Survey Report on

OBSERVATIONS OF THE HELMET AND SEATBELT WEARING BY M2W AND CAR USERS

Submitted to:

JP RESEARCH, INC.

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Submitted by:

MDRA
People Who Make The Difference

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LIST OF ABBREVIATIONS

CCTV	Closed-Circuit Television
CRS	Child Restraint System
GPS	Global Positioning System
Km	Kilo meter
MDRA	Marketing & Development Research Associates
MoRTH	Ministry of Road Transport and Highways
MUV	Multi Utility Vehicle
MVA Act	Motor Vehicle Amendment Act
M2W	Motorized Two-wheeler
SUV	Sports Utility Vehicle
SPSS	Statistical Package for the Social Sciences

CHAPTER1

INTRODUCTION

1.1 Introduction

As per Ministry of Road Transport and Highways (MoRTH) report of Road Accidents in India- 2018, India unluckily topped the list among the countries where fatality rate is high due to road accidents, accounting for 11 percent in the world. Certainly, many reasons from government policy makers to individual road users, are contributing to the same including poor road infrastructure to negligence of not wearing safety devices such as helmet or seat belt while driving on roads.

As per MoRTH, out of total 43,614 accidents of motorized vehicles during 2018, two-wheelers accounted for the maximum share of 34 percent of the accidents and car/jeep/taxi/van accounted for 24 percent. Further, 29 percent of deaths caused due to not wearing of the helmet and 16 percent due to non-wearing of seatbelts.

Considering the road safety of users, as per Motor Vehicle Amendment Act, 2019 wearing safety devices such as helmet and seatbelt have been made mandatory and increased penalties imposed for violation of the regulation.

- The penalty for not wearing seatbelt increased from Rs.100 to Rs.1,000
- The penalty for not wearing helmet increased also increased from Rs.100 to Rs. 1,000 along with disqualification for license for 3 months

JP Research, Inc, is a pioneer in scientific crash investigations with expertise in crash investigations, crash data analysis, crash reconstructions, road safety surveys and audits and other road safety research activities.

In order to understand the road user behavior w.r.t wearing safety devices, JP Research, Inc commissioned this observation study to **Marketing & Development Research Associates**. The observation study was conducted in five cities – Ahmedabad, Coimbatore, Jaipur, Kolkata and Pune.

1.2 Objective of the study

The key objective of the survey was to conduct observations of the seatbelt (cars) and helmet (M2Ws) usage in urban and rural areas in different parts of the country.

The sub-objectives of the survey were to assess following:

- *To observe and check the usage of seatbelt by car drivers and passengers*
- *To observe and check the usage of helmet by motorized 2W riders and pillion riders*
- *To observe and check usage of mobile phone (calling/ texting) while driving cars & M2Ws*
- *To check the effect of enforcement on seatbelt and helmet usage*
- *Profiling of the car and two-wheeler users based on age and gender*

