



**A STUDY ON CUSTOMER PERCEPTION TOWARDS AUTOMOBILE CABLES  
WITH REFERENCE TO ROOTS INDUSTRIES LTD, COIMBATORE WITH SPECIAL  
REFERENCE TO KARUR AND NAMAKKAL DISTRICTS**

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A PROJECT REPORT  
Submitted

In partial fulfillment of the requirements

For the award of the degree

Of

**MASTER OF BUSINESS ADMINISTRATION**

**Kumaraguru College of Technology**

(An autonomous institution affiliated to Anna University, Coimbatore)

**Coimbatore - 641 047**

**September, 2012**



### BONAFIDE CERTIFICATE

Certified that this project report titled **“A STUDY ON CUSTOMER PERCEPTION TOWARDS AUTOMOBILE CABLES WITH REFERENCE TO ROOTS INDUSTRY LTD, COIMBATORE WITH SPECIAL REFERENCE TO KARUR AND NAMAKKAL DISTRICTS”** the bonafide work of **Mr.R.DEEPAN (REG. NO 112040022)** who carried out the project under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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Submitted for project Viva-Voice examination held on

.....

Internal Examiner

External Examiner

## DECLARATION

I affirm that the project work titled **“A STUDY ON CUSTOMER PERCEPTION TOWARDS AUTOMOBILE CABLES WITH REFERENCE TO ROOTS INDUSTRIES LTD, COIMBATORE WITH SPECIAL REFERENCE TO KARUR AND NAMAKKAL DISTRICTS”** being submitted in partial fulfilment for the award of Master of Business Administration is the original work carried out by me. It is not a part of any other project work submitted for the award of any degree or diploma, either in this or any other university.

Signature of the Candidate

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I certify that the declaration made above by the candidate is true.

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# INTRODUCTION

# CHAPTER I

## INTRODUCTION

### 1.1 ABOUT THE STUDY

Marketing is essentially about marshalling the resources of an organisation so that they meet the changing needs of customers on whom the organisation depends. As a verb, marketing is all about how an organisation addresses its markets.

Marketing is “The management process which identifies anticipates and supplies customer requirements effectively and profitably”. Marketing research is the function that links the consumers ,customers, and public to the marketer through information .it is used to identify and define marketing opportunities and problems; generate, refine and evaluate marketing actions; monitor marketing performance ; and improve understanding of marketing as a process. Marketing research specifies the information required to address these issue , design the method for collecting information , manages and implements the data collection process , analyses the results and communicates the findings and their implications. “Marketing research is the systematic gathering, recording, and analysis of data about issues relating to marketing products and services.

First, marketing research is systematic. Thus systematic planning is required at all the stages of the marketing research process. The procedures followed at each stage are methodologically sound, well documented and as much as possible, planned in advance. Marketing research uses the scientific method in that data are collected and analysed to test prior notions or hypotheses. Marketing research is objective. It attempts to provide accurate information that reflects a true state affair. It should be conducted impartially.

Marketing research is often partitioned into two sets of categorical pairs, either by target market:

Consumer marketing research and

Business-to-business (B2B) marketing research

### INDUSTRIAL MARKETING

Industrial marketing involves the sale of goods by one business to other businesses. Typically it is the marketing of goods and services to business

organisations for use in the manufacture of their products or in the operation of their business.

Goods involved in Industrial marketing are quite diverse in nature, for example B2B selling can involve raw materials and energy supplies, such as gas, electricity, steel and other metals. Components, such as circuit boards and computer chips, and even services such as banking, logistics, and accounting services.

How industrial marketing is carried out (the strategies used) differs from consumer marketing for a basic reason. Consumer shopping is discretionary and consumer behaviour is determined by marketing, incomes, taste etc. But businesses must buy supplies and services to keep their operations running, and the price they pay for these items has a direct impact on these firms profitability.

With industrial products the seller is not now focused on appealing to the mass market (as with consumer products), but is instead looking to appeal to a much smaller number of specialist buyers. For example the target market may be a fashion buyer working for ASDA looking to buy 10,000 yards of fleece to use to make sweatshirts and jackets, or a purchasing Director employed by Dyson, requiring brushes for 50,000 vacuum cleaners.

Although Industrial marketing has then obvious differences from the selling of consumer goods, the basics of industrial marketing are still based on the 4P's, and the seller must still consider competition, the product life cycle, the requirements of the buyer and so on. The differences that do occur are based on the emphasis on each part of the marketing mix, and the use of different strategies within the marketing mix. It is also worth remembering that those involved in Industrial Marketing must also consider the impact of JIT on marketing strategies. It is often more important to market on ability to integrate supply and order systems, than on small price margins.

## **AUTOMOBILE SPARES**

The escalating Indian automobile industry has indirectly influenced the expansion of the auto spare parts sector in the country. India is steadily surfacing as an international outsourcing destination for producing different automotive components. Firms like Volvo, Toyota, Daimler Chrysler, Hyundai, etc. are sourcing their auto spare parts from different automotive makers of India. India as a global Auto Spare

Parts Manufacturing hub. Over the years, Indian Auto Spare Parts sector has witnessed a slow yet steady growth. It has emerged as the preferred manufacturing hub for auto components due to various reasons. Some of them are:

- The long-established manufacturing industry of India
- Low-priced workforce and easy availability of raw materials making India cost competitive
- Operational units of leading global auto component makers like Meritor, Visteon, Bosch, etc. in India
- Both auto makers and auto components makers have established their International Purchasing Offices (IPOs) in the nation
- World class quality auto spare components are manufactured in the country
- Research and development activities are conducted in India for global firms like Johnson Controls, Daimler Chrysler, Suzuki, General Motors, etc.

## **AUTO COMPONENTS INDUSTRY**

Automotive spare parts and components are a lesser known industry yet a big one. In past few years the industry has grown enormously, even more than the automotive industry itself not only in the Indian but global scenario.

This vast industry includes automotive components, accessories, gadgets, spare parts and tools; the consumers being the OEM segment and the replacement and aftermarket sector. Automotive spare parts replacement and aftermarket have in themselves become a major industry.

In mid1990's the quality of Indian products increased a lot and the prices were considerably lowered. This posed an interesting situation where the Indian replacement and aftermarket industry had geared up to meet the international standards and awaited an ideal opportunity for global experience.

Certain SME's through their focused operations are now serving the global automotive giants directly or through suppliers. Online catalogues and websites have added to the online presence of our clients.

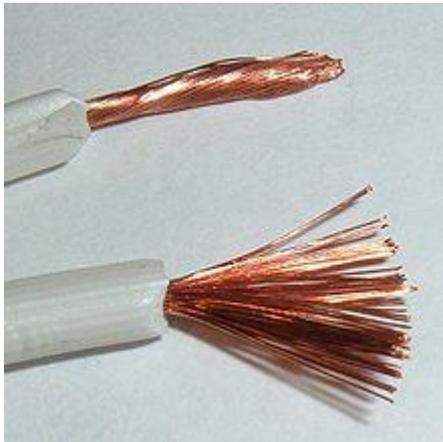
The results are quite apparent; Indian Automotive parts industry makes original components of major automotive giants like General Motors and Mercedes

amongst others. They have, through consolidated efforts been positioned as global players of the sector.

## Wire

A wire is a single, usually cylindrical, flexible strand or rod of metal. Wires are used to bear mechanical loads and to carry electricity and telecommunications signals. Wire is commonly formed by drawing the metal through a hole in a die or draw plate. Standard sizes are determined by various wire gauges. The term *wire* is also used more loosely to refer to a bundle of such strands, as in 'multistranded wire', which is more correctly termed a wire rope in mechanics, or a cable in electricity.

Although usually circular in cross-section, wire can be made in square or flattened rectangular cross-section, either for decorative purposes, or for technical purposes such as high-efficiency voice coils in loudspeakers. Edge-wound coil springs, such as the "Slinky" toy, are made of special flattened wire.



## Wire uses:

Wire has many uses. It forms the raw material of many important manufacturers, such as the wire netting industry, engineered springs, wire-cloth making and wire rope spinning, in which it occupies a place analogous to a textile fibre. Wire-cloth of all degrees of strength and fineness of mesh is used for sifting and screening machinery, for draining paper pulp, for window screens, and for many other purposes. Vast quantities of aluminium, copper, nickel and steel wire are employed for telephone and data cables, and as conductors in electric power transmission, and heating. It is in no less demand for fencing, and much is consumed in the construction of suspension bridges, and cages, etc. In the manufacture of stringed musical instruments and scientific instruments wire is again largely used. Carbon and stainless spring steel wire have significant applications for engineered springs for critical automotive or industrial manufactured parts/components. Among its other sources of consumption it is sufficient to mention pin and hairpin making, the needle and fish-hook industries, nail, peg and rivet

making, and carding machinery; indeed there are few industries into which it does not enter.

Not all metals and metallic alloys possess the physical properties necessary to make useful wire. The metals must in the first place be ductile and strong in tension, the quality on which the utility of wire principally depends. The metals suitable for wire, possessing almost equal ductility, are platinum, silver, iron, copper, aluminium and gold; and it is only from these and certain of their alloys with other metals, principally brass and bronze, that wire is prepared.

