Thus, a gender focused ICTs initiative involving significant state intervention has brought about positive changes to livelihood outcomes and empowerment of women. The thesis concludes that ICT as a form of new technology are socially deterministic, with varied implications for women in terms of employment and empowerment dependent on the context within which the ICTs are utilized. It shows how ICT-based initiatives empower women.

Chapter 6

SUGGESTIONS AND CONCLUSION

6.1 Introduction
The thesis identifies ways to use ICT actively and effectively to promote gender equality and the empowerment of women. It is clear that the importance of Information and Communication Technologies is not the technology as such, but it’s enabling function in access to knowledge, information and communications. It is increasingly becoming the important element in today’s economic and social interaction. In the span of one generation, Information and Communication Technology (ICT) has brought about a lot of changes globally. Any nation that capitalized on ICT has recognized significant returns on their initial ICT investments. Therefore, Information and Communications Technologies for Development (ICT4D) is an initiative aimed at bridging the digital divide (the disparity between technological "have" and "have not" geographic locations or demographic groups) and aiding development by ensuring equitable access to up-to-date communications technologies.

Although the role of information technology for women’s empowerment acquires greatest significance yet it requires highly sophisticated and learned society as a basic ground. Close observation of the scenario in Kerala indicates that urban females are ahead of rural female in respect to women empowerment. Thus there is a need in the state to raise the literacy level and awareness among women folk of rural regions towards participation in technical education. Knowledge empowerment of rural women is one focus point where the Government policies and strategies can look for good results in bringing socio-economic upliftment to our rural economy.

The participation of woman in the labour market and in socio-economic activities is generally considered to be the threshold for empowerment and indicators of economic development of a nation. During the last few decades the participation of women in the labour market has increased remarkably in both developed and developing countries, though their distributions among the nations have been uneven and their labour force behavior differs significantly from that of men. In a developing country like India female employment is not only low but remained near stagnant over
the past few decades. Earlier the traditional family structure and social outlook in India had kept women away from obtaining adequate employment. The situation has changed and now, women are pursuing higher education and jobs in all fields.

The use of Information Communication Technologies (ICTs) helps to bridge the gap between people’s opportunities for self-employment in the informal economy and the high growth sectors of the world economy. In an informal sector, workers can gain easy access to the Internet through telecenters and obtain information about markets or administrative procedures, and to publicise their services to a wider clientele. SEWA (Self Employed Women’s Association) was started using telecommunications as a tool for capacity building among the rural population. SEWA uses a combination of landline and satellite communication to conduct educational programmes on community development by distance learning. The community development themes covered in the education programs delivered include: organizing, leadership building, forestry, water conservation, health education, child development, the Panchayati Raj System and financial services.

It can be concluded that the women of Kerala is empowered through the help of information and communication technology. It has changed their position from the past. Kerala as a technologically advanced state in India is also doing a lot of projects for the women in village in general and empowerment of women in particular. It has also taken several steps and implemented various plans and policies along with government of India to eradicate poverty and bring the women into the IT related industry. NGOs and other private agencies working in the field have also extended their help to promote IT among the women. The development of IT has enabled the women to participate in the daily affairs of the state, which range from the household work to local governance.

Moreover, the studies on gender parity reveal that Kerala is the only state in India where the female labour force participation rate has declined continuously with highly educated population. The presented study is mainly concentrated on the analysis of the impact on educated female
labour market in Kerala through employment opportunities in the ICTs sector which is summarized in this chapter. This last chapter presents the conclusion of the study and suggestions also. The first section of this chapter includes the summary of the analysis of the secondary data, second section summaries the analysis from the primary data and third section put forward the suggestions and policy measures based on the study.

6.2 **Summary of the Analysis of the Secondary Data**

The study is based on primary and secondary data. Secondary data was collected from various Census reports, NSSO 66th round up, National Family Health Survey-3, Economic Reviews, Kerala Development Reports, Newspapers, Publications and Journals for analyzing the functions of ICTs sector and trends of female work participation rate in Kerala. Summary of the analysis of secondary data is given below:

- Kerala has first rank in the ‘Gender Development Index’ (GDI) in terms of Education and Health as compared to rest of India (Planning Commission of India, 2011). When one decomposes the GDI in terms of Education, Health and Employment the picture is quite different. The female work participation rate is ranked only 15 in Kerala compared to the rest of states in India. Impressive levels of female education and employment opportunities through globalization did not help for rapid increment of paid employment for women in Kerala.

