

MIGRATION AND TECHNOLOGICAL DIFFUSION: THE KERALA EXPERIENCE

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ABSTRACT

This paper aims to explore gulf migration as a crucial factor which accelerated technological diffusion in Northern Kerala. Majority of the studies in this region pertaining to Gulf migration focuses mainly on the socio-economic impacts of the phenomena. The tremendous role it has played in bringing about technological prosperity in the region is an area less explored. In a state like Kerala where livelihood and sustenance of majority of the population were based on agriculture and animal husbandry about 40 decades ago, the impact that technological diffusion has brought into various facets of life is remarkable. What triggered this shot is an interesting question to be pondered upon. Statistical records indicate a somewhat dramatic progression in the number of people migrating to other countries and mainly to the Gulf countries in the past 40 years. This record, as well as many other literatures that shed light into the history and effect of gulf migration, helps to draw a very close link between migration and technological diffusion as well as its accompaniments in Northern Kerala. The method adopted for the current study is a mainly unstructured interview. Interviews were done in the Malappuram district which has a higher concentration of families where migration has happened. Gulf migration has resulted in a widespread increase in the literacy rates in Northern Kerala. It has opened up new choices of occupation, new arenas for investment. It has raised the standard of living of the people back at homes to a certain extend. It has been influential in introducing new cultural practices too. In short, the role of gulf migration in the extensive spread of technology and its pervasiveness in the daily lives of these people is the point that this paper seeks to engage with.

KEYWORDS: Migration, Technological Diffusion, Literacy, Culture, Lifestyle, Technological Remittance

INTRODUCTION

Over a decade and a half have passed since we have stepped into the 21st century. Looking back into the sands of time, we can see that we have traveled a long way ahead in terms of literacy, access to various forms of technology, economic development and so on. Migration has been the single-most dynamic factor in the otherwise dreary development scenario of Kerala in the last quarter of the twentieth century. Migration has contributed more to poverty alleviation in Kerala than any other factor, including agrarian reforms, trade union activities and social welfare legislation (Zachariah et.al, 1999). The migration survey report of 2014 indicates a tremendous rise in the number of emigrants to Gulf countries and an even larger

rise in the emigrants' remittances. Thus, migration is an important area to be studied when trying to grapple with the social change in Kerala and more particularly in the regions with a high concentration of emigrant households, i.e. Northern Kerala. Numerous studies have been carried out in the field of migration and diaspora in Kerala right from its infancy. Most of these studies focus on the economic and socio-cultural impact of Gulf migration. A technological deterministic approach is absent in any of these studies. Technological determinism theory holds that technology drives the structure and cultural values of a society. Meritt Roe Smith (1994) defines technological determinism as the belief in technology as a key governing force in society. Bruce Bimber (1990) suggests that technological development determines social change. Only when one looks through such a perspective will they be able to see the role of technology as a driving force in bringing about these economic and socio-cultural changes. The northern districts of Kerala- Malappuram, Kozhikode, and Kannur has witnessed the highest number of migration in Kerala. Northern Kerala was an economically and socially backward region compared to the rest of the state until the last quarter of the 20th century. Technological diffusion in this region as a consequence of Gulf migration has brought it at par with the rest of state. The main objective of this paper is to trace how Gulf migration accelerated technological diffusion in Kerala and the impact of this diffusion in the region.

REVIEW OF LITERATURE

Historically as well as in the contemporary times, Kerala is one state which has always grabbed the attention of researchers, historians, and travelers for its unique features and practices. Kerala, one of the southernmost states in the Indian subcontinent, holds the record of having the highest literacy rate as well as the highest human development index in the country as per the 2011 census. Social scientists have always been much fascinated to learn about the causes and consequences of these meritorious achievements. One major cause which has been identified by various studies carried out across the state at different points of time is the inevitable role played by Gulf migration.