By careful treatment extremely thin wire can be produced. Special purpose wire is however made from other metals (e.g. tungsten wire for light bulb and vacuum tube filaments, because of its high melting temperature). Copper wires are also plated with other metals, such as tin, nickel, and silver to handle different temperatures, provide lubrication, provide easier stripping of rubber from copper

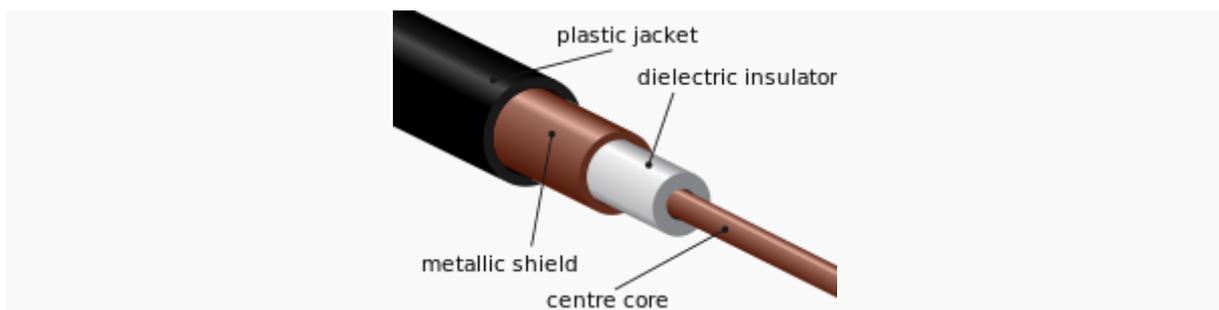
### **Electrical cable:**

Electrical cables may be made more flexible by stranding the wires. In this process, smaller individual wires are twisted or braided together to produce larger wires that are more flexible than solid wires of similar size. Bunching small wires before concentric stranding adds the most flexibility. Copper wires in a cable may be bare, or they may be plated with a thin layer of another metal, most often tin but sometimes gold, silver or some other material. Tin, gold, and silver are much less prone to oxidation than copper, which may lengthen wire life, and makes soldering easier. Tinning is also used to provide lubrication between strands. Tinning was used to help removal of rubber insulation. Tight lays during stranding makes the cable extensible.

Cables can be securely fastened and organized, such as by using trunking, cable trays, cable ties or cable lacing. Continuous-flex or flexible cables used in moving applications within cable carriers can be secured using strain relief devices or cable ties.

At high frequencies, current tends to run along the surface of the conductor. This is known as the skin effect.

### **Cables and electromagnetic fields**



Any current-carrying conductor, including a cable, radiates an electromagnetic field. Likewise, any conductor or cable will pick up energy from any existing electromagnetic field around it. These effects are often undesirable, in the first case amounting to unwanted transmission of energy which may adversely affect nearby equipment or other parts of the same piece of equipment; and in the second case, unwanted pickup of noise which may mask the desired signal being carried by the cable, or, if the cable is carrying power supply or control voltages, pollute them to such an extent as to cause equipment malfunction.

The first solution to these problems is to keep cable lengths in buildings short, since pick up and transmissions are essentially proportional to the length of the cable. The second solution is to route cables away from trouble. Beyond this, there are particular cable designs that minimize electromagnetic pickup and transmission. Three of the principal design techniques are shielding, coaxial geometry, and twisted-pair geometry.

Shielding makes use of the electrical principle of the Faraday cage. The cable is encased for its entire length in foil or wire mesh. All wires running inside this shielding layer will be to a large extent decoupled from external electric fields, particularly if the shield is connected to a point of constant voltage, such as earth. Simple shielding of this type is not greatly effective against low-frequency magnetic fields, however - such as magnetic "hum" from a nearby power transformer. A grounded shield on cables operating at 2.5 kV or more gathers leakage current and capacitive current, protecting people from electric shock and equalizing stress on the cable insulation.

Coaxial design helps to further reduce low-frequency magnetic transmission and pickup. In this design the foil or mesh shield has a circular cross section and the inner conductor is exactly at its centre. This causes the voltages induced by a magnetic field between the shield and the core conductor to consist of two nearly equal magnitudes which cancel each other.

A twisted pair has two wires of a cable twisted around each other. This can be demonstrated by putting one end of a pair of wires in a hand drill and turning while maintaining moderate tension on the line. Where the interfering signal has a wave length that is long compared to the pitch of the twisted pair, alternate lengths of wires develop opposing voltages, tending to cancel the effect of the interference.

## **Fire protection**

In building construction, electrical cable jacket material is a potential source of fuel for fires. To limit the spread of fire along cable jacketing, one may use cable coating materials or one may use cables with jacketing that is inherently fire retardant. The plastic covering on some metal clad cables may be stripped off at

installation to reduce the fuel source for fires. Inorganic coatings and boxes around cables safeguard the adjacent areas from the fire threat associated with unprotected cable jacketing. However, this fire protection also traps heat generated from conductor losses, so the protection must be thin.

There are two methods of providing fire protection to a cable:

1. Insulation material is deliberately added with fire retardant materials
2. The copper conductor itself is covered with mineral insulation (MICC cables)

## **POLICY ENVIRONMENT AND TRADE**

Auto Policy 2002 and Auto Mission Plan 2006-16- framework for Automotive Manufacturing in India

- Manufacturing and Imports free from Licensing and Approvals
- WTO compliant policies (no import restrictions and reduced tariff levels)
- Robust legal system and stable Foreign Exchange regime
- Joined UN-ECE WP 29 for Global Standard in Technology
- Increased budgets for R&D activities
- 100%FDI permitted without prior Govt. approval

## **CHALLENGES**

- Raising capital & scaling capabilities
- Infrastructure challenges
- Ports
- Power
- Inflation
- Availability of skilled Man power
- R&D competence

## **ADVANTAGES IN INDIA**

- Product Development Capabilities
- High quality standards
- Export capabilities
- Automotive standards

- Strong Entrepreneurship
- Large and growing domestic demand

## **1.2 ABOUT THE ORGANISATION:**

### **ROOTS INDUSTRIES LTD**

In a dynamic world that is driven by technology, a successful presence depends on the way you mould that technology to fit popular needs. Indigenous talent, a daring attitude, courage to accept and learn new things and the simple spark of an idea. That is the genesis of ROOTS.

Roots Industries India Ltd. is a leading manufacturer of HORNS in India and the 11th largest Horn Manufacturing Company in the world.

Headquartered in Coimbatore - India, ROOTS has been a dominant player in the manufacture of Horns and other products like castings and Industrial Cleaning Machines.

Since its establishment in 1970, ROOTS has had a vision and commitment to produce and deliver quality products adhering to International Standards.

With a strong innovative base and commitment to Quality, Roots Industries India Ltd has occupied a key position in both international and domestic market as suppliers to leading OEMs and after-market. Similar to products, Roots has leading edge over competitors on strong quality system base.

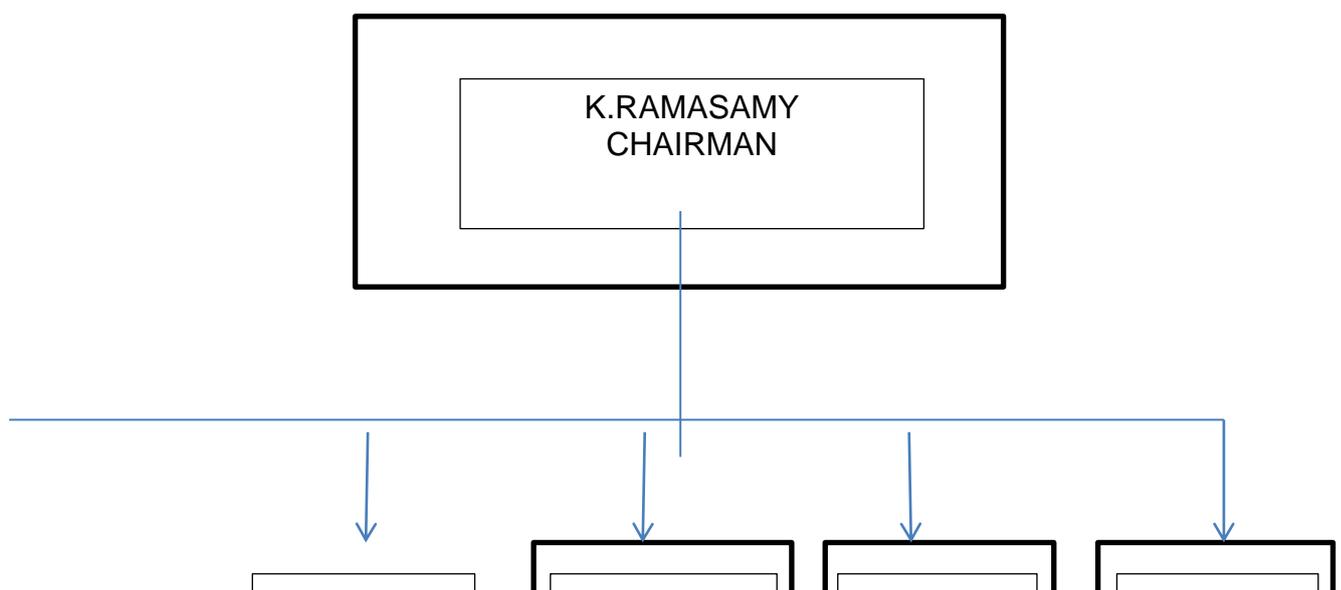
Now, RIL is the first Indian Company and first horn Manufacturing Company in the world to get ISO/TS 16949 certification based on effective implementation of QS 9000 and VDA 6.1 system requirement earlier. Roots' vision is to become a world class company manufacturing world class product, excelling in human relation.

## **VISION**

We will stand technologically ahead of others to deliver world-class innovative products useful to our customers. We will rather lose our business than our customers' satisfaction. It is our aim that the customer should get the best value for his money.

Every member of our company will have decent living standards. We care deeply for our families, for our environment and our society. We promise to pay back in full measure to the society by way of selfless and unstinted service.

## ORGANIZATION STRUCTURE



**A**

## **ABOUT THE FOUNDER**

An obsessive hobby went into the making of this self-made industrialist. Born in an agricultural family, young Ramasamy had a great interest in repairing automobiles. This led to his getting the master's degree in Automobile Engineering from Lincoln Technical Institute, USA in 1969 and developing a unique Radiator Coolant Recovery System, which is today standard equipment in almost all vehicles manufactured by the advanced countries.

In 1970, Mr. Ramasamy promoted M/s. American Auto Service, which was taken over in 1992 by Roots Industries Private Limited, a company promoted by Mr. Ramasamy. This company entered into technical collaboration with Robert Bosch, the world leaders in auto electrical to manufacture all the range of Bosch Horns. Mr. Ramasamy had a very inquisitive and innovative temperament. This led to his having many firsts in his distinguished career.

Servo brakes were designed for the first time in India by Mr. Ramasamy. He designed the first high frequency Wind Tone type horn which was smaller and lighter than conventional horns. Besides all the other firsts, Mr. Ramasamy introduced electronically controlled Musical Air Horns for the first time in

the World.

