CHAPTER 1

INTRODUCTION

The buying patterns of the consumers takes a drastic conversion from the stage of ‘purchase of whatever may be available’ to ‘purchase the best from the vast competent choices available’ in fast moving consumer goods (FMCG). Unique individual expectations, preference for multiple options, knowledge and attitude, lifestyle and income and many more are the stimulators of buying behaviour driving the changing consumer needs for consumer products and its packaging. In addition to this, the buying behaviour of new generation consumers witnesses sharp changes due to telecommunication technology causing to search for more eco-friendly consumer products owing to environmental protection. This modern era reminds us of one significant fact that any FMCG product sold in the marketplace should use some kind of packaging. This packaging, especially which is in the form of plastics, paves way for heavy landfills, plastic spread environment everywhere, resulting in heaps of after use packs debris and subsequent sizable pollution. Government, corporates, industries and sometimes even environment friendly consumers, are looking for a solution of plastic free lands as most of FMCG packaging is in the form of light weight plastics that would take hundreds of years to decompose. As a result, green marketing gets adopted from the concept of social marketing over time recognising the social orientation of consumption patterns towards a safe environment. Moreover, research on environment based consumer product shows increased attention towards relationship between consumer buying behaviour for green products and green marketing approach by the corporates.
towards environmental protection thus giving rise to the concept of green packaging. Hence, this study contemplates green packaging of FMCG towards environmental protection thereby studies buying patterns of FMCG, consumer product packaging and flexible packaging, behaviour of the consumers towards green and environmental concepts, their opinion on green packaging, various environmental elements through green marketing and value created by green packaging.

1.1 FMCG INDUSTRY: AN OVERVIEW

FMCG also known as packaged goods are characterized by high turnover, move from shelves of the retail shops quickly and involve constant restocking (Shamsher 2012). The FMCG items are generally meant for daily or frequent consumption and have high returns. This segment is dominated by multinationals having strong distribution network and strong competition exists amongst these companies (Dhopatkar 2011). FMCG fulfil the basic requirements of consumers and are commonly called as small-ticket items that are necessary for buyers and households. Continued growth and development of “FMCG segment has remained potential owing to constant and steady development in shopper earnings,” says Sunil Duggal, CEO, Dabur India, the fourth largest FMCG company in India, with interests in healthcare. The most common items in FMCG are processed and packed foods, groceries, detergents, toilet soaps, shampoos, hair oils, toothpaste, household accessories, etc. The Indian FMCG sector stands fourth biggest sector in the economy with an overall market dimension of US$ 13.1 billion. Indian FMCG sector is the fourth largest of the Indian economy growing at a rate of 12 per cent per annum. FMCG’s compound yearly growth rate is 14.7 per cent estimating to touch US $110.4 billion by 2020 whereas CAGR of FMCG in rural is expected to grow by 17.7 per cent. According to a study by McKinsey Global Institute (MGI), revenues in India are likely to grow 3
times in subsequent two decades making the world's fifth major consumer market by 2025. It has robust multinational companies (MNC) existence and is categorised by a well-established circulation system, penetrating rivalries among the organized and chaotic sections and low operative cost. Cheaper labour costs, availability of key raw materials and presence across the complete value chain provides India a feasible advantage. Expanding Indian population, predominantly middle class and the rural sections, gains a chance to the marketers of branded products to translate consumers to branded goods. The transformation from the ‘kirana’ store to methodically organised retailing offers enormous prospects for the FMCG’s personal care, health care and food products. Growth in the sector is led by increasing urban and rural demand, changing buyer daily lifestyles, new product promotions, development of modern trade, and greater awareness about product brands and rising incomes which drive purchases. Mounting urbanisation, changes in consumer’s purchasing behavior, growing disposable income in rural and urban markets, increase in product consumption levels, altering life styles of middle income group, demands on innovative packaging by the consumers, rapid growth of three and four tier cities having a take-off in flexible spending, have been contributing in growing demand for FMCG (Shamsheer 2012). Also, FMCGs could ramp quickly in both urban and rural India only due to the small sized sachets made of flexible plastics, which enhanced an extensive retail distribution, favouring a higher perceived value to the consumers for what they paid for (Singh et al. 2011).

1.2 PACKAGING IN FMCG INDUSTRY

Packaging mirrors the image and uniqueness to the consumer about a company while branding a product (Mishra & Jain 2012). Today’s consumer never differentiates the consumer product from its package, where they look at the package also as a part of that particular product (Ahmed et al.
Packaging plays a vital role of protecting the product inside and attracting the consumer outside. Packaging has a significant part in allowing products to respond to the demands and needs of modern consumers. Packaging is a vital opportunity to build new brands or reinforce and add value to a positive experience of an existing product or brand. It also plays an important role in creating a product brand and in communicating with the consumer (Williams et al. 2008). Packaging and advertising are virtually known. Today’s packaging is an enormous, rewarding industry and habitually it is the technique that packaging gazes persuading the shopper to purchase the product inside it. Worldwide packaging expenditures are accomplishing US$500 billion proving package as a worldwide demanding instrument due to innumerable facets.

Several market features and consumer styles theme to the augmented role of product packaging in the marketing mix (Underwood 2003). Packaging, being the fifth ‘P’ of the marketing mix (Kotler et al. 1999) exhibits physical and psychological functions where it allows products to be protected, stored, transported and dispensed (Roper & Parker 2006). Packaging is considered in the value creation process of any FMCG product. Packaging value is demonstrated by brand equity, market segmentation, product differentiation, pricing, new product introduction and promotion (Deliya & Parmer 2012). Being one among the market principle comprising product, price, promotion and place, product packaging brings reputation both to the manufacturer and product (Auttarapong 2012). Distinctive effective packaging had been a vital communicative weapon in the marketing mix in introducing a product in the market, getting new and retaining existing customers. Being a silent salesman, packaging encompasses instant recognition of a brand, conveying brand messages (Blyth 2001). Knowing about types of packaging materials used in FMCG would be impeccable in order to understand their functions. Packaging materials in FMCG industry
are categorized into two types based on certain criteria among the sources of
generation such as primary and secondary packaging. Primary packaging
means the wrapping or container handled by the consumer which will be
mostly in the lightweight structures like flexible packaging. Secondary
packaging describes large cases or boxes that are used to group quantities of
primary packaged goods for distributions (Mayor 2001; Wokocha 2010).
Flexible packaging had been extensively implemented in several different
consumer product kinds as primary packing materials due to its strong
protection characteristics. Innovative strategies by such flexible packaging
had been introduced by many businesses which have rearticulated the events
of marketing. One such unique strategy is the smart introduction of pouches
and small sachet packets of detergents and shampoos for as low as Re. 1 or
Rs. 2 that has facilitated FMCG players to popularise and promote their
branded products and merchandises even among price and value sensible
consumers.

