

The Components of Fitment Survey Method for Automotive Industry

Mr Lokesh Chola, Research Scholar, Shobhit University Meerut, Lokeshh2011@gmail.com

Dr. Abhishek Kumar, Assistant Professor, Shobhit University Meerut, abhsihekkumar@shobhituniversity.ac.in

Abstract- Survey could be a tool of analysis that may be a standout amongst the foremost very important space of estimation in applied social analysis. The wide region of survey in analysis embraces any estimation ways that include creating inquiries of respondents. A study is something structure a brief paper-and-pencil feedback to associate intensive in-depth interviews however all survey ways would like respondent to grant feedback that created not possible just in case wherever respondent is object for example to understand the market share and fitment pattern in particular region of any tyres manufacturer for that Survey of Tyres fitted in vehicles recorded through survey, especially space for this survey itself check the response and reportable it ,therefore would like of associate Fitment Survey Tool which needs to reportable the feedback wherever respondent unable to grant feedback.

Keywords —Survey Method, Fitment Survey Method, Heavy Commercial Vehicle, PCR, LCV, SCV and Tyres

I. INTRODUCTION

The survey is a non-experimental, descriptive analysis technique. Surveys are useful once a man of science has to gather data on phenomena that cannot be directly determined. Throughout a survey researchers sample a population. Basha and Harter (1980) state that "a population is any set of persons or objects that possesses a minimum of one common characteristic". Surveys are conducted faster and cheaper compared to different methods of primary data assortment like observation and experiments. Primary data gathered through surveys is relatively straight forward to analyses. Survey is Tool that is employed marketer to assemble information and analysis the result, it is completely different from other survey technique as a result of during this respondent are object that unable to relinquish feedback through Questionnaire and Schedule.

Fitment Survey is a statistical tool where we find out the types of product available in market or product offerings of other competitor. It help to found the new product offering by Competitor also help in asses the market share ,share of customer, fitment trends and consumer choice. Fitment survey is used for training the sales/field force and new joined to understand the current market trend of fitment, types of tyres as Truck and Truck segment also based on their construction, their different sizes available, Vehicle Configuration, Pattern and Brand name to record for further analysis. Fitment Survey is prominent tools in Automotives Tyres Industry but requires an essential components of all related entities which made him robust and desired outcomes as per requirements.

II. LITERATURE REVIEWS

Christopher S. Calhoun, Beth M. Rogers-Adams, Jonathan A. Selvaraj, Denise L. Alevay, Denise L. Alevay. (1997).” An Adaptive Survey Method: Multiple Interview Techniques in Dynamic Environments”, the utility of associate survey methodology that consolidates many various interview techniques to inspire data in distinctive things is illustrated. survey could be a mix of conception mapping, semi-organized interviews, topical questionnaires and discussions used for the stimulus of data from topic specialists. Innate in survey interview techniques is that the ability to regulate to time necessities, schedule and responder changes and therefore the level of knowledge got. every meeting techniques is meant to use to any shopper within the survey and to deliver yield which may be used to tweak alternate techniques. Therefore, the survey may be made-to-order to the one amongst a form desires and necessities of the interviewees and nature. In field tests, plan mapping clothed to be associate particularly vital meeting strategy, since it had been interactive, informative and versatile.

Rigby, D. (2001). Management Tools and Techniques: A Survey. Management tools will mean many factors, however typically involves a collection of ideas ,process ,exercise and analytical frameworks like strategic springing up with, benchmarking, pay-for performance ,outsourcing, client segmentation, reengineering, balanced fact, and total quality management garner important thought among the acknowledge management literature. Organizations throughout the world pay enumerable greenbacks per annum implementing a dozen roughly of these tools. there

is no equivalent of the patron reports for management to use in evaluating the tools accessible to them .the study aim to supply mangers with associate objective ,fact driven assessment of management tools and techniques supported feedback from the actual user of tools. It identifies tools that area unit consistently used over time in addition as those that seem to possess been passing fads

Faas, T.(2004). Online Or Not Online? A Comparison Of Offline And Online Surveys Conducted In The Context Of The 2002 German Federal Election. The article compare regarding the results of three surveys that were led in methodologically altogether completely different routes within the run-up to the last German federal election. The primary survey summary could be a delegate check of the German population, the other is an internet survey of net user, the third one could be a spontaneous open on-line survey with self-chose participants. The examination yields spectacular contrasts among the 3 surveys regarding demographic (age, sex, education) and additionally extended factors (voting intentions, interest in politics). It's to boot incontestable that these distinctions stick with it existing within the wake of weight the examples by sex and age.