The price hike of oil in 1973 and the consequent earnings of large revenue had accelerated a process of industrialization and social change in the West Asia countries necessitating the services of a large number of foreign workers. A large number of workers began to migrate to west Asia from India since then. The migration which started with a few thousand per year during the mid-1970s assumed large proportions during 1980s and 1990s (Prakash, 1998). The pioneers in this sudden upsurge in migration to the Middle East have been Muslims of Kerala. Due to certain historical and religious links, they found it easier to venture out to the Middle East. The district, taluks (sub-districts) and villages in Kerala with a substantial proportion of the Muslim population still lead in their contribution to the outflow of workers to the Middle East (Gulati, 1983). These are the major "Gulf pockets" in the state. As per the most recent statistics, the northern districts of Kerala (known as the Malabar) and particularly the Malappuram district has the largest number of Gulf emigrants in the state.

ulati's study on Gulf migration reveals that most of these migrants in the initial phase were "young men, unmarried, with an education of below secondary school level and with little skill". Demographic pressure, illiteracy, economic backwardness, and unemployment could be seen as factors that prompted them to migrate. The Gulf migration helped the migrant households to attain higher levels of income, consumption, and acquisition of assets, resulting in an overall reduction of poverty in Kerala (Prakash, 1998). It is as a result of this migration that remittance receipts seem to have received

a quantum increase from the level that prevailed in the 50s and early 60s (Gulati, 1983). Besides cash, households received several items in kind - clothing, ornaments and jewellery, electric and electronic gadgets (Zachariah et.al, 1998). Conspicuous consumption is a hallmark of an emigrant, especially a Kerala emigrant. Emigrants become accustomed to the use of many new durable consumer goods while abroad. Since many of these goods used to be unavailable locally, they brought them on return home. Most of these goods are now locally available, and the higher purchasing power of migrant households enables them to acquire these goods more frequently and effortlessly than non-migrants could (Ibid.). Those goods which a luxury was before has turned to a necessity today.

In the initial stages of Gulf migration, when the men in the family emigrated, they entrusted close male relatives to look after their family. But over a period of time, when more and more men emigrated, most of the families became women-headed. The new responsibilities were initially challenging to them. Most women were illiterate and they could not perform many of the tasks performed by the male members of the family. For example, one main issue was that they did not even know how to carry out bank transactions. Since men in the family used to handle it, women never knew how to deal with them. Since the remittances from emigrants were the only source of income for most families, women had to learn to operate bank accounts. They had to learn reading and writing. Women from even traditional and conservative households have started coming out of their shell. For instance, Muslim women from migrant households have started operating their bank accounts independently. In villages of high concentration of Muslim migrants, banks have opened special counters where Muslim women can be catered to without being seen by male customers (Gulati, 1983).

Gulf migration has led to better living standards, economic development, empowerment, education, and other socio-cultural developments. According to one village level study, one-third of the households had built new houses within five years of the migration of the worker. Another 20 per cent had repaired and reconstructed their houses within that period (Prakash, 1978). However, the role of technology as a mediator in bringing about progress in these aspects is not dealt with in any studies. Technological diffusion has been a crucial factor for much of the socio-cultural developments in the sender society. Economic efficiency, progress, and sustainability depend on achieving international competitiveness, which is linked with the technological advancement of a nation. Advancement of technology always led to an edge to the pioneering societies. Moreover, its improvement kept them competitive in the world (Chaudhary and Hamdani, 2002). Migration in general and return migration in particular could be one possible source of technology transfer (Ibid.). One needs to look at how Gulf migration accelerated development of the sender society by looking at the pace of technological diffusion. Gulf migration induced as well as accelerated technological diffusion. Today, Northern Kerala region is at par with any other region in Kerala in terms of education, economy, employment, and overall development. In fact, many cultures are being diffused from Northern Kerala to other parts of the state especially the food culture

RESEARCH CONTEXT AND METHODOLOGY

The study was conducted in the 3 different parts of the Malappuram district of Northern Kerala. The northern part of Kerala is historical, culturally and socially distinct from the rest of the state. This region was under direct colonial administration which lasted for about 150 years while the rest of the state- the Travancore and Cochin regions remained as Princely

states. There were sharp contrasts in the policies of these two administrations and this has had important and identifiable consequences on the rate and pattern of social and economic change in Kerala. Because of this historical divergence, the two regions could go far ahead in all spheres of human life in comparison to Northern Kerala (anonymous). It remained economically and socially backward even after independence. This was also one major factor that caused people of Northern Kerala to migrate to other countries in search of better income and employment opportunities.