Srnivasan & Lu (2014) published an open report about packaging
trends and techniques for FMCG in designated European countries published
by “The European Organization for Packaging and the Environment”
(EUROPEN) which portrayed identification of six plastic resins contributing
to whole FMCG packaging as High Density Poly Ethylene (HDPE), Low
Density Poly Ethylene (LDPE), Polystyrene, Polyethylene Terephthalate
(PET), PVC and Polypropylene. PET and HDPE account for nearly 90% of
overall plastics among these six plastic resins in metric tonnes.

1.3 INDIAN PACKAGING INDUSTRY AND THE FMCG

The Indian packaging industry is a huge and diverse market, with
abundant contenders competing with each other contributing to the growth of
the intact industry. Increased growth of middle class, urbanisation and
liberalization of foreign entries and systematized retail sector are the
facilitators for growth and development in packaging industry (www.indiapackagingshow.com). By 2025, the Indian packaging industry will have an annual turnover of $32 billion from the current $24.6 billion. The overall turnover of packaging industry is about $550 billion in the world scenario where about $24.6 billion per annum is the Indian share. The annual growth rate of this sector is about 15 per cent per annum (Natchiappan 2014). The rise of Indian incomes will change the shape of country’s revenue pyramid where about 291 million people will be moving to a sustainable life from the phase of desperate poverty and the middle class population will further increase to 583 million from 50 million which is the current size (Mckinsey report 2007), which will further activate the packaging material consumption and thus, the packaging industry will breed extra. According to a report, as per the Indo-Italian chamber of commerce and industry, the core demand creators for packaging industry in India is food packaging, pharmaceutical, cosmetic and liquid packaging. In the entire NCR, there are nearly 1,500 packaging players in the industry having around 400 to 500 units functioning only in the twin cities of Noida and Greater Noida. Most of the packaging industries are chaotic and require proper assistance and regulations.

The Aranca report about packaging industry states that demand of packaging industry is likely to be further driven by smaller pack sizes, and Indian companies should be highly innovative to reach this target market by launching products in enormous small size packs called “sachets” and “pillow packs” which contain a wide variety of products from food and processed foods to personal care products. Also traditional fragments like savory snacks, biscuits, spices and condiments are being launched in smaller packages to cater to the rural market.

Development in this sector probably remains strong as in other packaging segments, from traditional products migrating with new categories,
and from other expensive forms of packaging to flexible pouches. Some recent innovations in this category are the introduction of re-closable packs and packs that have a spout and screw cap; which aids to pack spices, condiments, pickles, jams, sauces, ketch-ups, juices etc. and can also be made from aseptic packaging materials. These innovations could find improved application in other categories and may take extra shares from rigid plastics. A new style is the increasing usage of flexible films even in beverage and water packaging. With innovative materials being used this category is likely to see a great growth as companies start presenting individual portions of beverages in flexible packs. Amul and Mother Dairy have launched their buttermilk and ‘lassi’ beverage in such packs that need to be refrigerated but considerably decrease the transportation and packaging budgets. Therefore, it is sure that Indian packaging industry is facing penetration of flexibles for innovation and market capture.

1.4 IMPACT AND INTEGRATION OF PACKAGING ON CONSUMER BUYING BEHAVIOUR PATTERNS

Today’s packaging is being presented under functional, industrial, social and legal parameters proving with more and more innovative strategies every day. This research study has taken reference from various studies representing packaging as a vital element in consumer buying decisions which lead to study the relationship between impact and integration of packaging. Therefore, knowing very basic buying habits, patterns and shopping behaviours becomes necessary before understanding the perceptions of advanced packaging aspects such as flexible packaging and green packaging. Family’s monthly spending on FMCG, frequency of FMCG purchased in a month, impulse buying - packaging as an measure in the decision of “selected from shelf” or “list prepared” purchases of FMCG, handling behavior for the products that are purchased, importance of package influence in brand
selection in buying FMCG, quantity usually preferred in packaging for purchase per time, attributes in the package that made the consumer to buy any FMCG product, printed information generally observed or read on the packaging of FMCG, adequacy of regulatory compliances about relevant information that is seen on the package and number of FMCG plastic covers cut open a day approximately are the variables used for exploring the impact and integration of packaging in consumer buying are studied basically to know respondents behaviour related to packaging.

1.5 FLEXIBLE PACKAGING INDUSTRY AND THE INDIAN SCENARIO

New concepts in packaging revolutionises the sales and businesses dramatically. Flexible packaging, the protagonist of the present study has been the forerunner of all the innovations happening in the packaging industry. Demand for flexible packaging in India is likely to persist strong, due to proportionate lower cost of packaging and continuous innovation by leading players who are launching novel materials and products for the industry. The Indian flexible packaging industry comprises a combination of unorganized small and medium local companies and organized large international and Indian companies. Indian flexible packaging industry has a tremendous growth due to the modern technology and equipment, advent of multinational companies, vast product availability catering the rising population and developing urbanization.

A novel flexible packaging allures the consumer with its attractive wrapping, wins them over with the easy-to-use features, pushing primary functions like security, product protection and of course, longer shelf life. Such novel innovative packaging revolutionising the consumer market is the concept of sachet which boosted the sales when food products such as masalas, pickles, health drinks, tea and coffee were made available in those
tiny one time use only packets. It ruined all records as it perforated the rural market, boosting sales to a record high. Worldwide, it has established as the darling of the packaging industry. Matching the strides of a rapidly urbanizing population, with higher disposable incomes, which is ushering a reign of consumerism, flexipacks are having a ball. The urban demand of departmental retailing and rural demand of unit packaging requirements are also the key drivers in growth of plastic flexibles sector. In the extreme competitive marketing situation (Zeko et al. 2012), convenient small packages increased sales and consumption of packed products collectively. This small package called sachet culture has been the successful marketing strategy for multinationals to penetrate in to both rural and urban emerging markets of the underprivileged buyers of the economy.