The thirst for innovation and drive to move forward, led to the establishment of a die casting unit to meet the captive requirement of ROOTS. In 1987, Mr. Ramasamy set up a full-fledged modern tool room equipped with the latest machines for the manufacture of precision tools and dies. He promoted Roots Multi clean Ltd., a joint venture in Techno-financial collaboration with M/s. Hako Werke GmbH, Germany to manufacture world class Industrial Floor Care and Floor Cleaning Equipment.

RMCL is successfully spreading the concept of Mechanized Cleaning in India and also exports its products to various countries like Australia, Britain, Germany, Japan Singapore, etc.

Mr.Ramasamy can very proudly claim that he is a self-made industrialist and in recognition of the same, he has been conferred the Udyog Shree Award in the year 1990. He has also been awarded the Udyog Rattan Award by the Institute of Economic Studies in the year 1991.

## MILESTONES

- 1970** Promotes American Auto Service for manufacture of Electric Horns.
- 1972** First to manufacture Servo Brakes for Light Motor Vehicles.
- 1984** Roots Auto Products Private Limited was established to manufacture Air Horns. Die Casting Unit commences commercial operations.
- 1988** Polycraft, a unit for Plastic Injection Moulding was established.
- 1990** Roots Industries India Ltd takes over Electric Horn business.
- 1992** RMCL enters into Techno-Financial collaboration with M/s. Hako Werke GmbH, Germany.
- 1992** Roots Industries India Ltd obtains the National Certification - ISI mark of quality.

- 1994** Production of floor cleaning equipment commences. Roots Industries India Ltd wins American International Quality Award.
- 1999** Becomes the first horn manufacturer in Asia to obtain QS 9000
- 2000** Becomes the first horn manufacturer in Asia to obtain VDA 6.1 and the first in the world to win ISO / TS 16949
- 2000** The first to introduce digitally controlled air horns and low frequency, low decibel irritation free Jumbo Air Horns.
- 2003** Roots Industries India Ltd., Horn Division is accredited with ISO 14001 : 1996
- 2003** Roots Industries India Ltd., upgraded its ISO / TS 16949 from 1999 version to 2002 version
- 2004** Roots Industries India Ltd (RIL) opens its 100% exclusive Export Oriented Unit at their Horn Division Thoppampatti, Coimbatore to cater the needs of Ford North America.
- 2004** RIL's EOU commences its supplies to Ford, North America
- 2004** Roots Multiclean Limited (RMCL) inaugurates its 100% EOU Plant at Kovilpalayam, Coimbatore
- 2004** Roots Cast Private Limited (RCPL) inaugurates its Unit II at Arugampalayam, Coimbatore
- 2004** Roots Auto Products Pvt Ltd (RAPPL) expands with its Machining Division at Arugampalayam, Coimbatore

- 2004** RIL successfully launches its Malaysian Plant
- 2004** The group company American Auto Service is accredited with ISO 9001 : 2000
- 2005** Roots Industries India Ltd is certified with MS 9000, a pre-requisite for Q1 award for Ford Automotive Operations Suppliers. Focus on Systems and Processes
- 2005** Roots Metrology & Testing Laboratory has been accredited by National Accreditation Board for testing & calibration in the field of Mechanical – Linear & Angular
- 2005** Roots Industries India Ltd., is awarded Q1 by Ford Motor Company
- 2005** Roots Industries India Ltd., Horn Division upgraded its ISO : 14001 from 1996 version to 2004 version

## **ROOTS GROUP OF COMPANIES**

Roots Industries India Ltd

Electric Horns

Roots Auto Products Private Limited

Air Horns, Switches & Controllers

Roots Multiclean Limited

Cleaning Machines

Roots Cast Private Limited

Aluminium & Zinc Pressure Die Cast

Roots Precision Products

Dies, Tools, Jigs & Fixtures

Roots Metrology Laboratory

Instrument Calibration, Quality System,  
Consultancy

Roots Polycraft

Plastic components

R K Nature Cure Home

Nature Cure Therapy, Yoga & Massages

Satchidananda Jothi Nikethan

International School

Integral Yoga Institute

Yoga and Meditation

### **1.3 STATEMENT OF THE PROBLEM:**

The marketing research has been carried out to access the new brand of automotive electrical cable in market. There are some leading players in market it should overcome the present brand used by the customers.

### **1.4 SCOPE OF THE STUDY:**

- The study focuses only on the confined customers who deal with the automotive electrical cable in truck /bus body building companies.
- The study is confined to ROOTS, COIMBATORE.
- The study was conducted to identify the usage of cables in the vehicles.

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# **REVIEW OF LITERATURE**

## CHAPTER 2 REVIEW OF LITERATURE

Daniel M. G. Raff and Manuel Trajtenberg <sup>1</sup>says that the empirical literature on new goods has long shown an interest in the automobile. The industry's annual model changes pose the price index question perfectly well in the post-war period. But the most salient questions about new goods necessarily take us further back in time. Straightforward facts about the history of automobile manufacturing in America support this view. The industry saw tremendous changes over this period as well. Indeed, contrasted with the tight oligopoly and dull performance of the post-World War I decades, the vibrancy of these early years is almost shocking. There was an early and well-organized attempt at cartelization that failed. Entry eventually proceeded at a breakneck pace. Attracted by the palpably vast opportunities, hundreds of new firms burst onto the scene every year, the total running to well in excess of a thousand. More than ten thousand distinct models were on offer at one time or another. Intense competition in price and quality persistently pushed price-performance ratios to new lows. Automobile Prices innovation components, identifying constant-quality price change with manufacturing economies and quality change with design improvement. Automobiles are complex products, arguably the most complex consumer durable at the turn of the century as well as now. This basic fact permeates our approach to measurement and hence to gathering data. We thus begin by recognizing that any design for a self-propelled land vehicle must confront a series of interrelated engineering problems. Any particular design (i.e., any particular vehicle a consumer might buy) represents a particular set of solutions to these problems. The generic problems are simply stated. The first task is to generate power from the fuel in a sustainable fashion. Gasoline, for example, can be mixed with air and exploded in a controlled way in a confined space.<sup>3</sup> If one wall of the space can move relative to the others, the kinetic energy of the explosion becomes linear motion. This can be converted into rotary motion to turn wheels, and the rotary motion will be smoother if the mixing and exploding go on in several sites in some staggered sequence. All the mechanical elements involved in creating and transforming the linear motions need to be kept lubricated and relatively cool.

.....  
<sup>1</sup> Quality-Adjusted Prices for the American Automobile Industry: 1906-1940 Daniel M. G. Raff and Manuel Trajtenberg

Belén del Río, Rodolfo Vázquez, Víctor Iglesias <sup>2</sup>, told that this paper studies the dimensions of brand image, focusing on the functions or value of the brand as perceived by consumers. In this way, four categories of functions are identified: guarantee, personal identification, social identification and status. By way of hypotheses, it has been proposed that these functions have a positive influence on

the consumer's willingness to recommend the brand, pay a price premium for it and accept brand extensions. The hypotheses have been tested in the Spanish sports shoes market and were partially supported. The results obtained confirm the convenience of analysing brand associations separately and enable the ascertaining of the brand associations that are the most relevant in order to attain certain consumer responses

**Elena Delgado-Ballester**, **José Luis Munuera-Alemán**<sup>3</sup>, describes The existing literature of brand loyalty has been essentially focused on the roles of perceived quality, brand reputation and especially satisfaction, due to the fact that they summarise consumers' knowledge and experiences, guiding their subsequent actions. In this context, the shifting emphasis to relational marketing has devoted a lot of effort to analyse how other constructs such as trust predict future intention. The fact that there are conceptual connections of trust to the notion of satisfaction and loyalty, and that this effort is especially lacking in the brand-consumer relationship, moves the authors to focus on analysing the relationships existing among these concepts.

.....  
<sup>2</sup> The effects of brand associations on consumer response Belén del Río, (Facultad de Ciencias Economicas, University of Oviedo, Spain), Rodolfo Vázquez, (Facultad de Ciencias Economicas, University of Oviedo, Spain), Víctor Iglesias, (Facultad de Ciencias Economicas, University of Oviedo, Spain)

<sup>3</sup> Brand trust in the context of consumer loyalty **Elena Delgado-Ballester**, (Marketing Department, University of Murcia, Murcia, Spain), **José Luis Munuera-Alemán**, (Marketing Department, University of Murcia, Murcia, Spain)

S. N. Mahapatra, Jitender Kumar, Anand Chauhan <sup>4</sup>describes the primary purpose of this study is to explore the performance of different attributes in automobiles in giving satisfaction to the consumers by comparing the same performance with the performance of the product attributes when it was brand new and how these attributes performance satisfaction affecting consumers 'future purchase decision. Consumer satisfaction is a central concept in modern marketing thought and practice. The marketing concept emphasizes delivering satisfaction to consumers and obtaining profits in return. As a result, overall quality of life is expected to be enhanced. Thus, consumer satisfaction is crucial to meeting various needs of

consumers, business, and society. Data collected from the respondents in Dehradun city who are actually using the car. Consumers' satisfaction for these attributes (maintenance cost, fuel efficiency, comfortless, brake safety, vibration, pollution/emission, engine sound, ignition, battery performance, horn, wiper performance, pickup and light) are measured by using seven point interval scale. The product attributes used to measure satisfaction have shown a little variation in their performance when the consumers' compare the same performance with the car when it was brand new. Out of total thirteen attributes consumers are highly satisfied with the performance of attributes like ignition, vibration, wiper performance and pick up. It indicates that performance of these attributes has not been changed with time. It has been observed that product performance significantly influencing the consumers' future purchase decision. The product attributes such as pollution, ignition, battery performance and pickup are highly influencing the consumers' future purchase decision.