With the beginning of Gulf migration, Northern Kerala witnessed drastic changes in the economic, social, political and demographic sphere. There was tremendous progress in all sectors. Within the first decade of gulf migration itself these changes were visible in all spectrums and by the next decade, Northern Kerala could be equaled to any other part of Kerala. Year after year, the number of emigrants steadily increased. Exploring the history of technological diffusion in Northern Kerala, one can easily assert that gulf migration has played a major and visible role compared to any other part of Kerala. Modernization of Northern Kerala as a result of gulf migration proliferated developments in all spectra of the region.

The study was conducted among the Muslim population of Northern Kerala because the impact of gulf migration was most visible among them. Due to certain historical and religious links, it was easier for the Muslims to migrate to Gulf and so they were the first generation of emigrants to the Gulf. In order to learn about all the three generations of Gulf emigrants, it was more reasonable to conduct the study amongst the Muslim population.

Unstructured interviews were used to collect data from the respondents. 16 respondents were chosen from different parts of the Malappuram district through snowball sampling. Snowball sampling was used because it was difficult to identify the emigrants who have lived in Gulf countries during all the three phases. 4 of them were interviewed through Skype. Casual conversations with other emigrants and relatives of the respondents have also provided valuable data for the study.

DISCUSSIONS

Phases of Technological Diffusion

Emigration to the Gulf countries from Kerala starts from 1975. They mostly migrated to Saudi Arabia. In the Northern Kerala, Muslims had two aims for moving to Saudi Arabia. One reason is that they could go on pilgrimage to Mecca and offer Hajj, which is one of the five pillars of Islam. They not only emigrated to Saudi Arabia but other Gulf countries also. In the first phase, traveling to Gulf countries was highly risky and there were even chances to lose one's life. But their condition forced them to take such risks. They did not have anything other than dreams. They were not educated, they did not have any technical skill, they did not have enough capital to start a business, they did not have a social connection, and worst of all, they did not even know the language. They worked as manual laborers- taking up works like construction work, animal husbandry, cleaning, mining, fishing, driving, sales, etc. Their salary was very low since they were working in the primary sector.

The developmental transition of technology in Northern Kerala can be divided into three phases. The first phase starts from 1975 to 1990, the second phase from 1990 to 2005 and the third phase from 2005 to present. Technological advancement in gulf countries began in the 1970s. The important household items in this period came from the USA, Japan, and Germany.

The Gulf countries were in the infancy stage of development. They had started a bilateral relationship in this period and their economic policies were more open compared to India. So access to new electronic items was more rapidly available to Gulf countries. A lot of American based mining and construction companies worked in this region and they brought in modern accessories and household products to the Gulf countries. Shops sprang up which began to import American made products to Saudi Arabia.

The first phase emigrant workers from Northern Kerala could not earn a good salary and remuneration. As already been mentioned, since they worked in the primary sector, their salary was very low. It affected their consumption pattern also. During this period they used to spend a small portion of their income for basic amenities and send the rest of it to their houses. Their priority at this stage was food, construct own houses and invest money in the education of their children. They did not have the facility to send products to their hometown. They went home very rarely. They spend 4 to 8 years continuously abroad. When they went home they purchased mainly clothes (polyester clothes), dates, chocolates, and they also brought zamzam (holy water). The technological products they brought in this period were mainly pen, radio, clock, watch, tape recorder and emergency lamp. Northern Kerala, for the first time, witnessed the use of these technologies and the presence of this product. The “Gulf Malayalees” were the first users of these technological gadgets in Northern Kerala. But there was a major constraint to use these technological products. Lack of electric current was a barrier to use some of these technological products. During this period they largely depended on battery and they brought battery products. However, in the first phase, diffusion of technology in Northern Kerala was limited. One reason was the lack of affordability. Another reason was that they never experienced these products as inevitable. Most of the emigrants belonged to poor families and their priority was different (so they mainly brought food item and clothes).