As FMCG is customarily packed using flexible plastic packaging, it is necessary to understand the scenario of Indian flexible packaging industry. The global plastic film and sheets of the flexible packaging industry market is forecast to reach 56.6 million tons by 2017, with a growth rate of 7-8 percent each year principally being driven by escalating demand from competitive advantages, technological advancements and end-use markets over regular paper and foil. PE (Polyethylene) films which form the building block of flexibles adds to a lion’s share of worldwide plastic films and sheet market (Jose 2012). Around 84% of metallized films are used in flexible packaging. The current flexible packaging market in India is projected at 2 million tonnes, which is rising at a rate of 14-15% yearly (Noble printing press report 2010). As per world packaging association, global consumer flexible packaging market would encompass 22.5 million tons by the end of 2016 with a substantiating fact of 24 per cent increase in the past five years. India and China together would contribute to 44 per cent of total world’s flexible packaging consumption for their consumer products.
Flexible packaging, a light weight format comprises multi-layered laminated sheets of single or a blend of substrates such as plastic, paper or aluminium according to the Indo-Italian chamber of commerce and industry. Flexible packaging is produced from metal, paper, film, plastic, aluminium foil, or any combination of these materials (Rao 2008). Flexible packaging treasures speckled use due to its ability to moisture resistance, providing strength, gloss, aroma retention, low odour, grease resistance, printability and heat retention. Flexible packaging has gained vast acceptability even with its light weight properties, it renders protection to the product packed in against threats like moisture, heat, elemental and chemical reaction (www.indiapackagingshow.com). Plastics used in thermal processing fulfil a high thermal resistance and strength after heat application having good barrier properties against water vapour, light and gases. A plastic pouch is regarded safe from the microbiological point of view. To fulfil the properties of retortable plastic pouches, positive properties of various plastics are combined to form laminates. This allows the optimisation of sealing properties and barrier effects of retort pouches due to the integration of three to six layers (Lamberti et al. 2007).

Plastics, which are the major substrate of flexibles, are the material of the new millennium. Flexible packing materials are obtained from the plastics by several conversion processes based on their properties adopted for sachets and pouches to fit consumer products packaging. Flexible packaging materials provide sustainable benefits through continuous innovation, source reduction and packaging proficiencies to the participants such as consumer product manufacturers, retailers and consumers (Waghchoure 2012). Asides the normal products packed in flexible packaging; its usage in India includes certain novel applications not commonly seen in the developed world.
Consumer products like fairness creams, toothpastes, toothpowders, sauces and ketchups, jams, etc., in laminated pouches are greatly innovative and are not used in the world elsewhere as per the Indo-Italian chamber of commerce.

1.7 CHALLENGES FOR FLEXIBLE PACKAGING INDUSTRY

Plastics in flexible packaging are facing pressure because of issues of environmental protection and safe disposal. These issues act as a major obstacle in flexible packaging becoming an all-pervasive medium. Flexible plastics have always been viewed as a necessary evil in the environmental sense. Due to the poor recycling set-up and low weight of flexible films, this category of products is amongst the smallest recycled materials in India. It is estimated that almost 80 percent of the material that is discarded after use finds its way to landfills and garbage dumps as per the Aranca report prepared for the ASSOCHAM packaging summit 2012. Mentioning the impact of flexible plastics on Indian metropolises and environment, the Supreme Court of India banned the use of flexible plastics/sachets for tobacco products and the usage of thin plastic carry bags in retail shops. Dealing with the solid waste surplus generated by a consumer product packaging has become the frontier challenge in the packaging industry. The key challenge in India is to handle the packaging solid waste management in a proper manner. Accumulation of solid waste is due to the growing packaging consumption and discarding the same (Saha 2014).

1.8 ENVIRONMENTAL CONCERNS IN PACKAGING: PERSPECTIVE SCENARIO

Packaging has given rise to environmental concerns and has been on the political conservational agenda for years, mainly due to the volume of leftovers coming from used packages. Environmental concerns have led to governments throughout the world taking steps to deal with the issue of
packaging waste and recycling (www.worldpackaging.org). From the findings of Wokocha (2010), following conclusions were drawn regarding packaging on environment: 1. The attitude of consumers towards packaged products is not satisfactory, 2. Packaging materials has adverse impact on the natural environment and 3. Packaging materials affect human health. Packaging is a fundamental element of almost every food product and a vital source of environmental burden and waste (Roy 2009). In the past few years packaging waste has not only caused increasing environmental pollution, but also it wastes valuable resources (Xie et al. 2011). Millions of tons of packages are discarded as solid waste each year with a presence of plastics packages that make up 75 percent of the average household dustbin is of grave concern because of its potentials harm to the environment and the public health (Wokocha 2010). In developing countries like India, plastics, those are thrown ubiquitously and chaotically in a negligent manner, get consumed by grazing cattle thus becoming dangerous to the livestock. Moreover, during their breakdown in the soil, additives of the synthetic polymers release toxic elements which are harmful to the environment as they take years to disintegrate. Sachets made from plastic polymers have become a bigger part of the waste management problem which needs to be resolved by the FMCGs and government in no matter of time. Packaging waste has not only instigated increasing environmental pollution in the past few years but also involve in wasting the resources. Due to the relatively short life cycle of many consumer products, the volume of packaging on the market is almost closely identical to the quantity of packaging waste (Xie et al. 2011).

Originally watched as an aesthetic problem, littering is currently treated on an imperative ecofriendly priority. Litter not only lowers the aesthetic appeal of public places including streets, roads and waterways but can also destroy water quality, jeopardize and kill the wildlife, and result in flooding by blocking drainage systems (Rees & Pond 1995; De Long et al.
1999; Porter 2002). A single packaging design or even a single physical package contributes both to the total ecoburden (related to the needs of the future generation) and to the fulfilment of the ‘present needs’ (Wever 2013). Also, the environmental humiliation they cause raises a big question mark and drives everyday research for an alternative. It becomes necessary that the packaging development, as well as future regulations, results in a reduction of the environmental impact of the entire food chain. Aarnio & Hamalainen (2008), in his study stated that the packaging industry should also offer packaging made from alternative materials and with improved functionality. As the package qualities are fixed early in the development process, the environmental demands must be made clear at the outset to achieve packs with high environmental performance.