- The study shows that Kerala ranked first in GEI (Gender Empowerment Index). At the same time, with respect to the factors which are closely relating to GEI; decision making power, mobility and control over money, gender biased violence our position is behind that of Gujarat, which had lower level of literacy rate.

- At the all India level, the Female Work Participation Rate (FWPR) increased from 19.7% in 1981 to 25.7% in 2001. But in Kerala FWPR decreased from 16.6% in 1981 to 15.3% in 2001 and also downward trend still persists. However, in Kerala women enjoy higher wage
rates for casual employment in both rural and urban areas than in other parts of the country.

- Occupational inflexibility of women, growth of violence against women: sexual violence, growth of dowry system and violence relating to dowry issues, domestic violence, rapid increase in the blind belief, etc. lead to the low FWPR in Kerala.

- Kerala ranked first in female literacy. Gender disparity is extremely low in the 10th standard and women exceeded men in Higher Secondary, Graduate and Post Graduate degrees in the Arts and science courses. However the strength of female students in the engineering colleges and technical educational institutions is less than 30% of that of the male students enrolled. In short term courses (one year or less than one year) like stenography, dress making, cutting and tailoring, secretarial practice and data preparation conducted by various technical institutions female students have good percentage (45% to 100%) in terms of enrollment.

- Clearly women have limited entry into ‘masculine’ specializations but dominate in professions identified as ‘feminine’. This orientation of women’s enrollment in Arts and Science colleges for Degree and PG courses reveal largely a reflection of their hope for white collared jobs. Also, the gulf migration study undertaken in 2010 found that only 10% of the 3752000 migrants from the state were women.

- Educated unemployment among the age group of 18-35 is clearly a serious problem in Kerala. In Kerala, female unemployment rate exceeds that of men. Educated but unemployed women are as high as 34% in urban areas compared to about 7% for men.

- Women’s job preferences have also played a role in constraining their opportunities for work. Nearly three-fourths of the unemployed women, according to the study of women’s education, employment and job preferences, reported that they remained unemployed because they had not been able to find jobs of their own preferences. Of the
factors constituting preference, social status and proximity to home are the most important.

6.3 Summary of the Analysis of Primary Data

For primary data collection and analysis, the Kerala economy was divided into two viz., Urban and Rural Kerala. Urban Kerala was represented through ICTs Parks and Rural Kerala through Kudumbashree ICTs units. Further the state of Kerala was divided into three viz., south Kerala, middle Kerala and north Kerala for data collection. The findings are as follows:

6.3.1 ICTs Parks in Kerala -Study Findings

- About 70% of the female employees working in the ICTs parks fall under the age group of 18-28. The data shows that the educated youth directly preferred jobs in the ICTs sector. The attractive salary and job flexibility were what attracted the youth to this field. The median age of women employees is 25.4 years.

- Majority of the employees were graduates and post graduates in various disciplines. Even among this, two-third of the employees were only degree holders with number of professional graduates being higher. Hence one can conclude that those employed at ICT parks held at least a minimum qualification of graduation further inferring that women with aforesaid qualifications have better chance of employability at ICTs parks.

- The monthly salary of the employees varies from Rs 5000 to Rs 100000. A notable point here is that at higher salary range, the numbers of female employees are very few. Mainly there were two reasons for the fewer number of female employees in higher salary scale in ICTs Parks in Kerala which can be surmised as follows

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(i) After three or four years of service in industry, the female employees tend to take long leave for pregnancy/delivery and child care. So, due to the gap in the service both the evaluation criteria as well promotion possibility of such employees are affected.

(ii) The reluctance of female employees to shift from one firm to another even when offered with higher pay scales.

- It was found that the salary scale of employees depended upon their experience, qualification, performance and flexibility to work in the ICTs field. The female employees were found to be well qualified but their performance and their flexibility to work was hindered by factors like lack of family support, pregnancy, inability to cope stress due to both family and workplace responsibilities etc. This also contributed for the meagre number of female employees in higher salary scales.