In the second phase (1990-2005), the number of emigrants from Northern Kerala drastically increased. Data on the annual labor outflows from India suggest that there was a steep increase in the migration to the Gulf between 1991 and 1995. During the 1990s the major destinations of Indian migrants to West Asia were Saudi Arabia, UAE, Oman, Bahrain and Kuwait (Prakash, 1998). The first generation of the migrants took their relatives and family members to Gulf countries. There were new jobs available for the emigrants and they could adjust better. The important transition was that many of them moved from the primary sector to the secondary sector, that is, the service sector. They became more economically stabilized and their networks increased. They also started small shops and acquired office works. The second phase emigrants learned Arabic language and it helped them to improve their position. During this phase, the emigrants from Northern Kerala acquired skill education. Their previous generations taught them the importance of education and skills. So they started earning a good salary. A good part of the remittances received from the Gulf was spent by the households for constructing new houses, buildings and boundary walls, repairing houses, improving land, etc (Ibid.). The economic development helped them consume more advanced products than before.

Another change that occurred in the labor market due to the Gulf opportunities was the introduction of vocational education and training for skills. In order to migrate to the Gulf, unemployed youth began to join courses that helped them to get skills required for jobs in West Asia. A number of vocational courses were started by private agencies to train young people. The courses include construction-related courses, motor operation, machine operation, welding, computer operation,

catering, tailoring, technician, paramedical courses, etc. This has resulted in a qualitative change in the vocational education system in Kerala. The large scale migration and flows of remittances have resulted in unprecedented economic changes in Kerala. Widespread changes have taken place in the labour market, consumption, savings, investment, poverty, income distribution and regional development (Ibid.).

The variety of products available in the Gulf markets also increased tremendously. Gulf had become economically a well sound nation. Particularly in UAE, American made products were quickly available. Arabians spend a lot of money on these household electrical products. So gulf countries became an important market of household technological products. Television, computer, land phone, mobile phone, VCD, DVD, etc began to be used largely in this period. The introduction and diffusion of products became more rapid. This affected not only the local people in the country but also outsiders. Gulf Malayalees got familiar with most of the products during this period and they brought those technologies to their homes. Import of watch, iron box, torch, emergency lamp, and tape recorder further flourished. The emigrant households were the first users of the land phone in Northern Kerala. Diffusion of the mobile phone also happened in the last years of this phase.

The duration of their lives in Gulf countries also decreased. Companies began to give leave once in a year or two. Some companies also paid the ticket fares of their laborers. So the occasional travel to home nations also eased access to technology. The “luggage culture” also flourished in this period. They used to send “cargo” to their homes before they themselves went home.

In the third phase, technological diffusion due to migration has tended to decrease. There are only a few items which have widely diffused from Gulf country to Northern Kerala. A mobile phone is one of the important products brought from the Gulf countries in this period. There was a Nokia culture that existed in Northern Kerala at a point of time. Advancement of the mobile phone was very rapid. Emigrant people from Northern Kerala were the first generation users of this advanced technology and they should be credited for the introduction of mobile culture in Northern Kerala. This mobile culture began in the opening years of the 3rd phase. Another important technological product that arrived from the Gulf countries to Northern Kerala was “Tablets”. Tablets were cheaply available in Gulf and its availability was high. In the local markets of Northern Kerala, its price was high and the quality of the product was comparatively low. So it created further demand for electronic products. Laptops reached Northern Kerala through these emigrants. They worked in different companies and these companies provided laptops to the workers. They used this laptop for video calling and other social networking activities. So they also send to laptop to their home because they could connect with their family at the fingertips.