.....  
<sup>4</sup> Consumer Satisfaction, Dissatisfaction And Post-Purchase Evaluation: An Empirical Study On Passenger Cars In India S. N. Mahapatra♣ Deenbandhu Chhotu Ram University of Science & Technology Jitender Kumar Deenbandhu Chhotu Ram University of Science & Technology Anand Chauhan Deenbandhu Chhotu Ram University of Science & Technology, *International Journal of Business and Society*, Vol. 11 No. 2, 2010, 97 - 108

Afreen Choudhury, Muhammad Intisar Alam, describes that the research is aimed to measure the factors influencing dealers' perception regarding the mobile operators brand image in Bangladesh, their significance level and relative importance. The selected factors are – commission, convenience, promotion, after-sale service, consumer demand and earned profit; identified based on exploratory analysis. A descriptive research was designed to analyse the collected survey data through multiple regression analysis and discriminant analysis. Through the study six separate models have been developed for mobile operators that can be used to measure their brand image. Based on the findings, some recommendations are made to aid the decision making of the mobile operators for managing their brand image in dealers mind; which will definitely leave a positive impact to motivate the dealers to bring success for the entire industry. Moreover this study can be used as a reference for future studies to understand the perceptions and opinions of the other channel members and dealers as well.

Determining the Key Factors Shaping Dealers' Perception towards Telecom Operators' Brand Image- An Empirical Analysis Afreen Choudhury, Senior Lecturer, Department of Business Administration, East West University, Muhammad Intisar Alam, Lecturer, BRAC Business School, BRAC University

Ruth A.Wiendaw<sup>5</sup> describes Buyer behaviour is based on a complex process by which consumers choose, acquire, use, and dispose of goods and services in order to fulfil their needs and desires. To understand why a buyer makes a purchase, it is important to understand his/her needs and motivations. This knowledge enables the seller to better develop a strategy for convincing the potential buyer that the product or service will meet his/her needs. In addition, in order to better target one's marketing strategy, it is important to understand the buying situation, including the routineness with which the particular purchasing decision is made as well as the importance of the decision to the buyer. When the buyer is an organization, it is also important to recognize that although there may be one decision maker, there are typically many parties who can influence the final buying decision.

.....  
<sup>5</sup>Buying behaviour by Ruth A.Wiendaw, Ph.d Ebsco Research Starters copyright 2008 Ebsco Publishing Inc,\* All rights reserved.

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# **RESEARCH METHODOLOGY**

## CHAPTER 4 ANALYSIS AND INTERPRETATION

### 4.1 Bus body building-HCV

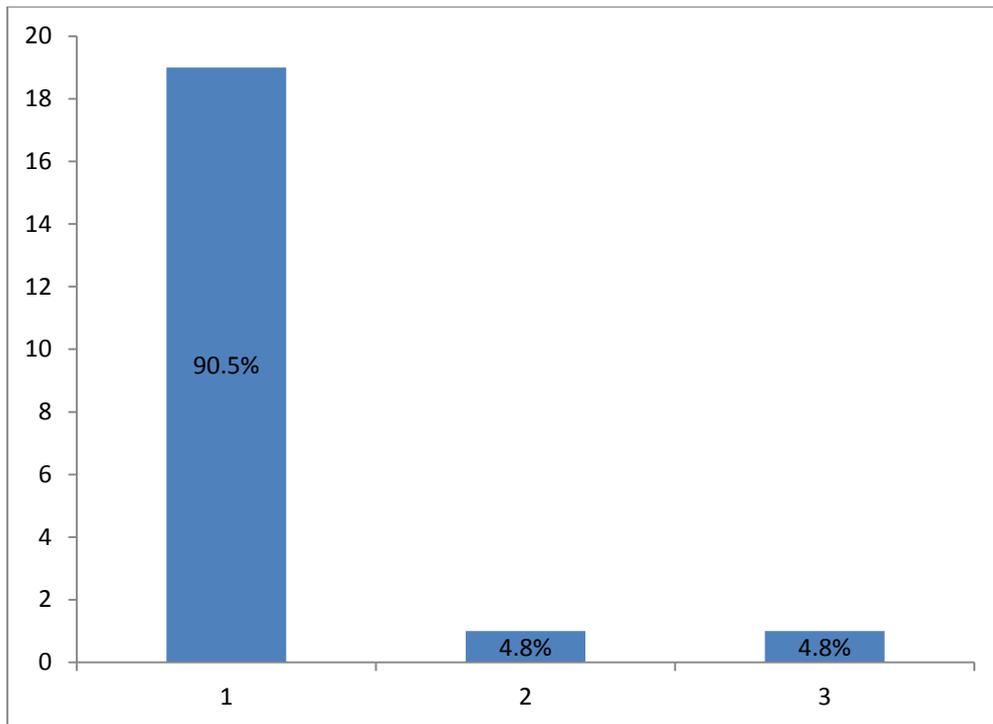
#### 1. Product Preference Table 2.1

Variables	No.of units	Percent	Cumulative Percent
product quality	19	90.5	90.5
brand reputation	1	4.8	95.2
product performance	1	4.8	100.0
Total	21	100.0	

**Interpretation:**

It can be interpreted from the table 1.1 is that the frequency of product quality is 19 out of 21 and hence it has 90.5%. Hence the customer prefers product quality than the brand reputation and product preference. Only 4.8% of the customers prefer brand reputation and product preference.

**Chart 1.1**



## 2. Cable used for single vehicle:

**Table 1.2**

Particulars	No of respondents	% of respondents
1 sq.mm	21	78
1.5 sq.mm	21	19
4 sq.mm	21	3

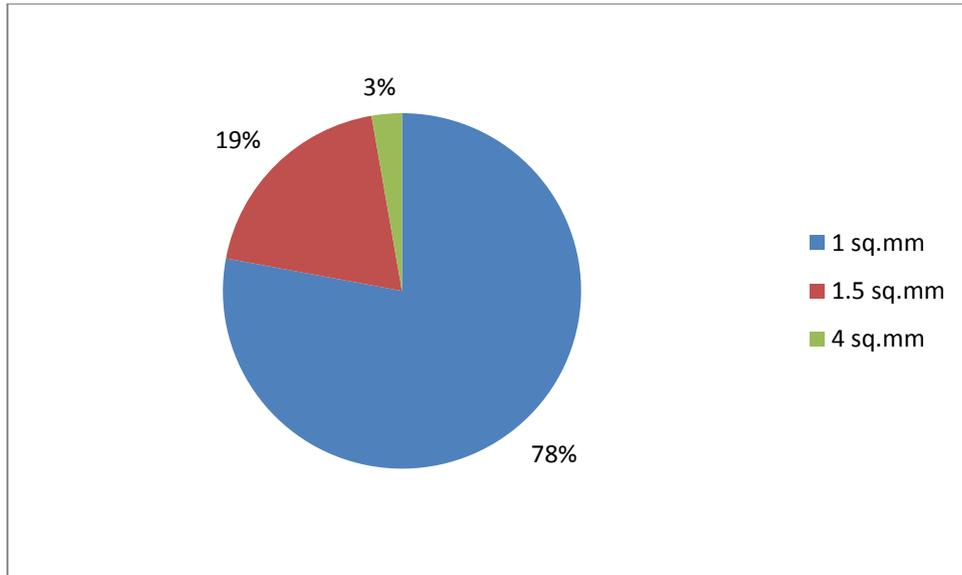
### Interpretation

The table 1.2 indicates that 78% of the respondents require 1 sq.mm.

Another 19 % of the respondents require 1.5 sq.mm.

Remaining 3% of the respondents requires 4 sq.mm used for single vehicle.

**Chart 1.2**



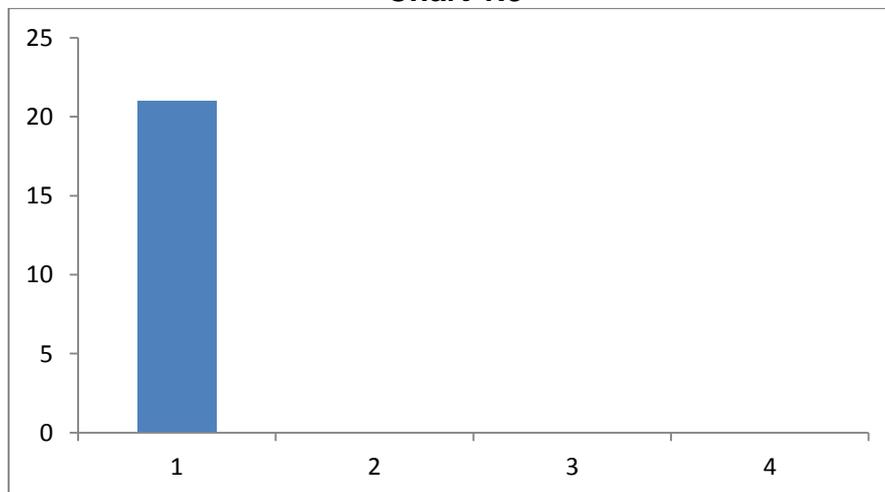
### 3. Type of packaging requirement:

**Table 1.3**

Particulars	No of respondents	% of respondents
25 mts	21	100
50 mts	0	0
100 mts	0	0

The table 1.3 indicates that all respondents require 25 meters for packaging requirements for coach industry.

**Chart 1.3**



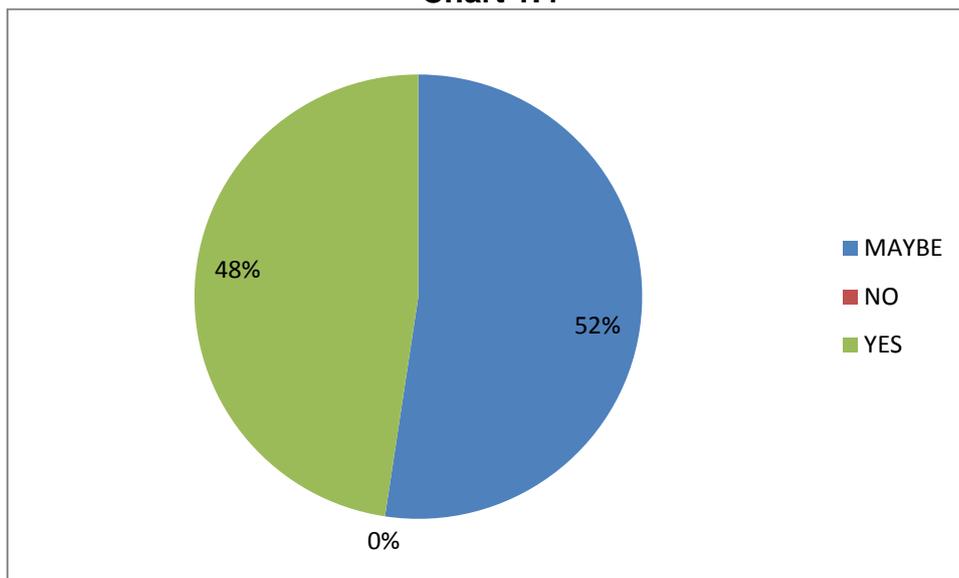
**1.4 Automotive electric cable:  
Table 1.4**

Particulars	No of respondents	% of respondents
Yes	10	48
No	0	0
May be	11	52

**Interpretation**

The table 1.4 shows that 52 % of the respondents moderately agree that they are willing to try automotive electrical cable from roots brand. Another 48% of the respondents strongly agree that they are willing to try automotive electrical cable from roots brand.