1.9 GREEN MARKETING CONCEPT ARISING FROM ENVIRONMENTAL PRESSURES

‘Economic growth is necessary but there is a fundamental realization that ecology is an absolutely essential component’- Of course concern for the environment has become one of the most important present day issues and companies must consider the above ecological impression of a product all through its broad lifespan cycle. The existing status of plastics recycling suffers from major problems from the financial and biological points of view. Firstly, it is still very expensive. Then, mainly for this cause, huge quantities of post-consumer plastics have been wasted by being deposited in landfills (Patel et al. 2000). Consequently, environmental protectionism becomes one among the social components for the strategic success of any consumer product as per corporate perspective (Freestone & McGoldrick 2008). Every aspect of the product namely designs, production process, packaging, transportation, storage, usage and discarding, affords chance and an opportunity for a company to not just safeguarding the environment but benefit from progressive consumer outlooks and attitudes towards the environment (Marc 1995). Hence arises the concept and scope of
green marketing which is much broader, as indeed for marketing in general and should also be regarded as a philosophy which guides the performance of the whole organization (Antonio 2006). In order to safeguard the environment by the essence of ethical green marketing practices by corporates and increase the willingness of consumers to purchase green products, green marketing commenced. Green marketing or sustainable marketing or environmental marketing, which is viewed by Polonsky & Rosenberger (2011), as an effort by an enterprise to design, promote, advertise, price, transport and distribute products in a fashion which encourages environmental protection and security. Chamorro & Banegil (2006) stated in their study that green marketing is not only impartial practices and systems conceded to design and intended to commercialize green products nevertheless regarded as a value leading the concert of the total business. Considering to be connected with biodiversity and sustainability (Dagher & Itani 2014), green marketing became a part of corporate social responsibility.

(Source: Wanninayake & Randiwela 2008)

**Figure 1.1 Conceptual green marketing model**
Contemporary environmentalism became much active in 1960s in the United States, commencing from 1950s. Due to the heavy public pressure, it got headed to National Environmental policy act of 1969. The market stumbled upon considerable environmental clashes during 1970s (Kassarjian 1971; Chen 2010) providing upsurge to green marketing notion. According to the American Marketing Association, green marketing specifies the marketing actions by the products that are supposed to be environmentally harmless, and integrates a comprehensive array of activities, comprising product alterations, modifications to the production methods, packing changes, and transforming advertising. During 1990s, studies showed that consumers started showing a strong preference for green products and packages for a safe environment. Enhancing protection to environment was so intensified during this period, identifying the decade as the ‘decade of the environment’ or as the ‘the Earth decade’. Therefore, green marketing which includes packaging changes focuses on consumer research based on green packaging attributes. So companies and people who were concerned about the environmental protection started thinking about green packaging and in fact they would want to engage themselves in green protection.

The environmental infirmity generated by plastic based flexibles from the products and packages the consumers used and discarded got developed into ‘the concept of thought’ by the consumers and researchers. Consumers considered more on social and environmental factors in making their purchasing decisions. As buyers believe that their contribution to protect the environment is the need of time, their behaviour towards purchase of consumer products and discarding patterns started changing (Mishra & Jain 2012). This goes accordance to the theory of planned behaviour, with consumer’s intention towards the belief of protecting the environment by contributing towards green purchases. Concern for the environment started growing along with consumer behaviour, and as per the theory of planned
behaviour, consumers are showing their attitude towards behaviour, subjective norms, and perceived behavioural control, together shaping behavioural intentions and behaviours. This behaviour made the consumers to play an active role in solving environmental problems by choosing environment friendly packaging, consumption and disposal patterns (Rokka & Uusitalo 2008; Thogersen 1996) of fast moving consumer products.

1.10 ASPECTS TOWARDS ENVIRONMENT AND GREEN PACKAGING

Looking for the relationship between four environmental aspects of this study - environmental problems, environmental concern, environmental knowledge and environmental information towards green attitude, necessity for green packaging becomes significant in development of theory, policy verdicts and methodological causes. The major criterion which the companies incorporate in their products while practising green marketing is to use environmental friendly, biodegradable, recyclable and reusable package materials to pack their products (Oyewole 2001; Jain & Kaur 2004 Chen 2013). As a result, green packaging demand obtains and gains significance in packaging consumer products. Moreover, earlier research conducted by Mohammad & Zakersalehi (2012); Rokka & Uusitalo (2008); Barber (2010); Koutsimanis et al. (2012) have established a substantial association between green packaging and preference for green packaging in consumer product selection (Isa 2013). Furthermore, the key philosophy of packaging is that it must be gentle to the environment (Singh et al. 2011). These concepts deliver a strong platform to perform this contemporary research in order to reconnoitre the environmental elements as antecedents of green attitude anticipating green package opinion among the buyers. The intention of this current research is to identify and explore whether the elements such as environmental problems, environmental concern, environmental knowledge,
environmental information among the consumers has led to the need of green packaging with green attitude umpiring the requirement of green packaging of FMCG in an Indian cultural scenario.

1.11 GREEN PACKAGING OR ECO FRIENDLY PACKAGING OR BIODEGRADABLE PACKAGING OR ENVIRONMENTAL FRIENDLY PACKAGING

The terms green packaging or eco-friendly packaging or biodegradable packaging or environmental friendly packaging denotes the same meaning as mentioned by Singh et al. 2011. The green packaging market obtaining consistent growth during 2011-21, is largely susceptible to the budding alarms over environmental hazards, carbon emissions, eco-friendly packaging, and waste reduction objectives indicated by various countries. All these factors have given a boost to sustainable and green packaging solutions in India (Mitra & Pandya 2012). Corporates, government and even eco-conscious consumers are looking for a more holistic view with strong vertical integration towards packaging efficiency for a safe environment. Packaging has led to vast environmental concerns irrespective of its various advantages and this concern has accelerated the search of biobased packaging materials. Environmental friendly packaging material is being demanded by the consumers either by reducing the packaging or recycling or disposing safely (Bech-Larsen 1995). Eco-friendly packaging materials, also known as environmental friendly or green friendly or nature friendly packaging materials are packaging that use environment safe materials in its manufacture thus to impose minimal or no harm to the environment (Singh et al. 2011).

Though the packaging history cringes from leaves, shells, hollow logs, dried gourds, baskets, pottery and tree bark in the first century, it steered to glass, paper, and paperboard, metals like tin and aluminium in impending
centuries. Plastic films have revolutionized the packaging industry in the twentieth century due to its high moldability to the required product shape, sealability, and durability, low-cost and light weight. While sustainability without compromising the ability of future generations to meet their needs had been today’s focus, plastics packaging has been brought under scrutiny as plastics became a serious threat to the environment. Thus came the green packaging gripped by green marketing comprehending towards three phases by Peattie (2001); Mishra & Sharma (2010), where remedies for solving environmental problems were concerned and provided during the first phase, innovation of environmental friendly products and clean technology were motivated during the second phase and sustainable green marketing has been the agenda in the third phase. As per the second phase of green marketing, innovation of environmental friendly products and package came in to existence globally. But in Asia it had been still in the stage where a wider gap persisted in understanding and implementation as far as consumer products are considered. Considering all the above points, it could be understood that green marketing would work based on environmental elements and their issues in order to benefit the corporates due to their environmental protection initiatives rendered by green packaging. Hence, green packaging, where conversion of traditional plastic packaging in to environmental friendly packaging in consumer products would result in solving various environmental issues.

