move to paperless international trade. *Bond Law Review*, 11(2)10.
- Macharia, J., & Gituru, F. (2006). Determining appreciation of information technology systems. the African Executive, 76, 1–3.
- Nwaka, G. I. (2005). Higher education, the social sciences and national development in Nigeria. In: Presented at the 11th General Assembly of the Council for the Development of Social Science Research in Africa (CODESRIA). Maputo, Mozambique. Retrieved September, 20, from https://www.codesria.org/Links/conferences/general_assembly11/papers/nwaka.pdf# search=%22higher%20education%20collaboration%20nigeria%22.
- Omekwu, C. (2003). Current issues in access documents published in developing countries. MCB University Press, Lagos. file://A.Emerald.
- Udo, G. J., & Edoho, F. M. (2000). Information technology transfer to African nations: An economic development mandate. *Journal of Technology Transfer*, 25, 329–342.

Duswanta Roy is a Global Business Leader with one of the largest technology companies of the world. He has been working in the technology industry for the last 20 years. He has been fortunate to work for three of the top Technology companies HP, Microsoft, and Amazon. Duswanta has seen the impact of Technology on services marketing first-hand. He has helped many enterprises in identifying the right tools and Technology for marketing their services. Duswanta is also a regular keynote speaker in Technology Conferences. Duswanta holds a MS degree in Electronics from the University of Calcutta and a MBA degree from IIM- Kozhikode. He is based out of Dallas, USA.