**Chart 1.4**



**1.5 Ranking of requirements:  
TABLE 1.5**

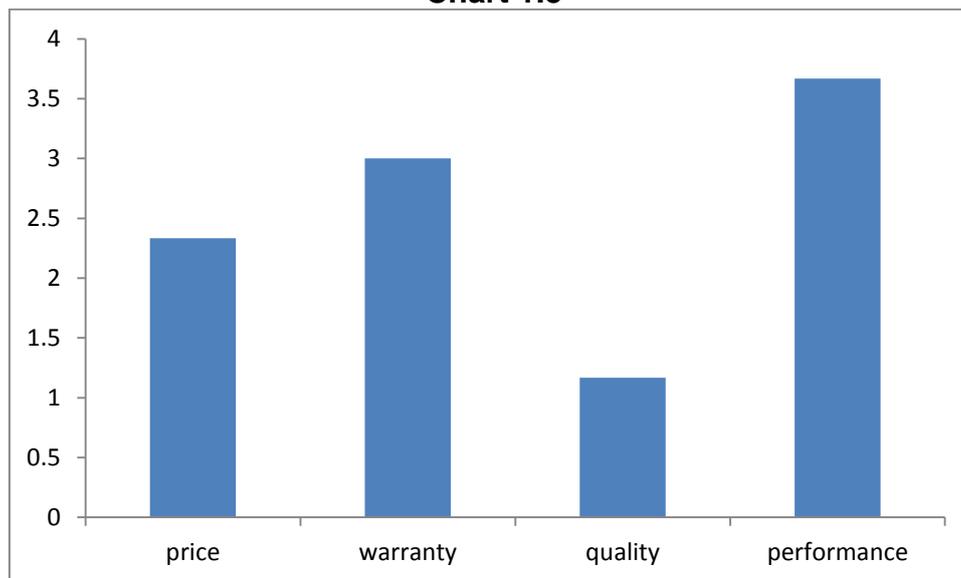
	price	warranty	quality	performance
Valid	21	21	21	21
Missing	0	0	0	0
Mean	2.1905	2.8095	1.5238	3.6190

	price	warranty	quality	performance
Valid	21	21	21	21
Missing	0	0	0	0
Mean	2.1905	2.8095	1.5238	3.6190
Std. Deviation	.81358	.67964	.87287	.74001

### Interpretation

The table 1.5 shows that the respondents rank first as quality with the mean of 1.52. The second rank that the respondent gives is price with the mean of 2.19. The respondents rank third as warranty as their important requirements with a mean of 2.80. The final rank is performance with the mean of 3.61 as the respondents' requirements.

**Chart 1.5**



### 1.6 Preference of colours:

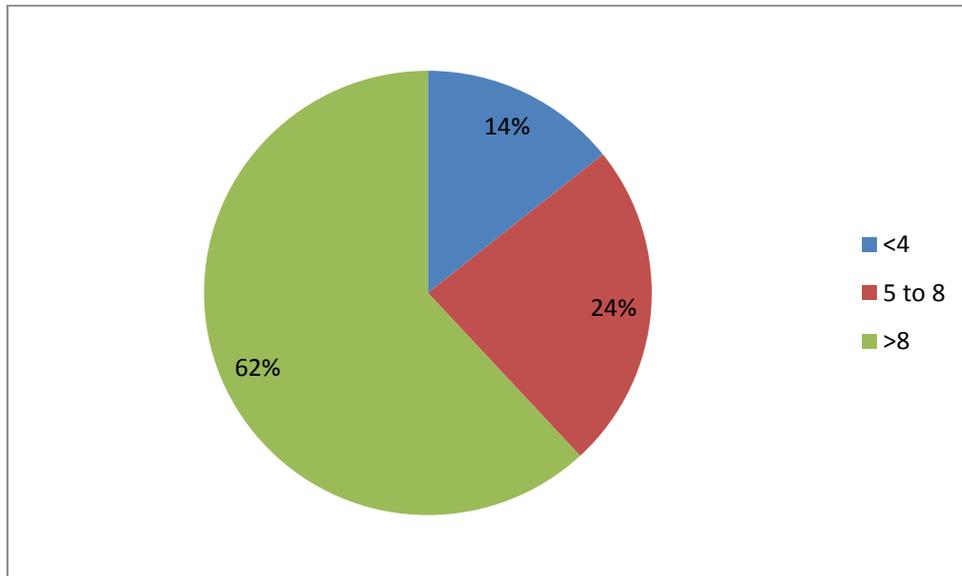
**Table 1.6**

Particulars	No of respondents	% of respondents
<4	3	14.3
5-8	5	23.8
>8	13	61.9

### Interpretation

The table 1.6 shows that 61.9% of the respondents prefer colours as greater than 8. Another 23.8% of the respondents prefer colours as 5-8. The remaining 14.3% of the respondents prefer colours as less than 4.

**Chart 1.6**



## **4.2. Truck body buildings-HCV**

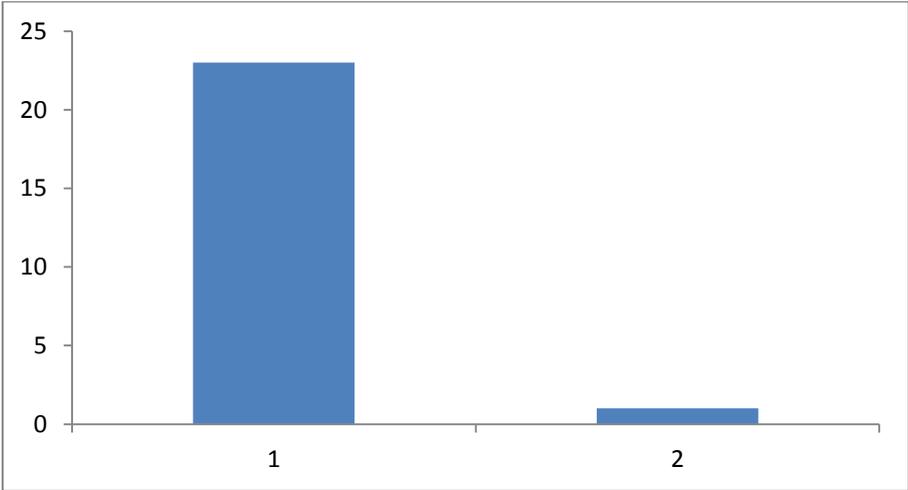
### **2.1 Product Preference: Table 2.1**

variables	No of units	Percent	Cumulative Percent
product quality	23	95.8	95.8
brand reputation	1	4.2	100
Total	24	100.0	

**Interpretation**

It can be interpreted from the table 2.1 is that the frequency of product quality is 23 out of 24 and hence it has 95.8%. Hence the customer prefers product quality than the brand reputation. Only 4.2% of the customers prefer brand reputation.

**Chart 2.1**



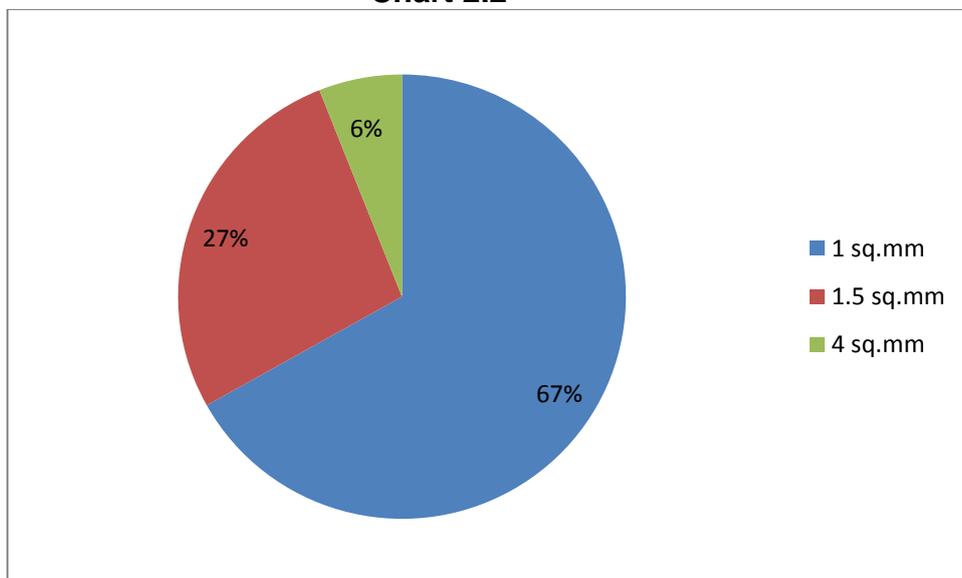
**2.2 Cable used for single vehicle:  
Table 2.2**

Particulars	No of respondents	% of respondents
1 sq.mm	24	67
1.5 sq.mm	24	27
4 sq.mm	24	6

**Interpretation**

The table 2.2 indicates that 67% of the respondents requires 1 sq. mm. Another 27 % of the respondents require 1.5 sq. mm Remaining 6% of the respondents require 4sq.mm used for single vehicle.