1.11.1 Why Biopolymers or Biodegradable Packaging?

The problem of environmental pollution caused by the haphazard dumping of plastic waste has anticipated a global share. These conventional plastics that are synthetically obtained from petroleum are not readily biodegradable and are considered as biologically destructive waste. New biodegradable polymer blends have been developed to enhance the
Degradation of the final product. In addition, the usage of biopolymers is based on renewable sources and contributes to material cycling that is equivalent to the regular biogeochemical cycles in nature. (Bucci et al. 2005). A wide assortment of these bio-based materials are known to prevent moisture loss, reduce lipid oxidation and increase flavour traits, as well as augmenting the handling properties, microbial stability and colour retention of foods. With consumers demanding new ecological substantial packaging and a desire for more natural products, bio-based films or bio-polymers will endure to play a significant role in the food and FMCG industry by improving the quality of many products. Loss of biodiversity, human health effects, eutrophication and ecotoxicity are also considered (Cutter 2006) for approaching bioplastics. As biodegradable packaging is a latest step in sustainable packaging design (Davis & Song 2006), various research and development projects are on the tactics of introducing the use of biodegradable or eco-friendly packaging materials. The designs of such biodegradable or eco-friendly packaging materials are the contemporary need and thus indebted to replace an existing packaging material, or to complement one which is accessible in the market.

Due to the fact that consumers are becoming more and more environmental conscious and are challenging more and more environmental friendly packaging and develop the desire for more natural and environmental friendly products, bio-based films or bio-polymers will continue to play an important role in the food and processing industry (Cutter 2006). Polymer addition to the polyethylene of flexibles by using a novel technique of adding mono/disaccharides or copolymers based on polylactide, using either chitosan or cycloaliphatic amide segments that can act as a nutrient source for microorganisms to increase biodegradation are gaining importance of great opportunities.
1.11.2 Bioplastics – Need of Earth

The enormous volume of plastic pollution generated by conventional plastics has prompted abundant research initiatives in the meadow of Bio plastics. Introduction of Bio-based HDPE has been one of the most positive discoveries in this field and they are the chiefly used form of bio plastics in the FMCG business currently. To ragdoll the surplus wastage produced by conservative HDPE in FMCG, newer means of accomplishing HDPE from natural sources have been introduced. (Rosentrater et al. 2006) examined the production of bio-based plastic products. Green HDPE has the equivalent features and characteristics as polyethylene made using fossil resources - it adores the identical adaptability in rapports of applications. But the significant variance is Green HDPE uses 70% less fossil fuel and consumes over 170% less greenhouse gas releases per ton when compared to petroleum based plastics. All Green HDPE can be recovered theoretically by recycling. As per packaging news survey 2013, up to 1.5 tonnes of CO2 can be saved by recycling 1 tonne of green plastic bottles. As such, bio-based HDPE is a feasible standby to traditional HDPE for FMCG packaging.

With growing consciousness regarding the environment, eco-cost of a product is becoming progressively appropriate in crafting a package. Prospect companies must shelter a “Green” image to the tastes of buyers to be prosperous. The environmental harm created during production and the costs incurred owing towards it are anticipated to be internalized by the enterprise responsible for it. Governments are furthermore taking pre-emptive procedures to screen and penalize concerns that are polluting in nature by means of taxes, guidelines and introducing tradable emission privileges. Consequent to this, companies should take up a practical approach in partaking low eco-costs in product manufacture. This will deliver the product with a competitive sovereignty in the future.
Eco-Cost is a degree of measure to express the sum of environmental burden while manufacturing a product. The cost which is fundamentally added to the manufacturing cost forfeiting environmental pollution and resource reduction. For example, for every 1000 Kg of CO2 emission, one would spend $135 in CO2 reduction structures. It means the eco cost of producing HDPE that emits CO2 is said to be $0.135 to manufacture 1 Kg of HDPE according to Danley (2012). Bio plastics obtain the lowest in terms of Eco-costs per Kg of material used, as shown in Table 1.1. They are the cleanest form of plastics available yet. FMCG packaging using PET has the maximum load on the environment.

<table>
<thead>
<tr>
<th>Plastic Materials for FMCG Packaging</th>
<th>Eco Costs $/ Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDPE</td>
<td>1.026</td>
</tr>
<tr>
<td>LDPE</td>
<td>1.058</td>
</tr>
<tr>
<td>PET</td>
<td>1.070</td>
</tr>
<tr>
<td>PP</td>
<td>1.028</td>
</tr>
<tr>
<td>PVC</td>
<td>0.651</td>
</tr>
<tr>
<td>Bio-plastics</td>
<td>0.426</td>
</tr>
</tbody>
</table>

Source: Srivasan & Lu 2014

Initially, conventional plastics fragment into smaller and smaller particles when they start to breakdown, often ending up in our water stream and food stream where animals consume the plastic particles. A sustainable alternative to traditional plastics is bioplastics are plastics that are fully or partially biobased, and/or biodegradable or compostable. Manufacturing plastic biodegradables can be accomplished either by addition of catalyst to conventional polyethylene or by making resin from plants to produce bioplastics or to enhance quick degradation time to a limited years instead of hundreds of centuries (brentwoodplastics.com) In other words, they are
plastics that are prepared by blending renewable resources like potatoes, corn, sugar, soybean protein, tapioca, cellulose and algae. They will breakdown down quicker than traditional plastics that are usually made from petroleum, and other fossil resources like natural gas. The most generally used raw material for manufacturing compostable plastics is corn starch, which is transformed into a polymer of similar properties as regular plastic produces. Bioplastics supports the earth by causing reduced carbon footprints, reduced use of fossil resources, and improved end-of-life options. Bioplastic will be a non-toxic substitute for traditional plastics. Many bioplastics are 100% compostable and will biodegrade in 180 days or less once disposed in public composting facility, whereas traditional plastics can take hundreds of years to break down. Bioplastics in India are still at a very embryonic stage and merely two participants are functioning in this sector. Compared to the European market, where Bioplastics remain commercially available, Indian Bioplastics industry needs a lengthy tactic way to drive in terms of knowledge, skills and expertise, manufacturing, raw materials, and technology. Even though the Indian Bioplastics marketplace is bounded by challenges such as little awareness which are distinctive and typical to evolving markets, the insufficient and scarce market response indicates enormous prospects and potential for companies willing to use this for packaging their products. Participants in the industry can overcome the cognizance barrier by generating superior environmental awareness and encouraging the long-term environmental benefits of using Bioplastics over petroleum-based plastics.