Impact of Technological Diffusion

The impact of gulf migration is reflected in the literacy rate of the sender society. A simple artifact like pen caused a change in the social status of the people. Many people from Northern Kerala began to learn writing and reading in order to reach the Gulf. Wives of the gulf migrants were also compelled to become literate as writing letters were the only option available to them at that point of time to contact their husband’s miles and miles away. The ‘pravasis’ largely brought pens when they came home from the Gulf. A pen was also one of the important gifted products. Fountain pen and parker pen were

symbolic products imported from Gulf countries to Northern Kerala. The diffusion of pen helped to create a letter culture. These influences could be witnessed in Mappila songs also. A new version called 'kathupattu' (letter song) became part of the cultural heritage.

Tape recorder (pattupetti) was also brought by pravasis in this period. The 'kathupattu' was the main theme of the audio/video cassettes in this period. A proliferation of Mappila songs was also related to the process of gulf migration and technological diffusion. This helped to assert religious beliefs. Recording of vayalu (religious speech) and selling of such cassettes emerged as a new form of business. Cassette shops sprang up in different parts of the Northern Kerala in this period.

Another important, as well as direct impact of the gulf migration, was the emergence of gulf bazars. In the first phase, there were some agents in every region who used to visit the home of the pravasi when he returns from the gulf. They bought different household products from the pravasi and sold it to a third party at a higher price. But in the second phase, there were some exclusive areas for buying and selling of gulf products. Tirur and Calicut were the important markets of gulf products. Consumers for gulf products were very high compared to the present day. The middle-class people who do not have anyone in gulf largely depended on these gulf bazars. Electronic products, dresses, sprays, and accessories were the important products in gulf bazars. In the second phase, torch, radio, tape record, emergency lamp, iron box, digital camera, television etc. were the important products. But in the third phase, these gulf bazars transformed into mobile shops where foreign as well as Indian products were available.

Gulf migration fostered religious education among these people. Educational institutions like madrassas were limited and old generations acquired religious education through the cassettes. Thus, tape recorders had a major role in propagating religious knowledge among Muslims. But at the same time, Muslim ulamas had a problem with the use of tape recorder, radio, television, and digital camera. In the early period of diffusion, they had reluctance towards these technologies. Television was called 'shaithanpetti' which means evils box. They (the religious priests) thought that modern technology would decrease the morality of the people. The idea of "entertainment" was also problematic in Islam. Ogburn (1922) calls this tendency as the cultural lag i.e a common societal phenomenon due to the tendency of the material culture to evolve and change rapidly and voluminously while non-material culture tends to resist change and remain fixed for a far longer period of time. It can lead to tensions in society.

Technological diffusion also gave way to a new gift culture. Gift giving is a social, cultural and economic experience; a material and social communication exchange that is inherent across human societies and instrumental in maintaining social relationships and expressing feelings (Camerer, 1988, Joy 2001). Research within different disciplines to gain insight into gift giving behavior has continued for over forty years. Gifts are bestowed in celebration of key life events, a medium for nurturing personal relationships, to encourage economic exchange and to socialize children into appropriate behavior patterns (Belk, 1979). Obligations within a community require that individuals are required to give, receive and to reciprocate (Mauss, 1954).

If one tries to trace out the history of gift giving in Northern Kerala, one could understand that gulf migration has played an important role. Migrants were supposed to gift different goods to their family members and friends. Through this gift, the ties between families would increase. An emigrant had high social status because of this gift-giving practice. An

important factor for technological diffusion was the gift exchange practice of the emigrants. In the first phase, gift items mostly included clothes, aththar (a kind of perfume), dates and pen. The practice of gifting gadgets also started in the first phase and it flourished in the second phase. Gift giving, thus emerged as a token of thanksgiving to the relatives who take care of the migrant's parents, wife and children.

Gifting of branded watch imported from Gulf to the groom by the bride's brother or close relatives had become a common custom among marriage ceremonies in Northern Kerala. During this period, the dowry system was also prevalent in this region and one item demanded as part of dowry by the groom's side was a foreign tape recorder. A tape recorder was a kind of status symbol. In the later phases, the gifts given to the groom or the relatives shifted from tape recorders to the latest and more expensive gadgets though the gifting culture proliferated. In any of these phases, it was technology that was being gifted as a symbol of affection or status.