**Chart 2.2**



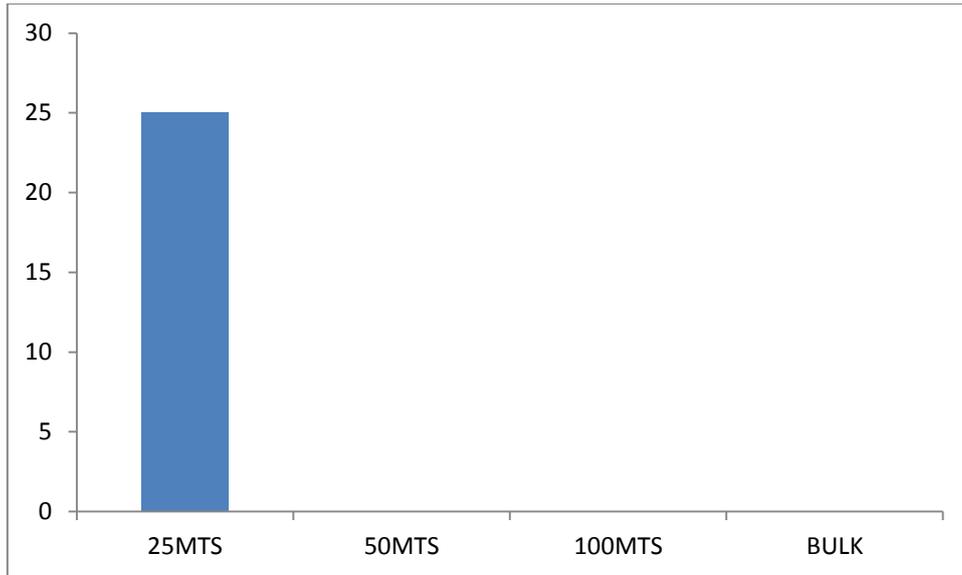
**2.3 Type of packaging requirement:  
Table 2.3**

Particulars	No of respondents	% of respondents
25 mts	24	100
50 mts	0	0
100 mts	0	0

**Interpretation**

The table 2.3 indicates that all respondents require 25 meters for packaging requirements for coach industry.

**Chart 2.3**



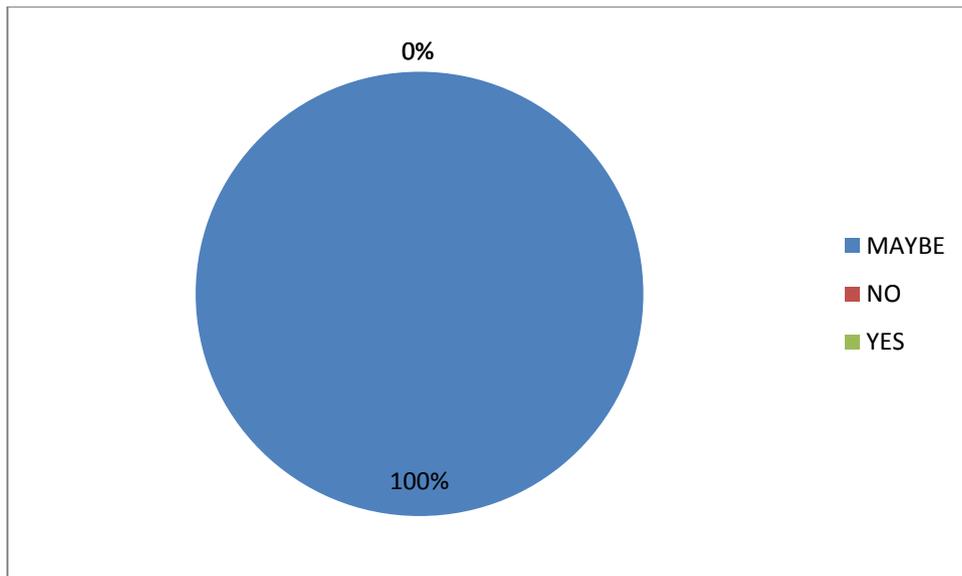
**2.4 Automotive electric cable:  
Table 2.4**

Particulars	No of respondents	% of respondents
Yes	0	0
No	0	0
May be	25	100

**Interpretation**

The table 2.4 shows that 100 % of the respondents moderately agree that they are willing to try automotive electrical cable from roots brand.

**Chart 2.4**



**2.5 Ranking of requirements:  
Table 2.5**

**Statistics**

		price	warranty	quality	Performance
N	Valid	24	24	24	24
	Missing	0	0	0	0
	Mean	2.3333	3.0000	1.0000	3.6667
	Std. Deviation	.76139	.00000	.00000	.76139

**Interpretation**

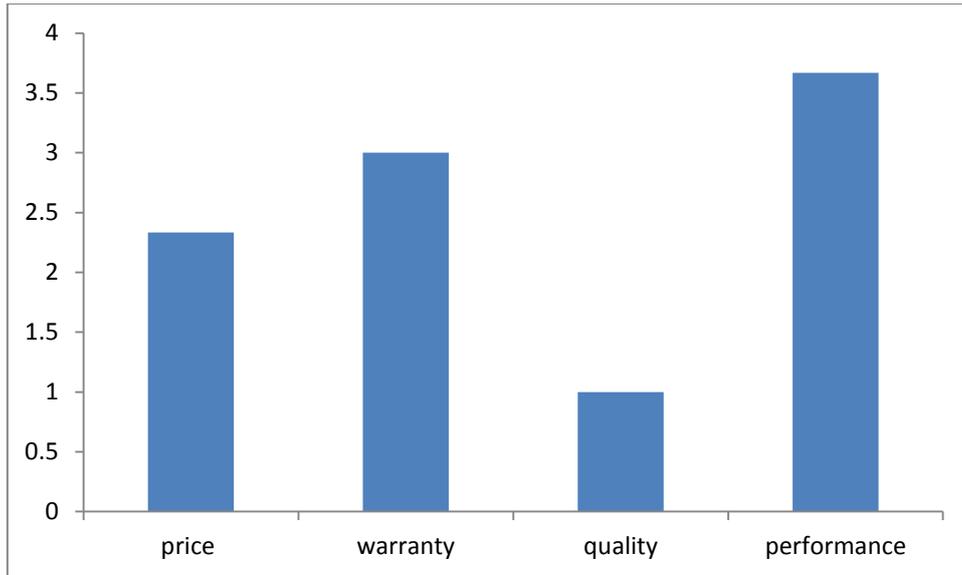
The table 2.5 shows that the respondents rank first as quality with the mean of 1.0000

The second rank that the respondent gives is price with the mean of 2.3333

The respondents ranks third as warranty as their important requirements with mean of 3.0000

The final rank is performance with the mean of 3.6667 as the respondents' requirements.

**Table 2.5**



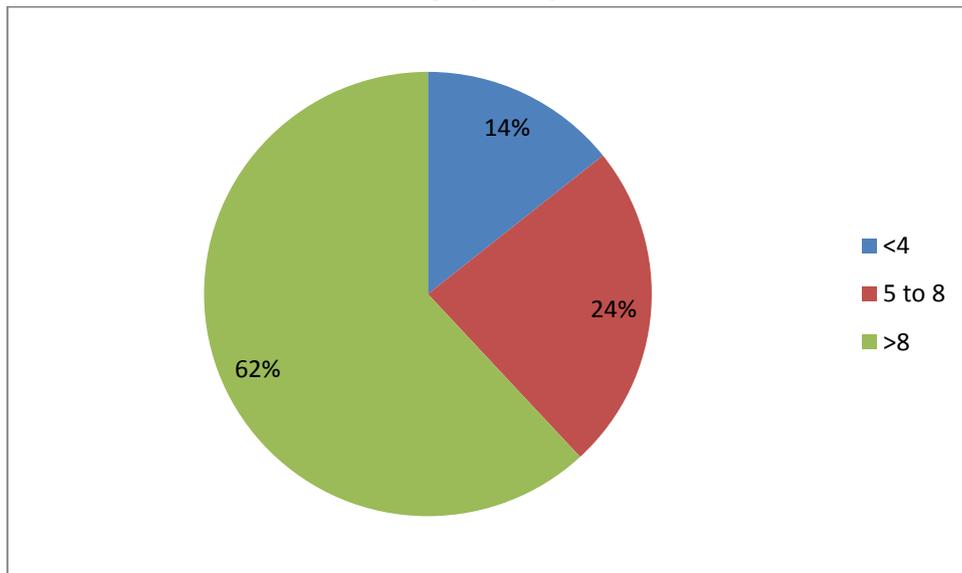
**2.6 Preference of colours:  
Table 2.6**

Particulars	No of respondents	% of respondents
<4	4	16.7
5-8	20	83.3
>8	0	0

**Interpretation**

The table 2.6 shows that 0% of the respondents prefer colours as greater than 8. Another 83.3% of the respondents prefer colours as 5-8. The remaining 16.7% of the respondents prefers colours as less than 4.

**Chart 2.6**



### 5.3 Maxi cab -LCV

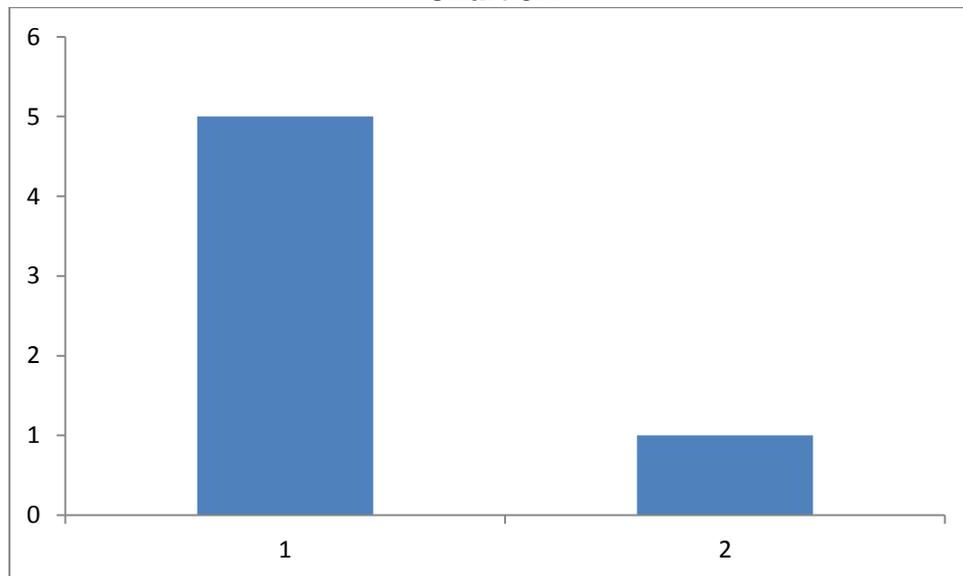
#### 3.1 Product Preference Table 3.1

Variables	Frequency	Percent	Cumulative Percent
product quality	5	83.3	83.3
brand reputation	1	16.7	100.0
Total	6	100.0	

#### Interpretation

It can be interpreted from the table 3.1 is that the frequency of product quality is 5 out of 6 and hence it has 83.3%. Hence the customer prefers product quality than the brand reputation. Only 16.7% of the customers prefer brand reputation.