- It was asserted that, in Kerala, the female employees did not face any type of sexual harassment or discrimination on sex basis in ICTs field. All respondents who worked in the various ICTs units unanimously agreed that they are safe in their workplace. This may be due to the installation of the CCTV cameras, introduction of 24X7 toll-free support number on which employees can report about an emergency, use centralized technology to monitor the speed and movement of cab drivers etc. Further to ensure safety, women employees travelling during night have guards accompanying them and are not picked up first and dropped last, a system which is strictly being followed. At the same time, other types of problems related to work occurred in the ICTs field. Many of the respondents suffered from the burden of work. Another problem faced them is stress due to heavy demand for performance. On the other hand, some of respondents enjoy their life with ICTs jobs.

- Approximately 46% respondents belonged to the BPL families and they felt that the ICTs acted as a turning point in their life. It is clear
that ICTs job is a good factor for turn of educated youth from poor income status into sound living status. In fact, the respondents from ICTs jobs, especially, females from BPL families feel their life would become enjoyable and safe.

- It was found that the representation from the SC/ST/OEC castes is less than 1% in the ICTs parks and that of OBC is around 34%. Even though people belonging to different castes are getting representation in ICTs work force it is not according to their share in total population. The reason may be due to lack of awareness about the job opportunities the lack of professional standard of females from these castes in par with their colleagues from urban/general category.

- Around 70% of the respondents claimed that ICTs sector provides large employment opportunities and externalities for bringing improvement in their life and were also very satisfied with the work culture in the ICTs parks. This may be because of the energetic and vibrant interiors of the ICT parks, friendly working atmosphere, entertaining events and parties that are organized at regular intervals etc.

- While analyzing the factors influencing financial empowerment of the female ICTs employees in the context of functioning of the family it was found that the critical factors are Monthly salary income in rupees, Consumption Expenditure of family in Rupees and Decision-making power. The predictor variable ‘age of the ICTs worker’ has only very less impact on the criterion variable financial empowerment.

- In an attempt to examine the economic and social enhancement of female employees in ICTs enterprises it was found that:
  - Roughly 70% respondents assert that their income imposes positive influence on family income but it should be noted that the family gives more importance to providing education to their children, health care, dress and other facilities to family members.
Nearly 60% of the respondents felt that there is only slow or no improvement in the infrastructural development of the family.

Majority of the employees (80%) disclosed that the remuneration from ICTs jobs positively influenced their standard of living after joining the ICT’s parks. This is because after joining the ICT parks, due to the financial contribution of the female member into family there has been much improvement in the economic condition and standard of living of the family in general.

With regard to disposable income the consumption level of the respondents’ family has greatly improved. However, more than 55% of the respondents opined the savings level of the employees did not improve well. Main schemes of savings being accepted by the employees are chitties and saving deposits in banks.

About 77 % respondents kept good relationship with their friends, on various ranges. Even with the job schedule they are able to communicate frequently with their relations through modern communication technologies.

It is clear that the life of paid employees, in the ICT parks, with their families show a general improving trend, but some indicators like infrastructural development should still progress positively for best well-being of employees.

Analysis of the socio-economic enhancement of women through the employment opportunities in Information and communication technologies sector in Kerala established that the variables, Financial Status of the family, Savings level of the family, Infrastructure Development of the family, Standard of living of the family, Interaction with family &society and Involvement in the Cultural activities, are significantly supporting for enhancing socio economic status of female workforce at ICTs organizations and they have same distribution score.

- It was found that ICTs jobs are contributing towards the women empowerment with the improvement in different parameters of
women empowerment being statistically significant. In nut shell, the levels of improvement are significantly associated with empowerment parameters of ICTs women workforce the parameters being ‘Self Confidence’, ‘Economic prospects’, ‘Decision making Power’, ‘Status in the family and community’, ‘Support from the family for ICTs job’, ‘Contribution to family income’, ‘Freedom in household expenditure’, ‘Flexibility and Skill development’, and ‘Sharing the Household Responsibilities’.

- All the theories relating to empowerment argue that Decision Making power is the threshold for empowerment. The opinion of the respondents shows that more steps have to be initiated for the establishment of power for women in the decision making process in their home and society as roughly 45% of the responded opined that there was no or only slight improvement with respect to this parameter.

- Majority of the employees stress that the support from family members is inevitable for their own development. One of the reasons may be that the distance between native place and work place is a constraint before the female employees and so for working in the ICTs units the overall support and help from family members and society is needed.

- For the well-being of the family and for the growth in and structural changes of the society the work participation of youth is essential irrespective of their gender. To meet high cost of living of family and participation in national development, the utilization of educated females’ talent with that of the male counterpart is inevitable in a state like Kerala. The jobs in ICTs sector provide gender blind white collar jobs while utilizing their brain and providing financial support to women. Majority of workers were satisfied with their financial contribution to family income.

