Acknowledgements

This dissertation would not have come to the form and shape it is today without the help and support of several people whom I would like to thank and to whom I am happily in debt.

First of all, I would like to thank my supervising guide, Dr. N. Unnikrishnan Nair, Formerly Professor, Department of Statistics, Cochin University of Science and Technology (CUSAT) for supporting, guiding, and working with me for the last four years. I am very grateful for his patience, persistence, encouragement, and optimism. He has been very generous and, under his supervision, I have learnt not only about the topics this thesis deals about but also his personal experiences helped me so much in pursuing my research.

I wish to express my sincere gratitude to Dr. K.C. James, Head, Dr. N. Balakrishna, Professor (Formerly Head), Department of Statistics, Dr. K. R. Muraleedharan Nair, Dean, Faculty of Sciences (Formerly Head and Professor, Department of Statistics), CUSAT for the support extended to me during the research period. I am also thankful to Dr. P. G. Sankaran, Associate Professor, Department of Statistics, CUSAT for his valuable suggestions and help, to complete the work.

I also take this opportunity to thank all the faculty members of the Department of Statistics, CUSAT for their timely advice and suggestions during the entire period of my research.

I express my earnest gratitude to the non-teaching staff, Department of Statistics, CUSAT for the co-operation and help they had rendered.

Discussions with my friends and other research scholars of the department helped me in some situations during the course. I express my sincere thanks to all of them for their valuable suggestions and help.
I remember with deep gratefulness all my former teachers.

Deep appreciation and sincere gratitude is expressed to my present employer, Department of Economics and Statistics, Government of Kerala for permitting me to pursue this study. I gratefully acknowledge the constant encouragement and help rendered by the Director and my colleagues in the Directorate of Economics and Statistics, Thiruvananthapuram.

I would like to acknowledge the Council of Scientific and Industrial Research, CSIR, for the financial support rendered at the initial stage of my research.

I am deeply indebted to my beloved father, mother and my brothers for their encouragement, prayers, and blessings given to me. I am also indebted to my wife for her tolerance and constant encouragement for the timely completion of the thesis.

Above all, I bow before the grace of the Almighty.

Vineshkumar B.