CHAPTER 2

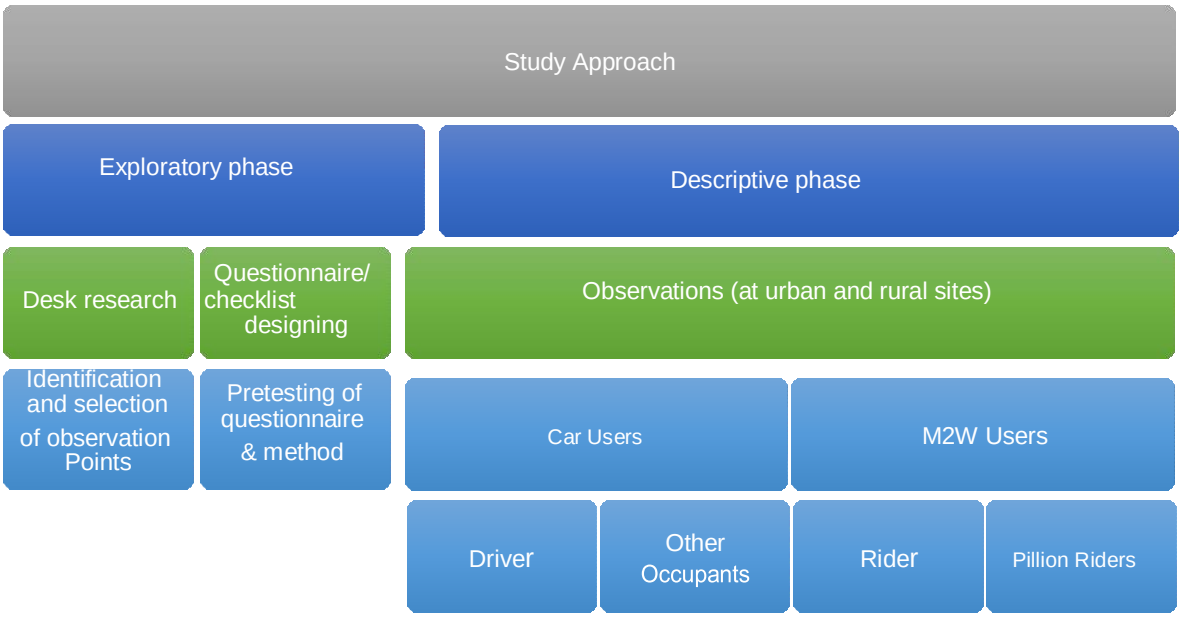
RESEARCH METHODOLOGY & SAMPLE SIZE

2.1 Research Methodology

MDRA methodology and plan for the administration of the survey was designed to maximize the utility of the information gathered through observations.

Based on the objective of the survey, the methodology was divided into two phases:

(1) Exploratory Research
(2) Descriptive Research



PHASE-I: EXPLORATORY RESEARCH

- **Step I: Desk Research**
  Desk research was conducted to get thorough understanding of the subject matter and development of the parameters for the observation. Further, city wise urban and rural locations were identified for conducting observation exercise. Further, amendments of Motor Vehicle Act 2019 were studies along with rule and regulations w.r.t helmet and seatbelt wearing in survey cities.

- **Step IV: Preparation of survey instruments**
  Based on parameters client brief and desk research, observation checklists for motorized two-wheelers and car users was prepared and pretested before finalization in consultation with JP Research officials.

PHASE-II: DESCRIPTIVE RESEARCH

- **Step VI: Observations (at rural and urban locations)**
  After finalization of observation checklists, observation of motorized two-wheelers and cars was conducted at pre-decided locations.

  The observations were conducted for all occupants of the following vehicle categories:
  - All occupants of Cars: Cars include SUV, MUVs, Sedan, Hatchback etc.
  - All occupants of M2Ws: Two-wheelers such as Motorcycle, Scooter/Scooty, Moped etc.

Before the start of field survey, briefing, training and orientation of observation team was conducted in respective cities. The observational field survey was conducted **between 9th Feb - 22nd Feb 2020.** During field survey, MDRA team was accompanied by JP Research officials to check and see how field work was conducted.

Following approach was adopted during selection of location and conducting observations of M2Ws and cars.

- Observations were taken for stopped traffic in urban area and stopped/ moving traffic in rural area at traffic signals/ intersections while standing on roadside
- For urban areas, survey was conducted at 2 sites; place where CCTV is available for traffic monitoring/ enforcement and another location where CCTV is not available. Similarly, one location was selected for rural areas. However, in case of Ahmedabad and Coimbatore all the urban locations where CCTV cameras were installed were selected.
- The observation exercise was conducted for four times at each site i.e. peak hours and non-peak hours on weekdays & weekends
- Vehicles that use free left-hand turn slip lanes were not observed as vehicles were not stationary for a sufficient period of time to allow complete observation
- Mobile phone usage was observed just when the vehicles start accelerating from the traffic signal or when vehicles are decelerating to stop at the traffic signal.
- In case of SUVs/ MUVs having 3rd bench seats in perpendicular format, observations for first 2 bench seats was performed.
- In case of cars, observation for occupant in the lap of other passengers was performed for front bench seats only
- School vans or similar vehicles were not observed and skipped

