

A Study Of Road Signboards And Its Design Innovation

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ABSTRACT

As you all know, road safety is very much important to minimize accident and to rescue your life. Design innovation is not just about coming up with new idea and product; It is also about change that lead to growth and differentiation. The earliest signs were simple wooden or stone milestones. Later, signs with directional arms were introduced, for instance, the fingerposts within the UK and their wooden counterparts in Saxony.

The present study of research is analytical and content analysis research which means the survey of the topic is a primary and the secondary used data that is “design innovation in road sign” the info is collected from 100 peoples during which a number of the drivers, a number of civilizes, and a few of the strangers. The study concludes that the road sign has many types like a warning, informatory, advice, location, etc. Different signboards have different work in a different area, location, and situation; they provide different knowledge according to the type of boards. The study also concludes that according to change in time we should also change the design of signs therefore innovation in signs is a need in the current scenario.

Keywords: Design innovation, Road signs, Mandatory Sign, Cautionary Sign, Informatory Sign

Introduction

The design innovation is a fundamentally innovative concept and or design that wholly innovate on the way the user interacts with the product, and often therefore, the content of their lives—this is design innovation. It’s innovating on a product through its design. It requires an immense amount of taste, empathy, creativity, and variety of inputs / perspectives. Design innovation is not just about coming up with new idea and product; It is also about change that lead to growth and differentiation. Before you address new product, service, technologies, and processes, you need a foundation that leads to innovation.

Road Signs

Traffic signs or road signs are signs erected at the side of or above roads to offer instructions or provide information to road users. The earliest signs were simple wooden or stone milestones. Later, signs with directional arms were introduced, for instance, the fingerposts within the UK and their wooden counterparts in Saxony.

Types of the Road Signs

(a) Mandatory Sign- These signs are used to ensure free movement of traffic and make the road users cognizant of certain laws and regulations, restrictions and prohibitions. Violation of these signs is an offense, as per law.

(b) Cautionary Sign- These signs make the road users conscious of hazardous conditions on the road beforehand. The drivers, accordingly, take necessary actions to handle things.

(c) Informatory Sign- These signs guide the road users about destinations, distance, alternative routes, and prominent locations like food joints, public toilets, nearby hospitals, etc.

History of Road Signs

The earliest road signs were milestones, giving distance or direction, for instance, the Romans erected stone columns throughout their empire giving the space to Rome. In the middle Ages, multidirectional signs at intersections became common, giving directions to cities and towns.

In 1686, the primary known Traffic Regulation Act in Europe is established by King Peter II of Portugal. This act foresees the location of priority signs within the narrowest streets of Lisbon, stating which traffic should copy to offer way. One of these signs still exists in Salvador Street.

The first modern road signs erected on a good scale were designed for riders of high or "ordinary" bicycles within the late 1870s and early 1880s. These machines were fast, silent and their nature made them difficult to regulate, moreover their riders traveled considerable distances and sometimes preferred to tour on unfamiliar roads. For such riders, cycling organizations began to erect signs that warned of potential hazards ahead (particularly steep hills) instead of merely giving distance or directions to places, thereby contributing the sign type that defines "modern" traffic signs.

Over the years, change was gradual. Pre-industrial signs were stone or wood, but with the development of Darby's method of smelting iron using coke, painted cast iron became favored in the late 18th and 19th centuries. Cast iron continued to be used until the mid-20th century, but it was gradually displaced by aluminum or other materials and processes, such as vitreous enameled and/or pressed malleable iron, or (later) steel. Since 1945 most signs are made up of sheet aluminum with adhesive plastic coatings; these are normally retro-reflective for already dark and low-light visibility. Before the event of reflective plastics, reflectivity was provided by glass reflectors set into the lettering and symbols.

Road Sign in India

Road signs within the Republic of India are almost like those utilized in some parts of the UK, except that they're multilingual. Most urban roads and state highways have signs within the state language and English. National highways have signs in the state language, Hindi and English.

Road symbols are the pictorial representations having the various necessary information required to be understood by every road user. As you all know, road safety is very much important to minimize accident and to rescue your life. Whether an individual on the vehicle or a pedestrian, a sound knowledge of

traffic signs may be a must. Being conscious of the road signs will assist you to acknowledge the meaning and importance of every and each sign like the road conditions ahead, what instructions you should follow at the main crossroads or at the junctions, proper warnings, and guidance for the drivers. Forgetting a driver's license, an individual must be completely conversant in the traffic signs- verbally also as on paper.