Bälter O, & Bälter, K.(2005). Demands on Web Survey Tools for Epidemiological Research .In nations wherever the web get to is high, a web poll might spare time and cash contrasted with written surveys, primarily by wiping out the 2 stages of exchanging answers from written to a complicated informational index and physically finishing absent and unimaginable answers. Be that because it might, a major range of the highlights required for leading intensive medicine investigations (Epidemiology is that the investigation of however often infections happen in varied gatherings of people and why) aren't accessible in several internet summary frameworks.

Paulin, G, & Krishnamurty, P (2018) .Consumer Expenditure Surveys Methods Symposium and Micro data Users,The Consumer Expenditure Surveys (CE) program gathers expenditures, demographics, and financial gain knowledge from families and households. to deal with CE-related subjects in survey ways analysis regarding, offer free getting ready within the structure and uses of the metal micro data, and investigate potential outcomes for coordinated effort, the metal program command its annual Survey ways conference and Micro data Users' Workshop from Gregorian calendar month eighteen to twenty one, 2017. A many economists consultants from the metal program, workers from completely different U.S. Bureau of Labor Statistics workplaces, Associate in Nursing analysis specialists in an assortment of fields that as well as the students, government, research, and different personal trade domain, assembled to research higher approaches to assemble metal data and to work out the way to utilize the small knowledge once they're created

All the above research finding give insight how the survey used in different domains of problem solving therefore recorded the data in all aspects of Heavy Commercial Tyre requirement an Survey Method which is effectively uses for recording data for further analysis.

III. COMPONENTS OF FITMENT SURVEY METHOD

Fitment Survey is Method which is used for recorded the response of object in case where respondent unable to give response through the Questionnaire and Schedule. It helps both in the finding and learning all related prospects of Automotive Industry which are Original Equipments Manufacturers (PCR, HCV, LCV and SCV) and Tyres Manufacturer. It helps in recorded data in easy manner to save further analysis as per requirement of the surveyors which posses certain knowledge of each component.

Components or Entities used in Fitment Survey, tools are essential component to carry out the survey of Heavy Commercial Vehicles, Light Commercial Vehicles and Passenger Car by Extensive field study and Depth Interviews by many professional which work in particularly in Automotive Industry domain gives insight about the all essential aspects relates with Fitment Survey Method. Basic Details like Name of the Surveyors, Date of Survey, and Location of Survey and No of Vehicle Surveyed is recorded every time when conduct an fitment survey.

HCV OR LCV: Heavy or Light Commercial Vehicles.

- I. Vehicle Registration: - Vehicle Number issues by Transport Authority eg UP13AT1111.
- II. Vehicle Configuration: - Heavy Commercial vehicles which are may be based on construction 6X2, 6X4 and 8X2.
- III. Vehicle make or manufacturer: - Vehicle manufacturer name eg Tata, Ashok Leyland and Maruti Suzuki etc.
- IV. OEM Fitment: - Check whether OEM (Original Equipment Manufacturer) or replacement tyre.
- V. Tyre Make or Brand: - Manufacture Name eg Apollo Tyres, JK Tyre ,Birla Tyre and Michillin Tyre etc.
- VI. Wheel Position: - Different position are as per Table A.

Table A :- LCV or HCV Vehicle Tyre Positions	
FL	Front Left
FR	Front Right
RRO	Rear Right Outer
RRI	Rear Right Inner
RLO	Rear Left Outer
RLI	Rear Left Inner
DUM-RLO	Dummy Rear Left Outer
DUM-RLI	Dummy Rear Left Inner

DUM-RRO	Dummy Rear Right Outer
DUM-RRI	Dummy Rear Right Inner

- VII. Tyre brands or Products (Stock keeping Unit):- MRF STEEL MUSCLE S3C8 PLUS, JK STAR LUG BT Platinum and BT 339.
- VIII. Tyre Size & PR (Ply rating) :- Sizes of Tyres as 10.00-20 ,11.00-20and 12.00-20 etc .Ply rating relates to their strength of cords which is 16 Ply and 18 Ply etc
- IX. Pattern: - Lug Tyres (Block Pattern) for Rear fitment and RIB Tyres for front Fitment.
- X. Construction: - Construction based on material used for making Tyres which is either Radial or Nylon.
- XI. New (Conditions):- Condition of Tyres relates to their cut, damage and wear etc.
- XII. Retread: - The Tyres (Casing) is Retread or New Tyre.