Diffusion of communication technology and changes in the concept of space

Reduction in communication gap with the transfer of information and communication technology (ICT) is to be seen as the most profound impact of Gulf migration in Northern Kerala. Earlier, there was no means to communicate with the emigrants. This was a serious problem. Prior to the emergence of mobile phones, internet, landlines or even letter writing tradition, the spouses of the emigrants struggled a lot at the in-laws' homes. As it was mainly men who migrated to Gulf, the wife had to live with the in-laws' at her husband's home as per the custom. Many a time, she was tortured by the in-laws or husband's sister or others in the home. She could not communicate with her husband and had to endure all sufferings. Whatever may have been the short-term effect of migration in terms of enhanced family interdependence, its long-term effect may well be quite the opposite. The estrangement between wives and their in-laws may well outlive the migration, which, in any case, is extremely temporary. When the men return home and settle down, the damage to the intra-family relationship may well be beyond repair (Gulati, 1983).

During a casual conversation with the wife of one of our respondents, she narrated her experience about thirty years ago. She got married when she had just completed her ninth standard. She was the topper in her class and an active participant in school activities. Her teachers also encouraged her a lot in academic and non-academic activities. But during her ninth standard vacation, her aunt brought a marriage proposal of a "Persian Mappila" (a term used for Muslim Gulf emigrant) for her. For her parents, that was something to rejoice about. The groom did not demand any dowry and for her father, who was a coolie worker, there could not be a better proposal for his daughter than this and the marriage happened. The groom was nine years older to her but he was a loving and understanding person. The first two months after marriage was filled with lots of happiness and she slowly understood the role of a woman. But after the two months, her husband returned to Gulf and then the situation underwent a sudden change. Her mother in law became rude and forced her to do all household chores. Her sister in law treated her like a slave and made her wash even their undergarments. She could not communicate anything with her husband. She did not get any money from his remittance. Even the letters that were sent to her by her husband were first read by her mother in law and sister in law before her. Same was the case with the letters that she wrote to her husband. They

also used to harass her in the name of dowry. She could not convey her sorrows to her husband. She said that there were such moments in life when she even thought of committing suicide. The only hope she was left with was that her husband would return some day and everything would be fine. She said that the new generation does not have to face such traumas in life. They can easily communicate with their spouses through mobile phones or the internet. There is no more communication gap.

Another respondent described the difficulties he experienced prior to the diffusion of ICT. His son had died two weeks after birth and he got to know it only two months later. In the early years of migration, life in the Gulf was horrible. Today the situation has changed a lot. Even before the people back at homes get to know things happening around them, they become aware of it. Messages pass at the wink of an eye. Whatsapp groups, facebook, internet, etc help them to keep in constant touch with their land and people.

Space and time barriers have been broken with the diffusion of ICT and transnational families are able to maintain a very cordial relationship unlike before. For those women-headed households, decision-making and responsibilities are no longer a burden or psychological stress. They always have their husbands available at the other end to help them at any time. While it was through letters that communication was possible in the initial stages of migration, later on, the gap kept decreasing with the diffusion of landlines, mobile phones, and internet in the consequent stages.

Many married women continue their education even after their marriage today and this is also a consequence of better communication. Earlier, they were not able to seek permission from their husbands and even if they do, most husbands felt insecure to send their wives alone. But today, the scenario has changed. There are no more questions of insecurity. Women are more educated and they have more freedom than before. Thanks to mobile phones, particularly smartphones and internet.

Affection and love in families increased due to communication technology. For instance, in the 1980s and 1990s, children did not have a close attachment with their father who visits them once in four or five years. He was more or less like a guest in the family. They never got the fatherly affection. But today, children are able to talk regularly through video chatting. So they do not miss the physical presence of a father.