Review of Literature

Kircher and Andersson (2013) have pointed out that 40 percent of trucks do not have any seat belts installed. Most of the truck drivers do not take proper rest after a long drive.

Tahir etc. al.(2012) have described that speeding, carelessness, and wrong side driving are significantly associated with road accidents. 25 percent of road accidents occur due to careless driving and 22 percent due to driving on the wrong side. 45 percent of cases of road accidents are associated with a motorcycle, 34 percent with cars, 2 percent with trucks, and 1 percent with buses.

Banik etc. al. (2011) have shown that drivers' behavior is responsible for the increase in the number of road accidents due to exceeding the capability of driving and overtaking.

Hoare (2007) has described that driving behavior is affected by different variables such as optimism bias, age differences, cross-cultural difference gender differences, driving experience, exposure, and seatbelt usage. It is also identified that dimensions of risk perception are significantly influenced by driving behavior, optimism bias, age differences, driving experience, and exposure.

Goodwin et al. (2006) have observed that positive driving behavior is necessary rather than encouraging drivers to obey traffic signals. It is estimated that 20 percent of road accidents injuries can be reduced by camera enforcement.

Reason etc. al.(1990) have described that drivers' attitudes have been classified on the basis of errors and violations of rules.

Keskinen et al. (1998) have described that male drivers are more inattentive in the accident situation as compared to female drivers. It is also found that road travelers are more likely to be involved in road accidents due to inattention in the age group of fewer than 25 years and between 45 and 64 years.

Objective of the Study

1. To provide information about road signs.
2. To innovate the design of road signs.
3. To collecting the persons thinking towards the road sign.
4. To gather the right information.
5. To analyze the accident rates.
6. To develop the road sign design.

7. Applying the new policy in a road sign.
8. To introduce the different signs
9. To Providing avidness.

Hypothesis of the Research

Following hypotheses has been framed for the study:

- H01** There is no use of Road signboards at the time driving.
- H02** There is no role of signboards to reduce accidents.
- H03** There is no saving in time to reach the destination by the signboards.

Research Methodology

The study of research is analytical and content analysis research which means the survey of the topic is a primary and the secondary used data that is “design innovation in road sign” the info is collected from 100 peoples during which a number of the drivers, a number of civilizes, and a few of the strangers. And the all data information is on the basis of these peoples. They have different opinions with different thinking.

The collection of data was hard to collect from different areas like urban, semi-urban, village. There are a different people in a different area and they had different perceptions towards the road signs. Here there are the different question which asked about the road sign and safety which relate to daily life.

On the basis of research, we can say that the area which is cover for the purpose of introducing road rules, norms, basic information about road safety. And the person what they think about the road journey which they face in a lifelike

Limitation of the Study

1. Lack of time to collect the information.
2. The very huge and broad area in the road sign.
3. It is not possible to achieve full information.
4. The person's review is different who creates difficulty.
5. Collected data is not right as per the large level.
6. Very Costly method to find all details.
7. The collected data is not prime as up to the mark.

8. Person thinking also diverts the research.

Data Analysis and Interpretation

Q. 1. Do you know about Road Signboards?

Basis	% of Respondent	No. of Respondent (100)
Yes	90%	90
No	10%	10

The total no. of respondents is 100. Out of which 90% of respondents are known about road sign boards and 10% unknown about it.

Q. 2. Are signboards helps the people for information?

Basis	% of Respondent	No. of Respondents (100)
Yes	80%	80
No	20%	20

Based on the above analysis 80% of respondents say yes on the question of signboard helps the people for information and 20% say no.

Q. 3. Is it a good source of knowledge?

Basis	% of Respondent	No. of Respondents (100)
Yes	73%	73
No	27%	27

On the above analysis, 73% of people say that signboards a good source of knowledge and the remaining 27% of people say that it is not a good source of knowledge.

Q. 4. Do you think signboards helps to reduce the accident rates?

Basis	% of Respondent	No. of Respondents (100)
Yes	98%	98
No	02%	02

98% of peoples think that signboard helps to reduce accidents but 2% not in favor.