- In Kerala, the traditional culture dictates a male dominated society. Day-to-day expenditures and other expenses related to family are
absolutely managed by the male; such as husband, father or uncle etc. In the survey, the researcher observed that around 63% there was positive improvement in the freedom to handle household expenditure for female employees after being employed in the ICTs Parks.

- Women are still burdened with the traditional expectations of particular roles in family and in society. Many female employees felt that domestic responsibilities are affected by the longer working hours. Similarly, many women discontinued software work on becoming pregnant or having children. While a little less than 50% of the respondents felt that there was improvement with respect to this parameter after they were employed at ICTs parks the other half felt that there was no change or less improvement in their situation.

- The results show that the majority of survey respondents thought that they were empowered by ICTs but that for most of the women this empowerment remained at the intrapersonal level and did not extend to the interpersonal and societal levels.

- The survey shows that there are two interesting facts relating to political aspects: (1) the companies always oppose to politics or unions’ interference in the functioning of ICTs Parks and (2) the youth in the ICTs sector also have a negative attitude towards political influence in their work place. Nevertheless the respondents were happy with the payment, social security, team work, holidays, snacks, tours and other perks offered by IT companies at absence of trade unions.

6.3.2 Kudumbashree ICTs Units - Study Findings

- There are three types of ICTs based enterprise: (1) IT training units which provide IT training to Schools, (2) Data entry and digitization units which mainly create local digital content for public (and to a lesser extent private) sector organizations, but which may also do some other IT work and; (3) Hardware assembling & maintenance units, basic software and Web development work. More than 75% of
the employees were engaged in the DTP work of various government departments. DTP work requires mainly typing skills and basic knowledge of office software. This maybe the reason more number of women employees undertook DTP work rather than opting for teaching or hardware assembling both of which requires a different set of skills and also practice.

- Roughly 80% of the employees in Kudumbashree ICTs units belonged to the age group 18-28. It may be inferred that the educated female youth directly preferred to work and depended upon Kudumbashree ICTs jobs in rural areas. The high remuneration, white collar nature and status of the job etc maybe the factors which attracted the youth to this field. Moreover youth are more open to learning new skills and are faster in grasping knowledge about the use of ICTs. Middle-aged women are less technology friendly and hence reluctant to undertake the jobs. The average age of women employees in the Kudumbashree ICTs units was 24.22 years.

- 50% of the employees were degree qualified along with professional qualifications that includes training in type-writing, ITI, computer diploma etc. This may be because education forms basis for ability to cope up with new technologies which is an important quality in the ICT jobs and those who had already acquired class room computer training were more confident in taking up Kudumbashree ICTs jobs than those who lacked computer knowledge. Only three members had utilized the training programme of local bodies.

- The remuneration is based on work and the average monthly remuneration among the given Kudumbashree ICTs employees is Rs8263 which is higher compared to the remuneration in the other Kudumbashree non-ICTs sector in Kerala.

- Despite the success and strengths, various Kudumbashree ICTs units are constrained with several major and interdependent weaknesses such as Absence of regularity in the orders of work received, delay of
payment, absence of macro level co-ordination, lack of up gradation and modernization in training etc.

- The collected data shows that majority of respondents (approximately 93%) came from Below Poverty Line (BPL) Families. It is clear that Kudumbashree ICTs job is a good factor for improving standard of living of poor village women through employment. Another interesting point is majority of workers (73%) came in to this field after their marriage. This further propounds that Kudumbashree ICTs units are a good model for poverty alleviation, employment generation and thus empowerment of rural women as majority of the respondents argued that ICTs sector provides so many employment opportunities and externalities for the improvement of life of female employees.

- It was found that the representation from the SC/ST/OEC castes is less than 4% in the Kudumbashree ICTs parks. The reason may be due to lack of awareness about the job opportunities provided by Kudumbashree ICTs units.

- While analyzing the factors influencing financial empowerment of the female Kudumbashree ICTs employees in the context of functioning of the family it was found that the critical factors are Monthly salary income in rupees, Age of the Kudumbashree ICTs worker, Consumption Expenditure of family in Rupees and Decision-making power.

