CHAPTER: I

INTRODUCTION

1.1. General Background

Nepal is one of the smallest and least developed countries of the world. It is the landlocked country situated between large countries China and India. Nepal is situated between 26°22' to 30°27' northern latitude and 80°4' to 88°12' eastern longitude. The country has occupied 147181 square kilometer of land, which constitute 0.03 percent area of the world and 0.3 percent area of Asian continent. Mid census 2062 has reported the total population to be 23151423. Majority of population here is dependent on agriculture, but the country is gradually shifting its economy from agricultural to industrial sector for sustaining its economic life. Due to this, industrial activities are gradually increasing in the country. As a result, numbers of different types of industries have significantly increased in the recent years. With the increase of industries, competition among them has also increased significantly. This has resulted marketing to become more competitive and important since it is the only tool to sell the product they produce and remain competitive in the market.

To general, marketing is selling through advertising which means selling and advertising are the strongest parts of marketing for them. Marketing helps an organization to find out what their customers want. It also helps to decide what products are to be made. The decision is carried on after a long research in the market.

Production is the prime activity of every industry and successful marketing of the product is the ultimate goal. Today's marketing environment is characterized by globalization, technological changes and strong competition. Successful marketers are those who deliver what customers are willing to purchase as well as according to their ability to purchase. For this reason, marketers today conduct many researches to study consumer decisions. Once it is understood, marketers become able to predict and shape their marketing strategies accordingly. Without doubt, marketers who understand markets and

consumer behavior have great competitive advantage over other competitors. Therefore, it is obvious that a producing organization or manufacturer must determine the needs, wants of their customer first, and then brings the product in the market accordingly.

According to Prof. Philip Kotler, "Marketing is a social and managerial process by which individuals and groups obtain what they need and what through creating offering and exchanging products of value with others."

Another scholar Prof. William J. Stanton defines marketing as "a total system of business activities designed to plan, price, promote and distribute want-satisfying products to target markets to achieve organizational objectives."

According to E. Jerome McCarthy, "Marketing is the performance of activities that seek to accomplish an organization's objectives by anticipating customer or client's needs and directing a flow of need-satisfying goods and services from producer to customer or client."

Similarly, the American Marketing Association defines marketing as "the process of planning and executing this conception, pricing, promotion and distribution of ideas, goods and services to create exchange that satisfy individuals and organizational goals."

Hence, above definitions of marketing suggest that it consists of some activities consisting of study of consumer needs, products, price, and place, promotion to facilitate the exchange that satisfies individual as well as organizational objectives within the social and marketing environment prevailing today. The consumer or customer gets the product he/she wants and the manufacturer or marketer gets the profit with satisfaction. This highlights the importance of product as the whole process of marketing. Product is always an important element of marketing mix. It is more than goods and services as people think it to be.

Nowadays, most of the consumers buy products with the help of brand rather than by inspecting the products. It means, successful marketing of product means successful marketing of the brand of that product; moreover, every manufacturer. Prof. Philip Kotler defines "A product is anything that can be offered to market to satisfy a want or need". After producing a product, identification of the product should be given. For this, brand is used to identify the product. Branding constitutes an important part of product. So, building brand requires a great deal of time, money, promotion, packaging, etc. Prof. Kotler further says, "A brand is a name or mark intended to identify the product of one seller or group of sellers and differentiate the product from competing produces."

Thus, brand is not only a name given to a product but also a technique by which the quality or the product of various producers are differentiated. So every manufacturer or marketer is trying its best to make the consumers develop a positive attitude toward the brand of their product and buy that brand repeatedly. To put more precisely, every manufacturer wants and tries their best to make the consumers loyal to the brand of their product. However, quite naturally, all the consumers do not deal or behave with the brands exactly in the way marketers want. In spite of availability of different brands, some consumers keep on sticking up to a particular brand whereas some are indifferent in selection of a brand. Similarly, also others are constantly switching from one brand to other. Every brand has a certain image in the market. Every brand is known for its own feature and quality. So, the consumers; according to their faith, trust on quality and feature, according to the experience of the same or due to another psychological element; prefer one brand to others. If they think a brand is good in terms of quality, price, social status or any other; they develop a positive attitude toward that brand and repeatedly purchase the brand. When this happens, i.e., when consumers develop a positive attitude towards the brand and an intention to repurchase, the manufacturer has gained a great asset known as brand loyalty.

In simple term, brand loyalty means a consumer's strong faith or belief on a particular brand and, as a result, an intention to repurchase the same brand and buys the same brand repeatedly. The consumer here is said to be brand loyal.

A consumer's buyer behavior is influenced by four major factors; cultural, social, personal and psychological factors. These factors cause consumers to develop product and brand preferences. Although many of these factors cannot be directly controlled by marketers, understanding of their impact is essential, as marketing mix strategies can be developed to appeal to the preferences of the target market.

While purchasing any product, a consumer goes through a decision process. This process consists of up to five stages; problem recognition, information search, evaluation of alternatives, purchase decision and post purchase behavior. The length of this decision process will vary, ranging from shorter routine response behavior to limited problem solving and a more comprehensive extensive problem solving. A consumer may not act isolation in the purchase but may be influenced by any of several people in various roles. The number of people involved in the buying decision increases with the level of involvement and complexity of the buying decision behavior.

Not all consumers will accept new product at the same rate. Marketers will need to aim the initial marketing mix at potential early adopters, especially those identified as opinion leaders in order to increase consumer awareness of the product and sales. They must also understand the adoption process to effectively market to new customers.

