Chapter Five

Conclusion and Recommendations

5.1 Introduction

This chapter consists of four major parts such as conclusion, recommendations, limitations, and future research. The conclusion deals with highlights of the major findings of the research. The recommendations are the possible solutions proposed to minimise or completely solve the problem(s) based on the findings. The limitations incorporate deficiencies of the study and future research suggests potential future actions in order to answer the limitations of the study that will fill up the prevailing gaps in the area of research.

5.2 Conclusion

The present study investigates diverse individual and organizational factors (antecedents) affecting the effective use of ICT in information/knowledge creation, storage, dissemination, and application among ICT facilitated secondary schools in the NCP of Sri Lanka and in sequence it will look into the impact of ICT use on individuals' job performances. The provision of ICT in school level has been a national policy in Sri Lanka like many other countries, which aims to answer the recent widening of digital divide in future. However, the noble effort has not been fully successful due to many clearly visible and non visible factors. The present research mainly focuses to give them a considerable attention.

Overall results for the use of ICT for creating, storing, disseminating, and applying information/knowledge reveal that it has been very low among school teachers in the province. According to the analysis of frequencies, very low number of teachers as a whole is using ICT heavily while 12 per cent reports moderate use and a large number of teachers nearly 72 per cent reports low use of ICT in creating, storing, disseminating, and applying information/knowledge at work. This situation is in fact a great menace to the education and in turn to the national development of Sri Lanka.

The low level of ICT use is evidenced by several factors in this study, which are poor school planning, poor leadership support, lack of ICT infrastructure, and poor ICT competency towards the use of ICT in schools. However, attitudes towards the use of ICT are being moderately positive among the participants that has been a positive remark for the educational and rural development of the area. Certainly, attitudes could drive organizations towards success as well as would make positive changes for a sustainable development.

Confirming the results of the mean score analysis, the analysis of Pearson correlations presents strong positive correlations between all five antecedents and the use of ICT, which have been significant at .01 level. Results found that ICT infrastructure, leadership support, school planning, ICT competency, and attitudes are respectively affecting the use of ICT for creating, storing, disseminating, and applying information/knowledge at work. However, a moderate correlation is found between ICT use and individuals' job performances that suggests the policy and decision makers, administrators, and other stakeholders of the present secondary education system in Sri Lanka to strengthen all the necessary requirements for the effective use of ICT in order to gain its maximum benefit. Otherwise the provision of ICT facilities without developing these individual and organizational factors is completely wasting time and resources and it is just like planting a tree without fertilizing and watering adequately.

Further, ANOVA reveals highly significant comparative information of the study that would narrow down the holistic view of the findings to the most appropriate group of people. As a result, it will ease policy and decision makers to get the right decisions at the right times for the right people. Firstly, it can be seen that ICT competency and positive attitudes towards ICT are low among older staff than the younger staff. Older staff also feels that school planning and leadership support towards ICT, and ICT infrastructure are low in their schools than it feels to the younger staff, which have led older staff to a very low use of ICT for managing information/knowledge at work than their opposite counterparts. However, the comparative findings between older and younger staff can be seen in many

organizations as younger staff is generally born with technology. Thus, it is very easy for them to adjust to the new technology than the older staff.

Secondly, Male staff reports higher level of ICT competency and positive attitudes towards ICT than female staff that has led males to make use ICT than females. Females also feel that school planning, leadership support towards ICT and ICT infrastructure are lower in their schools than it feels for males. It can be seen in most industries at their earliest stages that females by nature requires fully attentive guidance in order to make effective use of new technologies like ICT than it required by males. All things considered, females use very low level of ICT than males as found in the study.

It shows a considerable difference between staff with and without ICT education. Overall, staff with ICT qualifications found that they have higher ICT competency, considerably higher positive attitudes, relatively higher satisfaction on school planning, leadership support, and ICT infrastructure than the staff without ICT qualifications. Further, it reveals a clear difference in the use of ICT for creating, storing, disseminating, and applying information/knowledge, which is comparatively higher among the staff with ICT education than the staff without ICT qualifications. The finding brings a significant fact for the school administrators, policy and decision makers to rethink on teachers' ICT education as it can significantly impact on the school education.

Similarly, it is important to know that the level of English language proficiency has also been a critical factor on the use of ICT for creating, storing, disseminating, and applying information/knowledge among school teachers. It shows that the level of ICT use depends on the level of English language proficiency. Thus, it suggests that the improvement of English language proficiency among school teachers would make a great use of ICT at work.