It would be interesting to look at the various stages of diffusion of communication technology in Northern Kerala. In the first phase of gulf migration, any form of instant communication technology was absent. They used a pen to write a letter to their wives, parents, and other relatives. It took a long time to reach their homes. The letters were sent by post or through someone who was going to their place. A small space of their luggage was reserved for these letters to be distributed when they reach home. When a person reached home from the gulf, he had to travel to many places to deliver these letters. And then they also had to carry letters of their friends' family while returning to the gulf. Many of the people in Northern Kerala learned writing and reading because of the influence of the Gulf. The "kathupattu" (letter songs) is an important cultural contribution of the gulf Malayalees in this phase. So a simple technology like a pen had a larger implication. A tape recorder was not only a means for entertainment but also a medium for communication. Migrants used to send tape recorders to their homes with some cassettes. He would record his messages (visheshangal) in a cassette and also send a separate cassette for his wife and parents. It was a treat to hear the voice of one's beloved. The family members used to record voice messages in

the separate cassette and send it back. Sometimes they used to record their sorrows in the form of songs. They used to hear the sound of their beloved more than one time in a day.

In the second phase, the land phone began to be used for communication. Letters were prominent even then. This was because using the land phone was very expensive. They had to spend 12 riyals (120 Indian rupees) for a minute. We had to pay for incoming calls also. BSNL had started the land phone connections in Kerala. In its early stage, they had to pay 10000 rupees for the land phone connection, but gradually it has decreased. The call charges also decreased after a few years. In the last years of the second phase, the mobile phone began to diffuse in gulf countries and consequently, it came to Northern Kerala also. But the mobile range was only available in cities.

The third phase witnessed rapid growth in communication technology. The first years of the third phase, mobile phone proliferated in Northern Kerala. They were mainly brought from Gulf countries. Mobile phones advanced rapidly and all these new versions are available in Northern Kerala because of the influence of Gulf migrants. A mobile phone has become an important symbolic item of the emigrant. They largely diffused through the 'gift culture'. Laptop and computer also spread over during this time. But the mobile phone was better affordable to most people. A spread of internet has also helped gulf migrants to keep in touch with their families and friends. Social networking sites and new applications eased this process. The barriers of space have been broken with the tremendous advancements in communication technology like video calling applications and much more.

Factors which Influenced Technological Diffusion

Annual migration survey reports indicate a steep increase in the number of Gulf migrants particularly from Northern Kerala. Northern Kerala has many "Gulf pockets" where there are large concentrations of emigrant households. As more and more people migrated, the pace of technological diffusion or "technological remittance" also increased. Hence, in the initial stage, the technological remittance was less than the latter stages.

Another factor that influenced technological remittance was the difference in income. In the beginning, people migrated due to lack of employment opportunities and demographic pressure. They lacked education and skills. Their wages were low. There were limitations to their purchasing capacity. They had to send the savings to the family whose day to day needs are met with this meager remittance. They could not purchase expensive goods or gadgets. Their priorities were different- to build their own homes, to support the family back at home, to clear debts if any and so on. So the return migrants brought in simple technologies like a pen. However, in the second and third stages, migrants got better employment opportunities and better income with which they could sustain their families and also spend on other technologies. Their purchasing power was higher. So technological remittance was higher.

Education is another predominant factor that influenced technological diffusion. In the early phases of migration, people lacked education and skills which affected their employment opportunities. They realized the importance of education and invested more in the education of their children. The emigrants of the later phases were better educated and skilled than their predecessors and had better choices and opportunities for employment. This gave them social and economic mobility.

They engaged with more advanced technologies. Return migrants brought more expensive technologies when they came. Those technologies which were never imagined to be a necessity soon became an integral part of their lives.

The Gulf experience gave the emigrants better awareness. It also changed its world outlook. For instance, more and more women are pursuing higher education in this region. Earlier, they used to confine themselves within the walls of their husband's home performing all household chores and rearing children. The scenario has changed now. One of the respondents narrated the problems that he faced in the Gulf due to low education. His life situation did not give him the opportunity for a good education. He had to work in an ordinary hotel in Bahrain. He had to work fourteen hours a day and he could return home only after four or five years. He wanted his children to reach a better position by providing them a good education. He wanted to provide them with all facilities to equip them to survive in a competitive world and get better jobs. He brought laptop and smartphone for his son so that he learns to use all modern technologies. He said that education is a better asset in today's world rather than land, gold and so on. Education is feasible through the internet and technological gadgets are important for education today. Availability of high-quality products/ technology at low prices in Gulf countries also proliferated technological diffusion. Possession of new technological gadgets became a status symbol or an indicator of one's social status.