Chart 3.1



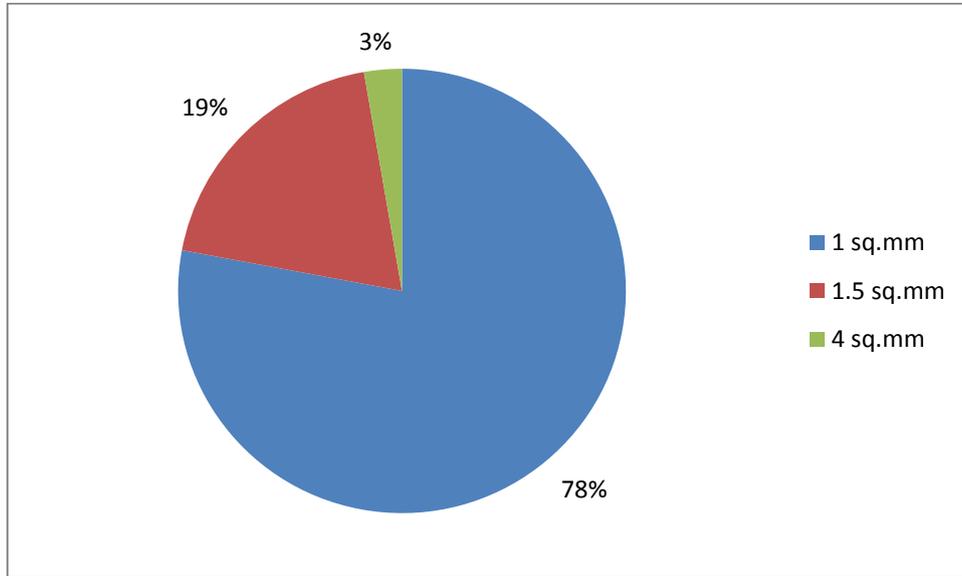
#### 3.2 Cable used for single vehicle Table 3.2

Particulars	No of respondents	% of respondents
1 sq.mm	6	77
1.5 sq.mm	6	19
4 sq.mm	6	4

**Interpretation**

The table 3.2 indicates that 77% of the respondents require 1 sq.mm. Another 19 % of the respondents require 1.5 sq.mm. Remaining 4% of the respondents requires 4 sq.mm used for single vehicle.

**Chart 3.2**



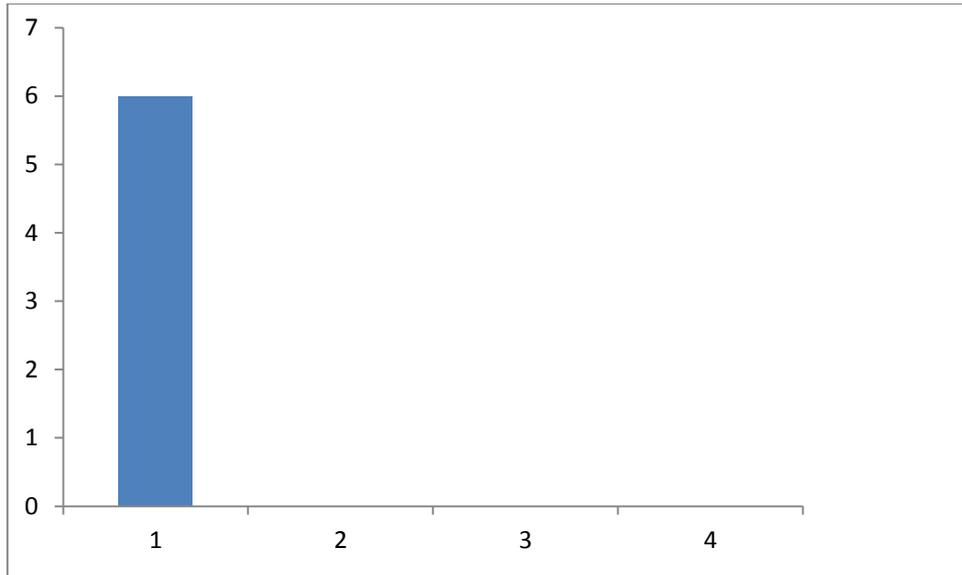
**3.3 Type of packaging requirement:  
Table 3.3**

Particulars	No of respondents	% of respondents
25 mts	6	100
50 mts	0	0
100 mts	0	0

**Interpretation**

The table 3.3 indicates that all respondents require 25 meters for packaging requirements for coach industry.

**Chart 3.3**



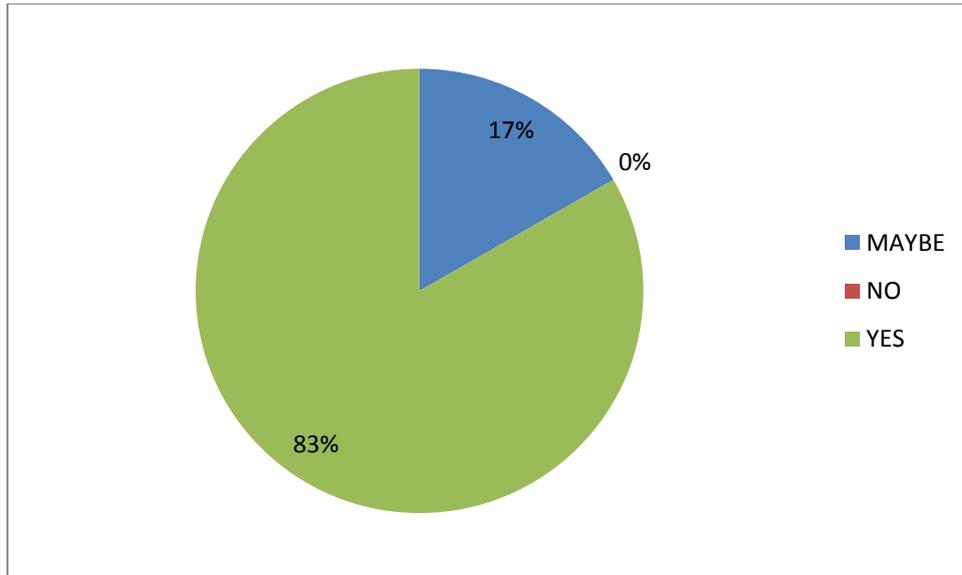
### 3.4 Automotive electric cable: Table 3.4

Particulars	No of respondents	% of respondents
Yes	1	17
No	0	0
May be	5	83

#### Interpretation

The table 3.4 shows that 83 % of the respondents moderately agree that they are willing to try automotive electrical cable from roots brand. Another 17% of the respondents strongly agree that they are willing to try automotive electrical cable from roots brand.

Chart 3.4



**3.5 Ranking of requirement**  
**Table 3.5**

		price	warranty	Quality	performance
N	Valid	6	6	6	6
	Missing	0	0	0	0
Mean		2.3333	3.0000	1.1667	3.6667
Std. Deviation		.81650	.00000	.40825	.81650

**Interpretation**

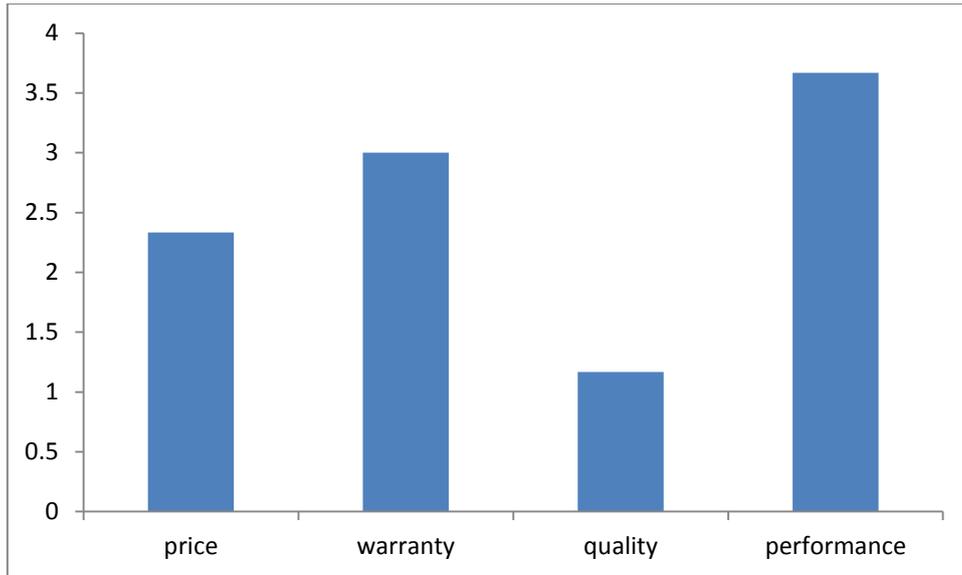
The table 3.5 shows that the respondents rank first as quality with the mean of 1.17.

The second rank that the respondent gives is price with the mean of 2.33

The respondents ranks third as warranty as their important requirements with mean of 3.00

The final rank is performance with the mean of 3.67 as the respondents' requirements.