Q. 5. Who needs signboards more?

Basis	% of Respondent	No. of Respondents (100)
Drivers	68%	68
Travellers	20%	20
Others	12%	12

Based on the above analysis signboards are useful for 68% of drivers, 20% travelers, and 12% others.

Q. 6. Are Signboards the best source of direction?

Basis	% of Respondent	No. of Respondents (100)
Yes	85%	85
No	15%	15

85% of respondents accept that signboards are the best source of direction and the remaining 15% denies.

Q. 7. Are signboards helps to reduce the time consumption of reach destination?

Basis	% of Respondent	No. of Respondents (100)
Yes	72%	72
No	28%	28

Based on the above analysis 72% of respondents say yes on the question of signboards helps to reduce the time consumption of reach destination and 28% say no.

Q. 8. How many persons follow signboards on the road?

Basis	% of Respondent	No. of Respondents (100)
Yes	82%	82
No	18%	18

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Based on the above analysis 82% of respondents say yes on the question of using signboards on the road and 18% say no.

Q. 9. Are the signboards important for driving?

Basis	% of Respondent	No. of Respondents (100)
Yes	92%	92
No	08%	08

92% of peoples think that signboards are important for driving 2% not in favor.

Q. 10. Where road signboards are very useful?

Basis	% of Respondent	No. of Respondent (100)
Villages	3%	3
Cities	7%	7
Sub-urban	3%	3
Everywhere	87%	87

Maximum 87% of people think that road signboards are very useful everywhere followed by 3% in villages, 7% in cities and 3% in sub-urban areas.

Q. 11. Are signboards understandable for everyone?

Basis	% of Respondent	No. of Respondents (100)
Yes	62%	62
No	38%	38

62% of peoples think that signboards are understandable for everyone and 38% not in favor.

Findings

There are a total number of people for the survey were 100 in which some were from the urban area, some were village area and some of the semi-urban area. The data was collected from primary sources like are personal interaction, personal conversation, observation, etc.

In the findings, we can say that most of the peoples are aware of the importance of road sign. They know very well about the signboards in different ways and types. The peoples know how signboard is helpful for the reducing accident on the road and how it helps for providing information to all.

Maximum people know that signboards are very informative; these are a very good source of knowledge. Signboards are very useful for all citizens but it is more useful for drivers and travelers. It also shows a proper direction on the road and saves traveling time. Signboards help at the time of driving; these are in very simple form in terms of easy to understand.

Testing of the Hypothesis

H01 There is no use of Road signboards at the time driving.

During the present study, all the questions are related to role of road signboards. The study not showing the results in favor of hypotheses.

H02 There is no role of signboards to reduce accidents.

As can be seen during the study that the peoples know how signboard is helpful for the reducing accident on the road, therefore the study rejects this hypothesis.

H03 There is no saving in time to reach the destination by the signboards.

The present study does not supports this hypothesis as there is saving in time to reach the destination by the signboards. The study shows that signboards help to find proper direction on the road and save traveling time.

Conclusion

On the bases of the above analysis, we can say that road sign is a very important part of the transportation area because is provide better information to all drivers and that person who needs help in the alone are there they cannot get the proper information. So we can say that the road sign needs a full part of all of the citizens of the country where the road sign are available. Thus the road sign is also provided the help for reducing the road accident. Road accidents are the reason for the unavailability of the signboards.

The road sign is very popular in developing area the provide attraction and main focus part of the developed area. Road sign has many types like a warning, informatory, advice, location, etc. Different signboards have different work in a different area, location, and situation; they provide different knowledge according to the type of boards. The study also concludes that according to change in time we should also change the design of signs therefore innovation in signs is a need in the current scenario.

Suggestion

In the suggestion, we can say that the road sign should develop the traditional pattern it should be different and unique, helpful. According to all angles because on the bases of traditional road signs are very odd and drivers cannot understand easily. the signboards should be in the simple form with the simple font that can be visible and the quality should be very good, durable, high performance, and not more costly. Now a day the dealer on the road signs are not providing good quality radium tape and due to this reason, the work is not that level that deserves. And this is the main reason for the poor

performance of the road sign. Some of the times we can see the holdings, the banner on the flyover is not in good condition the reason is that poor quality of the service provided by the dealer.

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