PCR: - PASSENGER CAR RADIAL.

- I. Vehicle Registration:-Vehicle Number issues by Transport Authority eg HR70A3632.
- II. Vehicle Make :- Maruti Suzuki
- III. Model Name:- ALTO
- IV. Model Variant:- LXI
- V. Position: - Tyres positions w.r.t wheel.

FL	Front Left
FR	Front Right
RL	Rear Left
RR	Rear Right

- VI. Make: - CEAT, MRF and Apollo etc.
- VII. Pattern:- MILAZE, ULTIMA NXT and ZVTS.
- VIII. Size: - 145/80R12, 195/60R15 and 155/70R13.

SCV: - SMAL COMMERCIAL VEHICLES

- I. Vehicle Registration: - Vehicle Number issues by Transport Authority eg RJ19AT4649.
- II. Vehicle Make: - TATA and Mahindra etc.
- III. Model Name: - MAGIC & MAXXIMA etc.
- IV. Make: - JK, CEAT, MRF and Apollo etc.
- V. Pattern: - AMAR DLX and MILAZE etc.
- VI. Size: -. 155/80 D 12 and 165/80 D 13 etc.
- VII. Position: - Tyres positions w.r.t wheel.

FL	Front Left
FR	Front Right
RL	Rear Left
RR	Rear Right

IV. CONCLUSION

Fitment Survey must consists all essential elements which require for recoding data and further analysis all data into specific information ,this components consists different elements which have their own technical entities therefore to conduct survey on Automotive Industry requires Fitment Survey Method which fulfill the requirement of survey. The outcomes of Fitment Surveys are followings.

- ❖ Find out which technology is currently most demanded in particular area or region.
- ❖ Find out the customer preference and choices for product in particular area.
- ❖ Learning prospects for marketers and researcher in the field of Automotive Industry.
- ❖ Key Determinants’ of Market Sizes and Demand estimation.

REFERENCES

- [1] Christopher S. Calhoun, Beth M. Rogers-Adams, Jonathan A. Selvaraj, Denise L. Alevay ,Denise L. Alevay , October 1, 1997.” An Adaptive Survey Method: Multiple Interview Techniques in Dynamic Environments”, Proceedings of the Human Factors and Ergonomics Society Annual Meeting ,ISSN: 1541-9312, Volume: 41 issue: 2, page(s): 1079-1083.
- [2] Rigby, D. (2001). Management Tools and Techniques: A Survey. *California Management Review*, 43(2), 139-160.
- [3] Faas, T. (2004). Online Or Not Online? A Comparison Of Offline And Online Surveys Conducted In The Context Of The 2002 German Federal Election. *BMS: Bulletin of Sociological Methodology / Bulletin De Méthodologie Sociologique*, (82), 42-57.
- [4] Bälter, O., & Bälter, K. (2005). Demands on Web Survey Tools for Epidemiological Research. *European Journal of Epidemiology*, 20(2), 137-139.
- [5] Paulin, G., & Krishnamurty, P. (2018). Consumer Expenditure Surveys Methods Symposium and Microdata Users’ Workshop, July 18–21, 2017. *Monthly Labor Review*, 1-20.
- [6] ATMA (Automotive Tyre Manufactures Association), <http://www.atmaindia.org>.
- [7] Indian Tyre Technical Advisory Committee (ITTAC), <http://www.ittacindia.org>.
- [8] Society of Indian Automobile Manufacturers (SIAM), <http://www.siamindia.com>.
- [9] Kothari CR Research Methodology- Methods and Techniques. New Eastern ltd Delhi, 2009.
- [10] Birla Tyre, www.birlatyre.com
- [11] Apollo Tyre, <http://www.apollotyres.com>
- [12] CEAT Tyre, www.rpggroup.com
- [13] MRF Tyre, www.mrftyres.com
- [14] JK Tyre & Industries Ltd, www.jktyre.com
- [15] Continental Tyre, www.continentaltyre.com
- [16] Michilin Tyre ,www.michilin.com
- [17] Bridgestone Tyre, www.bridgestone.co.in