- In an attempt to examine the economic and social enhancement of female employees in Kudumbashree ICTs it was found that:
  - The data collected reveals that the ‘financial status of the family’ is highly influenced by the income from employment of the female member. Only 8.18% of employees felt unhappy with respect to this parameter. This is because their expectation is that there will be more monetary benefit occurring in the future.
  - In the case of ‘Infrastructure Development’ indicator, a bright picture can be inferred. Only 13.64% respondents were of the opinion that there was ‘no change’ with regard to infrastructural
development due to past financial liabilities of the family in the bank and other financial institutions.

- 98.18% of employees admitted that the paid job in the Kudumbashree ICTs units helped to improve their various dimensions of life such as: consumption, education of children, health status etc. In short, most of the respondents commented that good living atmosphere occurred after being engaged in the paid jobs.

- The ‘saving indictor’ shows growth at a very low rate. Around 67% respondents confessed that the saving rate increased but very slowly or that there is no improvement in this component. The daily growth in the cost of living is a main hindrance to the slow growth rate of saving.

- It is found from the Friedman test that the variables: Financial Status of the family, Infrastructure Development of the family, Standard of living of the family, Savings level of the family are significantly supporting for enhancing socio economic status of female workforce at ICTs organisations and they have same distribution score.

- Techno World III, near civil station-Kozhikode, is a Kudumbashree ICTs Unit initiated on 18/03/2004 by ten women belongs to below-poverty-line rural families. Life of the aforesaid organisation is a best example for economic empowerment of women Kudumbashree ICTs Unit.

- It was found that ICTs jobs are contributing towards the women empowerment with the improvement in different parameters of women empowerment being statistically significant. In nut shell, the levels of improvement are significantly associated with empowerment parameters of ICTs women workforce the parameters being ‘Self Confidence’, ‘Economic prospects’, ‘Decision making Power’, ‘Status in the family and community’, ‘Support from the family for ICTs job’, ‘Contribution to family income’, ‘Freedom in household expenditure’,
‘Flexibility and Skill development’, ‘Sharing the Household Responsibilities’ and ‘Participation in Political Activity’.

- Majority of the respondents’ (75%) were of the view that jobs in the ICTs sector have helped them to improve their level of thinking and confidence in life. They also held that they were contented with this achievement.
- Employment in Kudumbashree ICTs units brought considerable economic benefits by way of monthly remuneration for employees. The remuneration package it was found was higher than jobs in non-ICTs units in the private sector for women.
- 85% of respondents acknowledged that they experienced good reputation in the family and society after joining the ICTs jobs and around 56% were happy to acknowledge there was improvement in the support that they received from their family and community for their work participation in the Kudumbashree ICTs units.
- To meet high cost of living of family and participation in national development, the utilization of educated females’ talent with male is inevitable in a state like Kerala. Majority of employees (94%) were satisfied with their financial contribution to family income. An interesting point is that the female employees from BPL families got financial safety after their participation in the ICTs sector.
- In Kerala, 50% seats in Local Bodies reserved for females. In additions to this; the seats of President, Vice President and standing committees are also reserved up to 50% for females. An interesting point is, in last local bodies election, majority of female candidates came from Kudumbashree and related self-help groups. The collected data reveals that Kudumbashree ICTs units’ members participate in the political activities frequently. Having said this, it was found that there was a mixed opinion among the respondents with regard to improvement in developing political dimensions and their participation in political activities.
It is to be noted that there is high number in the ‘no change’ opinion group (in comparison to other parameters) with regard to the three factors for empowerment viz., (1) Decision-making power (19.09%), (2) Increased flexibility and skill development (16.36%) and (3) Household responsibilities (13.64%). The reason respondents were discontented with the decision making parameter was because the decisions continued to be absolutely controlled by guardians. With regard to the household responsibilities the dissatisfaction arose as the female employees had to suffer from tiredness as they are burdened with complete family responsibility along with the work in the Kudumbashree ICTs units.

\( \chi^2 \) test confirm that there is significant association between aforesaid empowerment parameters and levels of improvement with regard to the sample thereby substantiating that women’s employment in the Kudumbashree ICTs units are significantly supporting for empowerment.