Bio-plastics would find added support in the retail market on becoming cheap as conventional plastics. The bioplastic market propagated at 30 percent in 2008 and will nurture to grow at a compound yearly growth rate of 44.8 percent by 2015. Bioplastics have two thirds harmless greenhouse gas emissions during the production process. The prevailing global standards necessitate biodegradation of 60% within 180 days along with some other criteria aimed at the resins or product to be termed compostable.
Figure 1.2 What will happen to the bioplastics in the soil?

The requirements of end-user segments, such as the food and FMCG industry, who are projecting themselves as eco-friendly and for packaging industries meeting the requirements of export-oriented markets is currently the key drivers for bioplastics demand in India.

### Table 1.2 Biodegradation* of various packaging materials Bioplastics

<table>
<thead>
<tr>
<th>Bioplastics</th>
<th>Duration (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic packaging films</td>
<td>Remains undegraded for ever</td>
</tr>
<tr>
<td>Starch based bioplastics**</td>
<td>~ 40–60</td>
</tr>
<tr>
<td>Polymer based films**</td>
<td>~ 90–150</td>
</tr>
<tr>
<td>Chitosan based films**</td>
<td>~ 90–150</td>
</tr>
<tr>
<td>Cellulose based films***</td>
<td>&gt; 365</td>
</tr>
<tr>
<td>PLA based films**</td>
<td>150–240 (@ 60°C)</td>
</tr>
</tbody>
</table>

Note: *Depends on type, bacterial count, and moisture content; **biodegradation is also possible by sewage sludge treatment; ***depends on crystallinity / lignin content.

Source: Srinivasa & Tharanathan 2007
Identification of important environmental issues in the food-packaging systems have found the solution of bioplastics to replace petroleum based plastics. Companies need to build markets for bioplastics and to assure customers that bioplastics are indeed sustainably made. Companies to develop corporate models and prototypes that bring bioplastics to market efficiently once they develop, progress, and motivate their “vibrant competencies” around sustainability.

1.12 EFFICACY OF BIOPLASTICS IN THE GREEN ECONOMY

There is growing evidence demonstrating that consumers are selecting products or evading others centered on their influence on the natural environment (Mostafa 2007). The study delivers a wide-ranging market outline, end-use analysis, existing market movements, significant market information, progressing drivers, latest manufacturing activities, and outlines of the businesses in the international and niche market. Descriptive statistical techniques shall be used in future to analyse the data collected from consumers, wholesalers, retailers, and manufacturers.

Quality procedures such as Six Sigma, optimisation of supply chain competence, waste minimization and ecommerce inventiveness, can contribute a lot to improved performance. Thus can “added value” merchandises and services and inventive attitudes gathering customers’ needs. In a world where commoditization is an element, it’s manifest that establishments which develop exclusive products and services that are “genuinely out of the box” solutions to end users’ problems will drive momentous economical superiority aimed at a green economy.
1.13 EXPECTATION OF CONSUMERS FROM GREEN MARKETING AND GREEN PACKAGING FOR A SAFE ENVIRONMENT

Incorporation of environmental protection plans and strategies towards their production and marketing management is started by competitive product makers thereby leading to innovative green packaging. This is due to the reason of improved public awareness on environmental features and mounting environmental obligation of consumers which is the foundation for developing environment friendly packaging (Paco et al. 2009) for fast moving consumer products.

Transformation towards actual purchase behaviour based on the intention to buy products having eco-friendly packaging as per the theory of planned behaviour has been acknowledged from the extensive literature. It is understood that on what extent flexible packaging is influenced by the prerequisites for that green packaging has on consumer’s purchasing decisions based on the green marketing concepts.

Hence, green packaging approach (Lampe & Gazda 1995) which affords a chance aimed at protecting the environment gains benefits by strong consumer attitude towards brand image, product, packaging and its purchase. Green packaging will satisfy the burdens and demands of very several ecological cognizant shoppers who are gratifying highly demanding, generous and not easy-to-please folks further boosting corporate social responsibility by enterprises.
Figure 1.3 Plastic packaging waste generation in the FMCG sector

1.14 CONSUMER’S PERCEPTION TOWARDS GREEN MARKETING AND ENVIRONMENTAL CONCEPTS TOWARDS GOING GREEN

One of the objectives of this research is to explore whether environmental aspects like environmental problems, environmental knowledge, environmental concern and environmental information are mediated by green attitude in knowing consumers preference on green packaging. Green marketing which includes packaging changes instigates consumer research in understanding the above mentioned environmental aspects and traits by consumers as per value belief norm theory. Moreover,
the packaging industry faces strong environmental demands from customers (Williams et al. 2008). Moreover, consumers behaved with great attitudes on environmental protection with a willingness to purchase green products that generate a minimum or no harm on the environment (Wasik 1992). This is evidenced by the research done on declaring that consumer purchases are now more concerned on the environment (Chen 2010). Also, there are very few studies about consumer attitudes on green packaging of fast moving consumer products. Henceforth, this study contributes to green packaging by perceiving green marketing strategies, concepts and aspects.

1.15 VALUE CREATION IN GREEN PACKAGING

Value of any product denotes the value of any activity to the consumer and is conspicuous particularly in the shopping environment (Shukla & Babin 2013). Value creation gets reflected in the marketing mix of any company (Koller et al. 2011) and hence, packaging being deliberated as one of the marketing mix elements will cause value for the consumer product focussing particularly on the green packaging. Furthermore, a consumer product gets an additional value and obtains consumers attention than others due to the reason it reduces environmental hazard and provides environmental protection due to green packaging. Hence this study helps in understanding how value creation generates increased purchase behaviour among consumers and how packaging of products renders environment protection.

1.16 GREEN ATTITUDE AND BUYER OPINION ON GREEN PACKAGING

Environmental attitude is “the collection of beliefs, affect, and behavioural intentions a person holds regarding environmentally related activities or issues” according to Schultz et al. (2004). Green attitude or environmental attitude is used as a distinct theoretical meaningful aspect to
measure the consumer opinion towards green packaging of FMCG. It represents all the environmental elements in explaining the requirement of green packaging to replace petrochemical based synthetic flexible plastic packaging. Koller et al. (2011), finds that deriving general environmental perceptions along with the integration of ecological attitudes is must, as attitude is an important predictor of both consumption and purchase behaviour by ecologically responsible consumers (Balderjahn 1988). This exclusive environmental realization of consumers added through robust inclination in paying extra for green products owing to the inherent stimulus, inclination and concern to go green attitude is observed in the study done by Brecard et al. (2009). Different attitudes on ecological problems created by various environmental issues and concurrent environmental friendly behaviours had been considered in different studies on different aspects separately (Mostafa 2009).