Observations at urban sites:

- At each site, whenever there was red traffic signal, observation for first 2-3 vehicles were performed. Same process was followed for every red traffic signal on junction.
- In the case of Cars:
  - For safety reasons, the observer was standing on the left side of road/ road median towards moving traffic from where visibility of vehicles was clear
  - Observe took a closer look for observing car occupants starting from driver, front seat passengers and then taking a quick round of vehicle while observing all other occupants while car was stopped at traffic signal.
  - After observing all the pertinent information, observer noted all details in observation sheet.
  - Observer repeated the same process after completion of entry in observation sheet.
- In case of M2Ws:
  - For safety reasons, observer stood on the left side of the road towards moving traffic from where visibility of vehicles was clear
  - For stopped traffic, observer took a close look to observe first 3-4 M2Ws.

- After observing all the pertinent information, observer noted down all details in observation sheet.
- Observer repeated the same process after completion of entry in observation sheet.

- A similar approach was followed to observe cars and M2Ws in rural sites

➢ **Step VIII: Data Coding, Entry & Validation**

Based on the content of observational sheets, a coding plan and data entry formats were prepared and implemented. The primary data was compiled and punched under close supervision of senior researcher. Entered data was cleaned, sorted and validated using data analysis software-SPSS.

➢ **Step IX: Data Analysis**

A detailed analysis was undertaken to prepare this report. Frequency analysis and cross tabulation were employed in present the findings mentioned in this report.

2.2 Sample Coverage

Based on the above, the study was conducted across five cities in India: Ahmedabad, Coimbatore, Jaipur, Kanpur and Pune. Against a sample of 30,000 vehicles, total 32,176 vehicles were observed across 5 cities i.e. 15,972 Cars and 16,204 M2Ws.

City wise, sample along with list of locations is provided below:

Table 2.1: Sample Size achieved

City	Location Type	CCTV Camera	Observation Location	Cars	M2Ws	Total
Ahmedabad	Urban	Yes	Expressway Junction	1072	1033	**2105**
Ahmedabad	Urban	Yes	Pakwan Junction	1132	1105	**2237**
Ahmedabad	Rural	Yes	Aslali Post	1081	1068	**2149**
Ahmedabad Sub Total				**3285**	**3206**	**6491**
Coimbatore	Urban	Yes	Womens Polytechnic College	1076	1045	**2121**
Coimbatore	Urban	Yes	Sai Baba Kovil Junction	1078	1097	**2175**
Coimbatore	Rural	No	Mettuplayam Junction	1092	1174	**2266**
Coimbatore Sub Total				**3246**	**3316**	**6562**
Jaipur	Urban	Yes	B2 Bypass Jaipur	1032	1034	**2066**
Jaipur	Urban	No	NRI Chouraha (Partapnagar)	1102	1032	**2134**
Jaipur	Rural	No	NH48 toward Ajmer	1034	1042	**2076**
Jaipur Sub Total				**3168**	**3108**	**6276**
Kolkata	Urban	Yes	ATC Bose & DL Khan Road Crossing	1024	1135	**2159**
Kolkata	Urban	No	SBI Purvachal Chourahi	1056	1087	**2143**
Kolkata	Rural	No	Rajpur Crossing	1033	1108	**2141**
Kolkata Sub Total				**3113**	**3330**	**6443**
Pune	Urban	Yes	Parihar Chowk	1107	1069	**2176**
Pune	Urban	No	Navale Bridge Junction	1016	1054	**2070**
Pune	Rural	No	Khadi Machine Chowk	1037	1121	**2158**
Pune Sub Total				**3160**	**3244**	**6404**
Total				**15972**	**16204**	**32176**

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