6.4 **Suggestions and Conclusion**

- The role of women in procreation should not be a basis for discrimination. Many women discontinued software work on becoming pregnant or having children in the urban areas. There is no clear defined law to support women in the ICTs sector when they become pregnant. The government should implement leaves and other monetary directions to support them. There is a need for more explicit, detailed, fully structured and relevant regulations, guidance specific to the ICTs parks. Health risk assessments both pre-employment and periodic for employees should be conducted. Length and frequency of breaks should be adequate. Full time counselors are needed to strike a balance between physical and mental rhythm to synchronize body clock.
- The employees of ICT parks would work long-even continuous-hours in order to finish projects on time. So, implement attractive overtime
allowances, cultural programmes and tour packages for the employees in order to motivate them further.

- The distance between native place and work place is a constraint before female employees of ICTs parks. In Kerala, the ICTs parks are located in Kochi and Trivandrum. Provisions must be made for better accommodation facilities and also for family relocation.

- Along with their technical training, women in the ICTs parks desperately need training in how to promote themselves effectively and how to get over undue modesty and to create a positive attitude. At the same time, their male colleagues need training to recognize such behavior as appropriate to the competitive nature of the field, and not just some woman's "aggressiveness."

- In order to create a demand-driven ICT consumer community in rural areas, hindrances to accessibility must be significantly reduced either before or during the provision of the technology. This necessitates training and skills enhancement initiatives amongst other participatory development programs such as focus group discussions, direct interviews and workshops which shall be done by the local authorities through training centers. There is also a requirement for the development of professionals and teachers as viable intermediaries in bridging the digital divide experienced by low-literate or illiterate youth in school education programs in the rural areas which is of crucial importance.

- The study also indicates that as days passes the ICT enterprises are facing difficulties to get adequate inputs/resources, facing sustainability issues and also various challenges like delay of payment, technological obsolesces and stiff competition from the digital market Etc. It is the high time for the agency (Kudumbasree) and government to act and support this innovative ICT based women empowerment and poverty alleviation programme for sustainable Kerala future. The Local bodies have more rules to initiate for Kudumbashree ICTs units and regulate & control their functions.
➢ The Consortium of Kudumbashree ICTs unit which provides co-ordination of all functions of ICTs units in Kerala should make arrangements for spot payment to the units.

➢ To meet challenge of daily knowledge explosion in the IT sector, continuous training programmes, update of programmes and knowledge of women employees shall be done by the local authorities through training centers.

• It has been established that the enactment of a State Policy on ICT development does not guarantee the efficient and effective use of ICTs, especially by marginalized rural communities. Special efforts must be made to involve rural communities. This would require policies that encourage competition between various stakeholders in the telecommunications industry, policies that govern the costs of ICTs, and policies that govern connectivity in areas that are not commercially viable. As women form the majority of most rural households, special efforts have also got to be taken to involve women in development initiatives such as skill enhancement programs, participatory mechanisms and follow-up programs.

• To give the females belonging to the SC/ST/OBC/OEC an edge in competitive job market, the Government and Women's Welfare Associations must implement training and awareness programmes for them in district headquarters. The aim of such initiatives must be to improve the professional standard of these females and help them to be on a par with their colleagues from urban/general category. The same must be done for initiating the aforesaid females to participate in Kudumbashree ICTs units.

• Women generally have heavy responsibilities, particularly those involving their families, which result in time constraints. It is therefore imperative that ICTs are incorporated not only according to the information needs of women, but also in light of other activities and projects aimed at empowerment, e.g. women's NGOs, health centres, educational institutions, self-employment and entrepreneurial centres.
In this way, women would be able to experience the tangible use of ICTs.

- Conduct a feasibility study/needs assessment survey in order to determine the availability of physical infrastructure, and the gender dynamics/demographics of the community - percentage of women, age groups, occupations and education levels - before project implementation.
- Promote the participation of female beneficiaries in the planning and implementation of computer/internet initiatives from the initiation phase to the implementation phase.

The personal and academic process for this thesis has been by turn engaging and frustrating, fast moving and turgid, painful and delightful, but always and endlessly fascinating. It was challenging both personally and mentally to weave this thesis from the interdisciplinary strands that the complexity of empowerment invoked. Politics, statistics, culture, economics, sociology, gender, and policy at the least are elements in its construction and so were needed for its investigation and understanding. It was also needed to understand how empowerment was constructed by, implicated in, and influenced by all of these.