Thus, examining green attitudes and behaviours, green marketing mix, green consumer needs, green positioning are specific measures of appropriate green marketing activity (Jain & Kaur 2004; Chen 2010; Chen 2013). This study seeks to clarify requirement of green package opinion inclined among the consumers for FMCG considering four environmental elements based on green attitude. As attitude has been considered as a predictor in green purchase decisions (Laroche et al. 2001; Diamantopoulos et al. 2003; Kim & Choi, 2005; Tantawi & Shaughnessy 2009), green attitude has been viewed as a forecaster of green package aspects and opinions among the consumers based on the four environmental elements viz. environmental problems, environmental knowledge, environmental concern and environmental information.
1.17 STANDARDS AND REGULATIONS IN PLASTIC AND GREEN PACKAGING

Even though plastic packaging has become the hot topic and noticeable due to the pollution caused, it becomes an important source for protecting, handling storing and transporting a product safely especially in consumer products. Social and economic changes are the causes for high use of packaging materials. Henceforth many countries have worked on forming rules, regulations, specifications and standards regarding plastic packaging, use and disposal. India is still in infancy stage in the regulations. Global scenario related to standards and regulations with reference to packaging are discussed below:

In order to reduce the amount of package waste which causes significant environmental concerns, EU regulations are made stronger now and then. Packaging and the packaging waste directive of the EU Directives (94/62/EEC, 2004/12/EC, 2005/12/EC) cover all packaging engaged in the market in the EU community. It is one of the limited environmentally associated guidelines comprising directly reckonable, measureable goals (http://europa.eu/legislation summaries/environment/waste management/l21207 en.htm). Each EU member state has diverse precise periods to meet assured standards conferring to the directives. Since introducing the UK packaging waste regulations, a huge percentage of the packaging is recycled within the industry.

To govern the package waste, the first “Solid Waste Control Law” (1991) was in force in Turkey by the Ministry of Environment and Forests in 1991. Consequently “Regulation on packaging and packaging waste control” order began into force in 2004 and got revised again in 2007 by Ministry of
Environment and Forests, in 2007. This regulation required nationwide programs to lessen the piled up packaging waste, and encouraged in developing packaging recycle and reuse systems. The regulation gives certain goals for the rescuing, recovering and reconditioning of packaging wastes.

A first multi-material (four kinds of plastic, glass, three kinds of paper, steel and aluminium) gathering program having 30 percent recovery rate management of packaging waste in a differential waste collection scheme in Italy has been done by Marchetti (2003).

The present environmental legislation and waste management policies and implication in Mexico can become well functional at other Latin-American and developing countries according to the study done by Han et al. (2010).

Hage et al. (2007) discussed in their study regarding “Swedish producer responsibility scheme” and “tax/subsidy scheme” in fulfilling the cost effectiveness criteria for cardboard packaging producer’s environmental responsibility The same author in 2009 published their investigations on determinants of the collection of household packaging waste in Sweden.

The study lead by Grodzinska Jurczak et al. (2004) specifies and describes the new packaging waste management and first year assessment in Poland. They also recommended following EU legal system for sustainable package waste management system and structures and harmonise the same.

Han et al. (2010) admitted that the major change in waste management would be to cradle entrepreneurs liable for environmental risks resulting from the introduction of packaging till the marketplace and for its recycling.
Though the international environmental regulations have not mirrored the indigenous environmental problems of developing countries formerly, the global eco-label program practices the concept and perceptions of twin recognition and correspondence to guarantee that manufacturers from developing countries obtain an internationally acknowledged eco-label imprints based on local environmental standards (Jahnke 2000). Environmental initiatives in the U.S., Canada, and Australia are depending on the national change agencies like ISO 14000 which focuses on recycling materials, preventing pollution, reducing wastages in the manufacturing plants (Schoenherr 2011). An active, dynamic and intelligent packaging poses general requirements under Regulation 1935/2004/EC and new Regulation 450/2009/EC regarding specific safety and marketing issues related to active and intelligent packaging according to Restuccia et al. (2010)

The organization of biodegradable plastics by composting is categorized under substantial recovery, and a permitted recovery choice specified in the Producer Responsibility (Packaging Waste) Regulations as revised in 1997.

Biodegradable polymer (BDP) packaging was introduced into the local retail trade in Kassel, Germany, since March 2001, (Klauss 2001). The use of the scheme was to host biodegradable packaging and succeed its source separation by householders thus they could be collected with the organic waste stream to create compost. The scheme needed copious planning previous to the promotion, to confirm that the public had received adequate facts regarding biodegradable polymers, their labelling, classification, separation and collection. Considering biodegradable packaging materials as appropriate for single use throwaway packaging applications, Davis & Song (2006) studied the regulations and standards applied to these materials. In their study, along with packaging waste directive, they considered Packaging
(Essential Requirements) Regulations (2003) has got strengthened in order to decrease volumes of packaging waste in the Europe. The UK packaging waste regulations has made a large quantity of the packaging waste to get recycled with a rate of 42 percent by the obligated industries.

The current standard BS EN 13432 (1999) covers the requirements for packaging recoverable through composting and biodegradation and test scheme and evaluation criteria for the final acceptance of packaging. According to EN 13432, a plastic is considered to be disintegrable under composting conditions if, following composting, no more than 10% of its initial dry weight has a particle size equal or more than 2mm. Some hydrocarbon-based polymers marketed in the UK as compostable have been unsuccessful in reaching this standard. At the European Committee for Standardisation (CEN TC 261/SC4/WG2) meeting in February 2003, the view was presented that BS EN 13432 is not adequate for hydrocarbon-based compostable polymers and a new BS for the compostability of oxo-degradable plastics has been proposed (Davis & Song 2006).

4.3 kg per person per annum is the per capita consumption of packaging in India when compared with 42 kg and 20 kg of Germany and Taiwan according Dr D. Purandeswari, the then Indian Minister of State for Commerce and Industry, at Indiapack 2013. In her report, it was mentioned that the challenges faced by the industry is lack of regulatory clarity in packaging, deficient consumer awareness of sustainable packaging, and ambiguity about green packaging materials.