Recent Trends

Nowadays gulf products do not have the demand that they had before- the reason being the introduction of the new economic policy in India which opened markets for other products from other countries. Various international agreements have accelerated the import of goods from other countries. As a result, quality products were easily available in the local markets. This became an important reason for the decreasing rate of diffusion of household technologies from the Gulf. Influence of online shopping sites is another important cause. Household electronic products are one among the most common items sold through online sites today. Northern Kerala is actively engaging with these online shopping sites. International brands are also easily available through these sites. By the mid of the third phase (2010-2012), Chinese products began to capture the markets of Northern Kerala. Technological products were available at extremely low prices and this was the main attraction. It also affected the diffusion of technological products from Gulf countries. However, Chinese products could not win the trust of the people. Lack of quality of the product decreased demand for Chinese products. The symbolic value of the Gulf products has also begun to decline. Availability of branded products in the local market at equal or lower prices and better quality of Indian made products has decreased the rate of diffusion of technology from the gulf in the region.

CONCLUSIONS

This article has drawn its theme from a technological deterministic perspective of the socio-cultural and economic changes that occurred in Northern Kerala since the beginning of Gulf migration. While many studies pertaining to migration and diaspora have been carried out, none of these recognize the significant role of technology in it. Impact of Gulf migration cannot be confined to economic, socio-cultural, political, demographic, educational and health care aspects. It has a massive

Table 1: Phases of Migration and Associated Changes

Phases of the Migration	Characteristics of Emigrants	Major Diffused Technological Products	Impact on Society
First phase (1975-1990)	Mainly worked in the primary sector. Income was low. Numbers of emigrants are very less. Educational qualification is minimal.	Watch, Torch, Emergency lamp, Radio, and Tape recorder	Got the awareness of modern electrical products. These products are becoming the symbolic capital of Gulf Malayalees. Encouraged other people to go to the Gulf. Emerged "digital divide" between emigrant and non-emigrant.
Second phase(1990-2005)	Numbers of emigrants are increased. Natures of jobs are changed from primary to secondary and tertiary. Remittance of money and other products are increased.	VCD, Iron box, DVD, Television, Digital camera, Computer, Mobile Phone and other items diffused in the first phase.	New means of entertainment. Communication technologies are developed in the phase and concept of space is begun to decrease. Religious unrest toward new technologies like Television, computer, and Digital camera.
Third phase(2005- present)	Numbers of emigrants are increased. Incomes of the emigrants are also increased. Job nature is stabilized.	Smartphones, Laptops, tablets and few items of the first and second phase.	Pravasi is the major reason for spreading Information Communication Technologies in Northern Kerala. Women got more freedom through technology. Education among women is increased.

role as a catalyst in the technological diffusion in Northern Kerala. Without this catalyst and this reaction occurring, Northern Kerala would not have been what it is today. Today, the region is comparable to all those regions which were historically much ahead of it in terms of overall development. Acceleration of technological diffusion accelerated progress in all other sectors which would otherwise have taken several years to reach this status. This study has traced the different phases of Gulf migration and the consequent progress in technological remittance. It has looked into the impact of technological diffusion and the factors that influenced this diffusion. Each phase of migration has its own characteristics. The first generation migrants paved the way for the next generation who were the real contributors in technological remittance. The dramatic upsurge in the number of emigrants and their remittances helped in the overall development of the state. The better employment opportunities and better income brought visible changes in technological remittance and its impact on the region. The most influential technology amongst all, however, was the communication technology. It took Northern Kerala to a new level from its impoverished condition since the colonial period that did not change even after independence. While the earlier stage of technological remittance was in the form of household gadgets, the last part of the second phase and the third phase remittance was in the form of ICT. The increased awareness, changed world outlook enabled them to invest more in ICT as they felt that it is this technology that will shape the future of upcoming generation.

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