FACTOR AFFECTING FOR PROPERTY BASED CRIME IN WESTERN PROVINCE

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DECLARATION

I declare that this is my own work and this thesis does not incorporate material without acknowledgement previously submitted for a Degree or Diploma in any other university or institute of higher learning and to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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The above candidate has carried out the research for the Master dissertation under my supervision

Name of the supervisor : Prof. T.S.G. Peiris

Signature of the supervisor : Date : 23/07/2018

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ABSTRACT

Less attention has been given for statistical analyses related to crime data in Sri Lanka collected at different police stations and it is high time to give priority for such analyses and derive non subjective statistical inferences. The purpose of this study was therefore to identify the significant factors affecting property based crime in the Western province of Sri Lanka. The response variable was nominal and binary category namely: (i) crime against person ('against person') and crime against property ('against property'). The four explanatory variables considered are: (i) time (day vs night), (ii) power in political party (previous government vs current government), (iii) senior police divisions (10 divisions), and (iv) strength of police. Of those four variables, the strength of police was the only continuous variable and other three were considered as categorical variables. The necessary data from 2013 to 2017 were acquired from the crime reported division in Sri Lanka police on yearly basis. Based on the binary logistics models fitted for each variable, it was found that all four variables: time, power in political party, strength of police and senior police divisions were significantly influential ($p < 0.05$) on type of the crime. Crime against property was more likely to be occurred during night time than day time and also, crime against property was more likely to occurred during previous government than the current government. When the variable of strength of police was considered there was significantly lower occurrence of property based crimes for the high mean strength of police stations than that for low strength of police stations. There is a significant difference in the probability of occurrence of property base crimes among ten senior police divisions and among them, senior police divisions of Colombo Central and Colombo-South indicated high occurrence of property crimes. When all four variables were considered, only time, power in political party and strength of police were found to be significant ($p < 0.05$) on the occurrence of crime. When all three significance variables were considered the probability of 'against property' is 3.987 times higher than that of 'against person'. The statistical inferences obtained by this study is immensely useful for planning to reduce the crime in Western Province and it is recommended to carry out similar studies in other areas as well.

Keywords: Against Person, Against Property, Binary Logistics Regression, Crimes, Strength of Police

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LIST OF ABBREVIATIONS

CRD	-	Crime Reported Division
SP	-	Senior Police
GLM	-	Generalized Linear Model
SPSS	-	Statistical Package for Social Sciences
DIG	-	Director Inspector General
SDIG	-	Senior Director Inspector General
CPTED	-	Crime Prevention Through Environmental Design
IRC	-	Island wide Registered Criminal
NYPD	-	New York city Police Department
UCR	-	Uniform Crime Reporting
FBI	-	Federal Bureau of Investigation
IGP	-	Inspector General of Police
MPD	-	Mirihana Police Division
LR	-	Likelihood Ratio