1.18 FUTURE OUTLOOK

In the past 50 years, plastics have captured a strong place in packaging of FMCG and other industries. The low cost good property material plastic especially in flexible form has got priority due to the attraction and longevity it offered. But now it has become the problem of the
environment and alternatives are being researched to replace synthetic plastics with bioplastics called green packaging. The consumer purchase decisions should be studied in detail in the perspective quotient of green packaging designed by environmental economists. Green marketing, signifying a broader trend in the development of environmental policies that focus on information disclosure would be adopted in government policies on green packaging. Institutional theory, stakeholder theory and the corporate social performance perspective viewing green marketing as a subset of corporate policies should be designed to gain numerous external legitimacies in the green packaging perspective. Stranded on considerate "green marketing", and in vision of snowballing globalization of the world economy, every company or the manufacturer who needs to compete in the global market must pay great attention to the "green demands" of consumers and should challenge in carrying out "green marketing" (Zhang & Dhaliwal 2009) and green packaging. The driving force behind green packaging in the market due to "green consumption demand" to spontaneously protect the environment and efficiently use the resources by enterprises will be the future outlook. Conceptualising the variables of green economy approach in the consumer perspective on green packaging involves government regulations and manufacturer to retailer and consumer willingness obviously as a future trend.

1.19 SIGNIFICANCE OF THE STUDY

Packaging being the connecting representative between the brand and the consumer has been studied earlier focusing only on few aspects. This study applies almost all the criteria involved in packaging and consumer purchase behaviours. This study makes a substantial contribution to the purchase based on packaging and flexible packaging as there has been no exclusive study done in India in depth.
As has been distinctively and exclusively demonstrated in the literature, environmental consciousness, a philosophy of activists, is no more a philosophy of activists, but has become the deed of competitive scenario influencing buying behaviour of consumers. Henceforth, this study contributes to the best understanding of the environmental aspects by the consumers in the Indian scenario by relating it with green attitude and green package aspects.

The present study would be one kind in associating environmental attitude and green packaging requirement by consumers behaving towards purchase of products packed using green packaging materials. This study identifies and recommends the impact of green packaging as a solution for the stated problems and recommends FMCG companies to use green packaging to safeguard the environment and create more economic value referring to the products.

The present study pronounces a classic system for application of biodegradable or bioplastics in FMCG and emphasizes forming procedures, guidelines, regulations and legislative compliances to govern green packaging, thereby generating benefits among competitor products by promising a harmless atmosphere for forthcoming generations.

1.20 STATEMENT OF THE PROBLEM

The huge increase of usage of plastics, especially flexible synthetic plastics in FMCG packaging, is due to the convenience rendered by them, as they hold the product without much volume and weight in packaging material. Plastic packaging of FMCG has stemmed in causing wide throwing and dispersing of plastics ubiquitously in the environment. Much understanding about the developments and application of this FMCG flexible packaging, proposes reducing volumes of wastage, but got outstretching into another
huge problem of non-biodegradable waste. This wastage problem has ruined to create plastic household waste, resulting in one third of municipal solid waste ending up as the biggest environmental problem. Upsurge in these flexible plastics is dominating in exhaustion of natural resources due to their high landfills and litter adding to the cause of environmental degradation problems like water, air and land pollution. Addition of biodegradable materials to the flexible plastic packaging to convert it in to bioplastics or green packaging is the need of time. As environment gets ruined by plastics everywhere, green marketing needs to be focused for integrating green packaging or bioplastics in FMCG. The research problem prompts to understand the consumer’s perceptions on ‘Going Green’ by understanding the FMCG packaging, flexible packaging and its impression and threats on the environment and value creation owing to green packaging.

1.21  RESEARCH QUESTIONS

Research questions that are formulated are as follows:

1. What are the functions of packaging and flexible packaging in FMCG and are they responsible for the environmental pollution?

2. How consumer buying behaviour patterns are perceived based on package and its components?

3. What is the nature of flexible packaging materials which are used in FMCG packaging and how do they contribute to the environmental pollution?

4. How environmental aspects contribute to comprehend consumer’s awareness and knowledge on flexible and green packaging?
5. Is there a relationship between the environmental concepts and green packaging using green attitude as mediator.

6. Do value is created due to the knowledge of consumers on flexible package characteristics and its impact on environment and opinion about green packaging by consumers?

7. Are there any regulatory frameworks and standards designed for flexible packaging, green packaging in global and Indian scenario?

1.22 RESEARCH OBJECTIVES

1. To define and study about the functions of packaging in FMCG industry

2. To analyze the impact and integration of packaging on consumer buying behaviour patterns

3. To understand the characteristics and nature of flexible packaging materials used in FMCG

4. To understand the consumers perception towards green attitude and environmental concepts and issues towards going green

5. To identify the green packaging and green purchase behaviour of FMCG due to value created by green packaging.

6. To study the global standards and regulatory frameworks along with Indian practices with reference to the application of green packaging.
1.23 **SCOPE OF THE STUDY**

Considering the remarkable demand for FMCG and flexible packaging in the market, along with the considerable amount of pollution which is unavoidable, this research focuses on discussing the feasibilities of technological developments in biodegradable or green packaging. They are very much known for reduced disintegration time of used packets in the landfills, thus enticing a safer environment. Thus, this study focuses on

i. FMCG purchase behaviours influenced by packaging

ii. Flexible packaging in FMCG, its characteristics and nature along with the impact created on environment

iii. Consumer’s insights and perceptions on environmental aspects and concepts

iv. Green attitude and green package opinions that arose due to their knowledge and perception on environment

v. Buyer’s opinion on green package and value created due to green package

This paper considers the maximum literature and other secondary data to recognize the gap which involves and implicates further thoughts, concern, contemplation consideration, and accomplishment of action for conceding a nontoxic environment to forthcoming generations.

1.24 **OUTLINE OF THE STUDY**

The contents of the thesis are ordered in five chapters.
The Chapter 1, introduction, provides a clear picture regarding the requirement of the study along with significance of the study, problem statement, research questions and objectives, the scope and outline.

The Chapter 2 is the review of literature, converging several research studies required to conduct this research work. Role of packaging and its functional aspects in FMCG, impact and integration of packaging in consumer buying behaviour, flexible packaging, consumer perception on environmental concepts, green marketing and green packaging, value creation through green packaging, global standards and regulatory frameworks along with Indian practices with reference to the application of green packaging are all discussed in detail in this chapter. Research gap is also specified in this chapter.

The Chapter 3 research methodology deliberates the conceptual models of the study along with the essential hypothesis needed to determine whether evidence lies in the sample data with certain conditions is true or not. This chapter also comprises questionnaire design, sampling design method, data collection procedure, and data analysis framework.

The Chapter 4 data analysis depicts the results obtained out of the data collected. Demographic characteristics and other variables are analysed using respective tests such as Chi square, ANOVA, regression, factor analysis and SEM.

The Chapter 5 exemplifies results are summed up with theoretical and managerial implications. Limitations of the present research work and directions of future research are also elucidated in this chapter.