Therefore, in Chapter 1, the thesis was introduced with a short biography to contextualize itself within the theoretical positions that was taken. The chapter proposed the primary significance of the thesis in the attempt to find a connection between women’s empowerment and ICTs as posited by various authors throughout the world. The further helped in developing a unique questionnaire to collect data to test this connection. It investigates women’s experiences of empowerment since their training in and use of ICTs, using qualitative and empirical data to do so. In the methodology section, the thesis was positioned within the rights based approach to human development to demonstrate that most countries that are signatories to UN declarations and conventions on human rights, and women’s rights in particular, have failed their commitments. The chapter further describes
how feminisms, social constructivism, development alternatives, and forms of text are used in mass media, power, economics, and politics, and conspire to subsume women’s empowerment. This information is to contextualize women within the social, economic, and political constructs where ICTs are said to empower them.

The chapter brings to light the fact that social change resulting in women’s empowerment will occur as a result of their using ICTs. Governments have universally adopted this standpoint despite its lack of historical precedent, and in the face of the failure of other forms of communication and other technologies to produce such profound change. Women’s empowerment, synonymous with their human rights, is what has been sought historically by suffragettes, and women’s liberation movements. Gender equality in access to and equitable exercise of power, including “women’s interests” is central to society, and therefore an essential part of social and economic policy, is the basis of gender justice. Paradigmatic change necessarily needs to occur on personal, community, and structural levels to include ideologies, institutions, and practices that perpetuate or militate against gender equality and the full attainment of women’s empowerment.

Governments’ state that, through their learning and use of ICTs women becomes empowered to participate in making change. They specify the nature of that change in the need for women to challenge patriarchy, the entity identified by feminists as being instrumental in maintaining gender bias. They have instituted women’s empowerment through ICTs initiatives for them to challenge patriarchy, and in so doing, deterministically tie that change to technology.

The chapter, through theoretical perspectives and literature reviews, established that women’s empowerment is contingent upon fundamental social changes to be realized. The fundamental changes required hinge on a redistribution of power that would see the eradication of gender-based discriminations and the achievement of gender equality. This redistribution of power would see structural, cultural, political, and economic changes
demonstrative of gender equality. Statistical indices ought to include welfare, social values, personal security, equal opportunity of employment, equal pay, access to resources, political participation and representation, for example, which are experienced differently by gender. Exclusion of these and the voluntary and domestic work that is done largely by women, devalues the nature of and need for that work, and ignores its social and economic value to the nation and family. Without their inclusion, the economy is structured as something outside of, rather than intrinsic to the social realm.

Women’s economic empowerment includes their working with ICTs, which has implications in workplaces, structures, skill definition and acquisition, and education, which are all affected by gender perceptions and practices, and patriarchy. Recent research and currently available data show that generally women are not reaping the proposed rewards of empowerment. Concurrent changes through social and economic policy and appropriation, for example, manifest their detrimental effects on the status of women’s work and its remuneration, further degrading them. The imposition of social and economic policy changes has produced a remarkably similar constellation of effects throughout the world. Of primary concern is that men still control structural, institutional, and political power over women’s lives: patriarchy and the gendered status quo prevail.

The chapter also throws light on women’s work and ICTs in relation to skills upgrading and education. In this discussion, it was found that the various definitions of work and skill morph and that as work and skill become associated with the female they are devalued. Such redefinition of work and skill allows that which is male-associated to be vaporized over that which is female-associated, which perpetuates the notion of male supremacy over women. The redefinition and revaluation of work and skill result in, and maintain masculinist workplaces and work hierarchies that are male-dominated. Therefore, the social changes required for women’s empowerment involve, in part, the severance of such invalid, restrictive, and unconstructive dichotomies that operate to the detriment of both sexes.
Chapter 2 gives a detailed description about women in Kerala in general and their empowerment status in particular. While taking an effort to describe the features of Kerala economy, a clear picture about the labour markets and employment opportunities for women has been depicted in this chapter. Gender wise literacy rates, educational status and demographic transition are portrayed with the help of specific data and graphs. The chapter concludes that the work participation of females is declining even though female education in the state is making headway. Faulty education system in the state of Kerala, predominance of arts and science colleges with conventional courses, increasing rate of attack against women, very minimum rate of female migration, women being unable to find jobs of their own preference, religious beliefs, limited entry of women in to ‘masculine’ specializations but domination in professions identified as ‘feminine’ traditional concepts, inflexibility of women in labour market, gender discrimination etc are some of the factors identified leading to low work participation of women. The male migration have affected the reservation wages of many women in the upper and middle classes of Kerala, many of whom choose to remain unemployed until they find professional jobs to their liking.