**Chart 3.5**



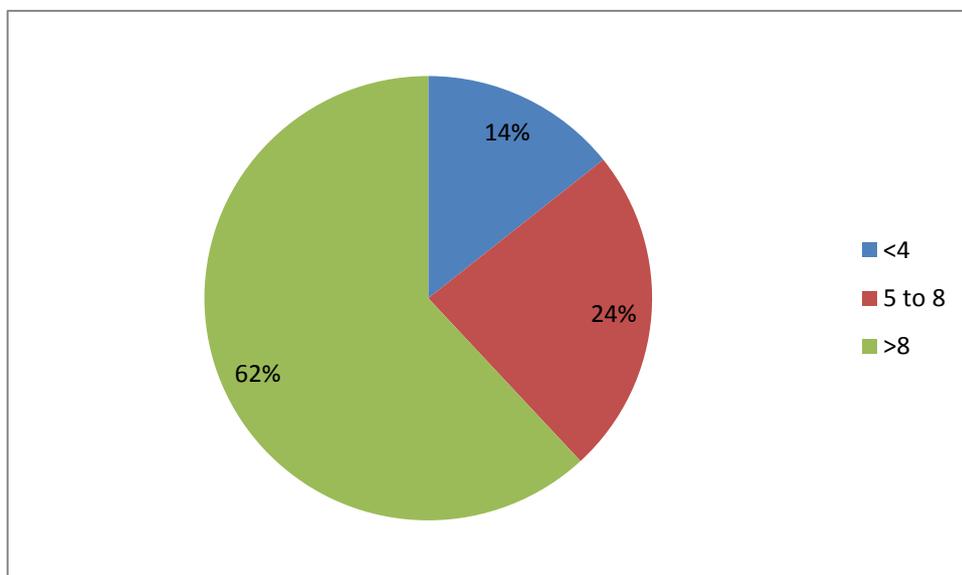
### 3.6 Preference of colours: Table 3.6

Particulars	No of respondents	% of respondents
<4	1	16.7
5-8	2	33.3
>8	3	50.0

#### Interpretation

The table 3.6 shows that 50% of the respondents prefer colours as greater than 8. Another 33.3% of the respondents prefer colours as 5-8. The remaining 16.7 % of the respondents prefers colours as less than 4.

Chart3.6



#### **4.2 Chi- square analysis**

##### **Analysis of association between size of the cable and packaging requirement using chi square**

From the above table, it is interpreted that the significance value is 0.030 which is lesser than 0.05, so  $H_a$  is accepted. Hence there is association between size of the cable and packaging requirement.

**Table 4.1**  
**Chi-Square Tests**

	Degrees of freedom	Significance valve
Pearson chi- square	18	.030

##### **Analysis of association between size of the cable and colour preference of electric cable using chi square**

**Hypothesis:**

Ho: there is no association between size of the cable and colour preference of electric cable.

Ha: there is association between size of the cable and colour preference of electric cable.

**Table 4.2**  
**Chi-Square Tests**

	Degrees of freedom	Significance valve
Pearson chi- square	4	.688

**Interpretation:**

From the above table, it is interpreted that the significance value is 0.688 which is greater than 0.05, so Ho is accepted. Hence there is no association between size of the cable and colour preference of electric cable.

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**FINDINGS, SUGGESTIONS AND  
CONCLUSION**

## **CHAPTER 5**

### **FINDINGS, SUGGESTIONS, CONCLUSION**

#### **5.1 FINDINGS**

##### **5.1.1 Bus body building units**

- That the frequency of product quality is 19 out of 21 and hence it has 90.5%. Hence the customer prefers product quality than the brand reputation and product preference. Only 4.8% of the customers prefer brand reputation and product preference.
  
- Hence the 78% of the respondents require 1 sq.mm , another 19 % of the respondents require 1.5 sq.mm and the remaining 3% of the respondents requires 2 sq.mm used for single vehicle
  
- All respondents require 25 meters for packaging requirements for coach industry.
  
- That the 52 % of the respondents moderately agree that they are willing to try automotive electrical cable from roots brand. Another 48% of the respondents strongly agree that they are willing to try automotive electrical cable from roots brand.
  
- The respondents rank first as quality with the mean of 1.52. The second rank that the respondent gives is price with the mean of 2.19.The respondents ranks third as warranty as their important requirements with mean of 2.80.The final rank is performance with the mean of 3.61 as the respondents' requirements.
  
- That the 61.9% of the respondents prefers colours as greater than 8. Another 23.8% of the respondents prefer colours as 5-8 and the remaining 14.3% of the respondents prefers colours as less than 4.

.  
.

### 5.1.2 Truck body building units

- That the frequency of product quality is 23 out of 24 and hence it has 95.8%. Hence the customer prefers product quality than the brand reputation. Only 4.2% of the customers prefer brand reputation.
- That the 78% of the respondents and remaining 3% of the respondents requires 4 sq.mm used for single vehicle. require 1 sq.mm, Another 19 % of the respondents require 1.5 sq.mm.
- All respondents require 25 meters for packaging requirements for coach industry.
- That the 52 % of the respondents moderately agree that they are willing to try automotive electrical cable from roots brand. Another 48% of the respondents strongly agree that they are willing to try automotive electrical cable from roots brand.
- The respondents rank first as quality with the mean of 1.52 ,The second rank that the respondent gives is price with the mean of 2.19 ,The respondents ranks third as warranty as their important requirements with mean of 2.80,The final rank is performance with the mean of 3.61 as the respondents' requirements.
- That the 61.9% of the respondents prefer colours as greater than 8. Another 23.8% of the respondents prefers colours as 5-8 and the remaining 14.3% of the respondents prefers colours as less than 4.

### 5.1.3 Maxi cab body building units

- The frequency of product quality is 5 out of 6 and hence it has 83.3%. Hence the customer prefers product quality than the brand reputation. Only 16.7% of the customers prefer brand reputation.
- That the 77% of the respondents require 1 sq.mm, another 19 % of the respondents require 1.5 sq.mm and the remaining 4% of the respondents requires 4 sq.mm used for single vehicle.
- All respondents require 25 meters for packaging requirements for coach industry.
- That the 83 % of the respondents moderately agree that they are willing to try automotive electrical cable from roots brand. Another 17% of the respondents strongly agree that they are willing to try automotive electrical cable from roots brand.
- The respondents rank first as quality with the mean of 1.17, the second rank that the respondent gives is price with the mean of 2.33 ,the respondents ranks third as warranty as their important requirements with mean of 3.00 and the final rank is performance with the mean of 3.67 as the respondents' requirements.
- That the 50% of the respondents prefer colours as greater than 8. another 33.3% of the respondents prefers colours as 5-8, and the remaining 16.7 % of the respondents prefers colours as less than 4.

## **5.2 SUGGESTIONS**

- The Company should give their best quality on the product.
- The brand should be priced less than other brands.
- The company can go for 25 meters cables package alone because that has more demand in the market
- The wire sleeve should be thicker than current wires.
- The company can give Warranty to the cables.
- The company can come out with free sample of cables to customers so that customers can try the products so that it influences them to purchase the products.
- A standard colour for the cables can be set.
- The company can manufacture only 1 & 1.5 sq.mm cables; it is only mostly used in vehicles.

## **5.3 CONCLUSION**

The auto components industry is very vast and it has a large number of global and local players. The industry is transforming and there were many new players entering into the market in last few years. The Electrical cables are most widely used in all vehicle types.

The Electrical cables are the fastest moving automobile products and they have a wide market. Marketing Research has been conducted to identify the leading players in the Electrical cables segment and it is found that Shanco cables are mostly preferred in bus industry and Maxi cab industry, whereas Finolex is preferred in truck industry. The above brands are selected by the dealers focus mainly on product quality.

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Brand trust in the context of consumer loyalty Elena Delgado-Ballester, (Marketing Department, University of Murcia, Murcia, Spain), José Luis Munuera-Alemán, (Marketing Department, University of Murcia, Murcia, Spain)

Consumer Satisfaction, Dissatisfaction And Post-Purchase Evaluation:An Empirical Study On Passenger Cars In India S. N. Mahapatra♣ Deenbandhu Chhotu Ram University of Science & Technology Jitender Kumar Deenbandhu Chhotu Ram University of Science & Technology Anand Chauhan Deenbandhu Chhotu Ram University of Science & Technology, *International Journal of Business and Society*, Vol. 11 No. 2, 2010, 97 - 108

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Buying behaviour by Ruth A.Wiendaw, Ph.d Ebsco Research Starters copyright 2008 Ebsco Publishing Inc,\* All rights reserved.

[www.rootsindia.com](http://www.rootsindia.com)

[www.wikipedia.org](http://www.wikipedia.org)

[www.indianauto.com](http://www.indianauto.com)

1. Name of the dealer: .....

....

2. Address: .....

.....

.....

3. Name of the respondent: .....

4. Designation: .....

5. At present, do you building body for buses and trucks?

Yes  No

6. How many years /month have you been building body for buses and trucks: .....

.....

7. Which automobile segment do you deal with? .....

8. Which is your most frequently used cable?

.....

9. How many meters of cable used for single vehicle?

.....

10. Which brand cable do you prefer for the vehicle?

.....

11. Why do you prefer the above mentioned brand/brands?

a. quality    b. price    c. discounts and offers

d. easy availability    e. door delivery options

12. Mention leading cable manufacture in automotive segment?

Brand	Rank

13. Are you willing to try automotive electrical cable from Roots brand?

Yes     No     Maybe

14. What are the important requirements for the cable? Rank them

Characteristic	Rank
Price	
Warranty	
Life time	

15. What are the colours used in automotive electric cable?

.....

.....  
.....  
.....  
.....  
.....

15. Fill the following details

Speciation of the cable	Metre	Colour	Usage in the vehicle			
0.5 sq.mm						
0.75 sq.mm						
1.0 sq.mm						
1.5 sq.mm						
2.5 sq.mm						
4.0 sq.mm						
6.0 sq.mm						

16. How frequent complaints you facing now?

.....

Date: .....

Signature: .....

seal:

E-mail: .....

Phone no: .....