
Acknowledgments

All praises and thanks to 'God' the almighty, the merciful, and the omniscient whose blessings enabled me to complete this thesis in the present form.

I have worked with a number of people whose contribution in assorted ways to the research and the making of thesis deserve special mention. It is a pleasure to convey my gratitude to them all in my humble acknowledgement.

Words are not sufficient for expressing my intensity sentiments. So, most humbly I express my deep sense of gratitude and indebtedness to my revered supervisor **Dr. Devendra Kumar**, Assistant Professor, Department of Statistics, Central University of Haryana, Mahendergarh, India, who has always been a source of inspiration, whose constructive criticism, affectionable attitude, strong motivation and constant encouragement have added greatly to the readability and relevance of each chapter. I am grateful to him, who unsparingly helped me by sharing the in-depth knowledge of the subject, which has improved and made presentable in hand Thesis work. I will remain ever so grateful to him for his kindness as a teacher in the real sense of the term. I feel myself very fortune to work under his able supervision.

My special thanks to Dean. Department of Statistics, Central University of Haryana, Mahendergarh, India, for his cooperation, encouragement and furnishing all necessary facilities to complete this work in time.

I place on record my special sense of gratitude to **Dr. Kapil Kumar**, **Dr. Manoj Kumar** and **Dr. Ravinder Singh**, Assistant Professor, Department of Statistics for their moral support and wholehearted cooperation.

I am also grateful to my seniors, **Mr. Indrajeet Kumar** and **Mr. Anurag Pathak** for their co-operation and encouragement to present this work.

Sincere thanks to my colleagues and friends **Ms. Priya Yadav**, **Ms. Anita Kumari**, **Mr. Bishal Diyali**, **Mr. Sandeep Kumar**, **Ms. Nisha Moar**, **Mr. Praveen Maurya**, **Mr. Vikas**

Sahrawat, Mr. Himanshu, Ms. Jyoti Yadav and all those persons who helped me in the completion of this work.

Words fail me to express my indebtedness and gratitude to my parents **Mr. Moti Lal** and **Mrs. Koushlya Devi** for their unequivocal support throughout, as always, for which my mere expression of thanks likewise does not suffice. Their unflagging love, energetic support and persistent confidence in me, has taken the load off my shoulder and clearing the path towards thesis completion.

Most of all, I take the opportunity to thank my younger brothers **Puneet Kumar** and **Pulkit Kumar** for their grace. Their enthusiasms and heart-warming welcome will always remain fresh in my memory.

I would like to thank everybody who was important to the successful realization of thesis, as well as expressing my apology that I could not mention them personally, one by one.

Finally, I would like to thank **Council of Scientific and Industrial Research** and **University Grant Commission** for awarding fellowship.

(Maneesh Kumar)

Roll Number: 180666