Chapter 3 deals with Information and Communication Technologies (ICTs) in Kerala. It shows the impact of policies, economic rationalism, workplace restructuring, and the effects ICTs can have in a workplace. There are some important notions generally associated with ICTs that also have implications for women and their empowerment. E-democracy, e-commerce, e-government, e-governance, and the information superhighway and society all have been cited as empowering spaces for women. There is evidence that shows that women do have a positive effect in politics, accountability, governance, corruption, transparency, and representation, but this essential knowledge is not maximized and instituted as central to human and national development. The realisation of that knowledge is foundational to women’s empowerment. What prevents that realisation is
patriarchy; hence challenging patriarchy is the basic and ultimate goal of women’s empowerment.

Whilst there are many advantages to ICTs, their integration into our lives also brings contentions about globalisation, trade, freedom of information, human rights, development, colonisation, and censorship, for example, to the fore. International and national laws and conventions are formulated largely for the convenience of inter- and transnational corporations and for political purposes. The processes of these are generally undertaken by men and male-dominated bodies as worldwide, men predominate in decision-making and power-broking bodies. ICTs for women’s empowerment proponents acknowledge therefore, that women’s decision-making capacity is essential for their empowerment. They claim that ICTs enhance that capability. The endurance of male-domination in decision making and power-broking bodies, patriarchy in action and in situ, strongly suggests that non-ICTs related factors are more powerful and prevalent and are apparently not amenable to the claimed benefits of ICTs.

Some of the elements of the change to which women empowered through ICTs are supposed to aspire are political and include equal gender representation in power broking and decision-making bodies, consideration of the differential impact of social and economic policies on men and women, workplace structures and work relations, and discourses that morph meanings and turn them to their own means. ICTs may be involved in the processes required to do so, but not in the making of the decision upon which equality depends. Only people can make the ethical decision required.

In short, Chapters 1-3 constitute the first part of this thesis. In them, the circumstances under which ICTs operate in the real world are presented and contextualize the women who participated in the data collection for this thesis. Chapters 4-6 constitute the second part of this thesis. In them, the analysis of the collected data is presented and discussed.
Chapter 4 and 5 constitutes processes for the construction, trialing, and dissemination of the questionnaire, and socio-economic analysis of female employees in ICTs parks and ICT Kudumbashree units in Kerala.

The study presents findings from two various ICTs initiatives in Kerala, ICTs Park and Kudumbashree ICTs Units, showing significant impacts on Women’s employment, income, social roles and empowerment of poor women. ICT initiative is “gender blind” and pursued within the globalised, competitive context of an increased role for markets and its ‘flexibility’ has generally reinforced gender inequalities. By contrast, a gender focused ICTs initiative involving significant state intervention has brought about positive changes to livelihood outcomes and empowerment of women.

It can generally be concluded that Information and Communication Technologies can be effective instrument for increasing choices for women particularly, rural women, for multifaceted empowerment. The ICTs can be effective tools to expand the knowledge among the rural women and that can enhance their abilities to negotiate for their resource share and participation. But it would be important to review the potential for ICTs in two broad approaches namely, their application directed to rural women as primary users of this technology and their application directed to improve the quality of life in rural communities that would assist rural women to improve their lives.

Information and Communication Technologies (ICT) are for everyone and women have to be an equal beneficiary to the advantages offered by the technology, and the products and processes, which emerge from their use. The benefits accrued from the synergy of knowledge and ICT need not be restricted to the upper strata of the society but have to freely flow to all segments of the women population. The gamut of areas in which ICT can put a greater control in the hands of women is wide and continuously expanding, from managing water distribution at the village-level to standing for local elections and having access to lifelong learning opportunities. ICT in convergence with other forms of communication have the potential to reach those women who hitherto have been not been reached by any other
media, thereby empowering them to participate in economic and social progress, and make informed decision on issues that affect them.

The study explores the avenues created by ICT enabled networking processes for women in the areas of empowerment and governance, the hindrances faced in engendering of these processes and goes on to suggest ways to ensure that greater benefits accrue to women in a distributed manner. Women are the source of wealth in any given culture or community because of the numerous roles they play. The entire study comprehensively looks on their relevance for the global prosperity with their active role in achieving the target. This study concludes that ICT as a form of new technology are socially deterministic, with varied implications for women in terms of employment and empowerment dependent on the context within which the ICTs are utilized. It shows how ICT-based initiatives empower women.

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