Another important result is found with regard to ICT training. The most striking finding is that the majority of teachers (N=82) suffer with no ICT training while

teachers who had already received any kind of ICT training (N=63) reveal that the trainings are not adequately contributing to the effective use of ICT in the study. It suggests that the ICT trainings should be streamlined in order to provide a better knowledge for an effective integration of ICT in schools.

The comparative analyses also reveal that younger staff, male staff, staff with ICT education, staff with high English language proficiency, and the staff with ICT training show higher impact of ICT use on job performances than their opposite counterparts.

It is appropriate to note that the research discloses potential antecedent factors towards the use of ICT among school teachers in the NCP. The most highlighting factors are lack of time, workload, inadequate financial resources, lack of public institutions to learn ICT, and fear towards new technologies.

5.3 Recommendations

In summary, the research has recognized that there is a huge problem in using ICT in the ICT facilitated secondary schools in the NCP of Sri Lanka. The findings have revealed the factors affecting the problem and its impact on individuals' job performances. All things considered, the present study suggests implementing the following recommendations to solve the problem. The recommendations are made under organizational level and policy level that would more or less answer the problem and in turn enhance rural as well as national development of Sri Lanka.

5.3.1 Organizational Level

In response to the research findings, the following recommendations can be made in the short run as well as in the long run to solve the problem. However, recommendations at the organizational level are highly useful and essential as it can focus the right group of people at the right time.

- Organizing workshops, seminar series, and different programmes to build positive attitudes towards ICT.

- Providing opportunities for all staff to participate ICT training programmes that offer at the national level and organize organizational level ICT trainings.
- Planning the use and improvement of ICT at the school for at least next five years.
- Establishing an ICT committee for each school to support, motivate, and assess the use of ICT.
- Introducing a periodic review and reward system to promote the use of ICT at the schools.
- Allocating a time slot(s) in the individual time table as necessary for self studies.

5.3.2 Policy Level

It is obvious that the interventions at the government level are an essential requirement to improve the use of ICT in schools. Therefore, the following recommendations are made aiming to answer the problems with a strong hand.

- Increasing financial allocations for a better supplement of ICT infrastructure.
- Increasing the number of ICT training centres at the provincial level and organizing effective ICT training programmes.
- Focusing special attentions on improving leadership capabilities among school principals and ICT centre managers/coordinators.
- Planning and setting targets for the effective integration of ICT in schools.
- Introducing reward systems at the national level to identify schools where ICT has been highly and effectively integrated in schools.
- Establishing foreign affairs in order to track effective strategies to improve the use of ICT in schools.

5.4 Limitations of the Study

The present study employs several limitations with regard to the empirical setting and design. First, the empirical investigation is restricted only to the NCP of Sri Lanka. Sri Lanka is consisting of nine provinces and which are in different levels of

developments. Although NCP is the largest (10,724 km^2) among all, it is generally known as one of the less developed rural provinces in Sri Lanka. Thus, the findings coming from this empirical investigation may not be able to generalize to the entire Sri Lanka.

Second, the sample is solely drawn from the government schools located in the area. The findings therefore would not be representative to the situation in other categories of schools.

Third, the research framework can be criticized because it is not a complete model. It is difficult to study a complete model due to the limitations of any study and it can be expanded to study various other aspects.

5.5 Future Research

The limitations of the present study create a stable platform for future researchers to address the issue in a more systematic manner. The following points describe possible ways of future research.

- As this is an initial attempt of investigating the use of ICT in the ICT facilitated secondary schools of the NCP, replications at national level are essential to recheck the problem with diverse aspects.
- The investigation can be extended among different categories of schools that would make a better sense of comparison.
- Longitudinal studies are being a must to identify the nature of the problem over time.
- Diverse aspects of antecedent factors can be considered in the research model in order to make it more effective.
- The impact of ICT can be viewed under individual and organizational level variables that makes the finding more useful.

5.6 Summary

Overall, the present research has found that the use of ICT in secondary schools in the NCP is low and several individual and organizational factors have being affecting on this long standing issue. It is important to note that both organizational and policy level intervention in various aspects would be useful in solving the problem. The study is limited to the secondary education in the NCP and only the most prominent causes towards the problem have been investigated. Thus, longitudinal investigations in diverse aspects of the problem would be appropriate.