Brand loyalty is the consumer's conscious or unconscious decision, expressed through intention or behavior, to repurchase a brand continually. It occurs because the consumer perceives that the brand offers the right product features, image, or level of quality at the right price. Consumer behavior is habitual because habits are safe and familiar. In order to create brand loyalty, marketers must break consumer habits, help them acquire new

habits and reinforce these habits by reminding consumers of the value of their purchase and encourage them to continue purchasing those products in the future.

Aggressive competition is the main characteristic of modern marketing. Competition has been very tough in the Nepalese consumer market together with increase in the number of units of industries producing different types of consumer goods. On the one hand, Nepal's own industries are producing different types of products; and on the other hand, products of different types are being imported from the other countries. Today, so many brands of even a specific product category are being sold in the Nepalese market. Consequently, Nepalese consumers have many alternatives while buying most of the products. They are no more compelled to buy any particular brand; rather, they are free to choose any brand they think the best from different brands available in the market. This, in turn, has increased the promotional activities in the country. Every producer or marketer in the country is trying their best to prove their product to be the best. This can be observed from the promotional efforts like TV. Commercials, radio ads, newspaper ads, posters, hording boards, personal selling and other promotional tools etc. calling up to buy their product. After all, every producer or marketer wants to develop a market share highly loyal to his product or brand. These circumstances prevalent in Nepalese market signify the need of understanding brand loyalty behavior of the consumer.

Only little research has been conducted so far in Nepal to find out how consumers behave with different brands of product available in the market. So this study is therefore conducted mainly to find out whether Nepalese consumers are brand loyal or not.

1.2 Focus of the Study

In the modern business world, brand has become so strong that hardly anything goes unbranded. Even the commodity worth Re.1 has a package with distinctive symbols of manufacturers. Success of an industry is the main function of successful marketing of its products. The term "successful marketing" to hear is very easy; but in reality, it is very

complicated. Successful marketing require proper branding, labeling, and packaging. Therefore producing a product is not sufficient for successful marketing.

In fact, if we observe today's consumers behavior closely, we can find that most of products are bought by brand rather than inspection. This is the reason that every marketer and manufactures are trying their best to develop brand loyalty towards their particular brand of products. Though it is often seen that all the consumers do not deal or follow brand exactly as the way intended by the marketers and producers, research evidence suggests that a great deal of brand loyalty develops quite early in the context of people's family life.

It is quite reasonable that brand and loyalty be defined separately. So as to understand and relate these terms is the context of our study. Brand has certain image in the market. Brand may be taken as an easy way for consumers to identify a product or service. They, in fact, insure purchasers that they (the buyer) are getting comparable quality when they reorder for the same next time. Therefore, it is obvious that consumers are made to believe, by means of branding, that they should prefer a particular brand to others available in the market. In the process, many elements may be playing roles in the mind of the consumers; i.e., faith on some brand regarding its quality or impression created in him due to the marketer's promotional activities or according to the experience of these same goods or other physiological and psychological elements etc.

Now coming to loyalty, it may be said that loyalty refers to the specific preference over the products available in the market. It is also behavioral response of the consumer expressed over time by some decision-making unit with special reference to one or more alternative brands.

Thus brand loyalty leads to strong brand preference and repeat purchase behavior. Such brand preference gives extra benefits to companies even to the extent of high price charging because consumers do not mind to pay even more for their preferred brand. Surprisingly, it is found in reality that majority of consumers tend to buy product on basis

of what they perceive rather than by inspecting and examining the quality of product itself. Hence, it is fact that brand loyalty is created in the mind if the consumer has some strong positive attitudes towards a brand making him buy it repeatedly. When this action of buying same brand repeatedly happens, brand loyalty occurs among the consumers. So, we can say brand encourages repetitive purchase of products. This promotes brand loyalty among customers. Organizations can achieve stable market share. They get protrusion from competition and greater control in planning the marketing mix. They decrease importance of price.

This study is therefore conducted mainly to measure the loyal consumers on branding. Therefore, this study focuses mainly on the brand and loyalty of consumers in Birgunj. For this purpose, five different types of low involvement products have been selected. The products selected for the study are as follows:

- > Soap
- ➤ Mineral water
- > Toothpaste
- > Shampoo
- ➤ Hair oil

Each of the above low involvement consumer products are defined (for the study's purpose) as below:

- ➤ Soap: Soap is a very common product packed in plastic or paper packages, which is used by almost anybody. This has become one of the necessities for everyday living. This is used for the purpose of bathing and personal hygiene.
- ➤ Mineral water: Mineral water is packaged drinking water sold in plastic bottles. Few years ago, common people used to perceive this as the product used or consumed by rich people and tourists only; but now, this concept has changed.

Common people are using mineral water more frequently. This is the reason for the increase in demand of this product in Nepal.

- ➤ **Toothpaste**: Toothpaste is the product used for cleaning teeth. This is also one of the necessities for everyday living.
- **Shampoo**: Shampoo is the soapy liquid, cream, etc. used for washing hair.
- ➤ **Hair oil**: Hair oil is the product applied on hair for making it healthier as well as stylish.

1.3 Statement of Problem

Population in Nepal is increasing. This has resulted in increase of demand of different products. Due to this reason, many industries are being established in Nepal. Few years back, there were very few industries and they were able to fulfill the demand of the consumers; but now, developments in transportation, communication, political awareness, etc. have made the world narrower. Now, people can order and buy any kinds of goods without leaving comfort of their room. Television advertisement and Internet shopping have revolutionized the marketing and sales within the short span of time.

Today, one can use any product that is produced in another corner of the world. Now, consumers are not compelled to buy any particular product; rather, they are quite free to choose anything they think best.

Therefore, the basic problem of this study is to measure the loyal consumers in Birgunj. Mainly, the study will examine the following questions:

- ➤ In spite of availability of different brands in the market, do the consumers response and stick up to any particular brand or do they repeatedly switch to different brands.
- ➤ The real number of consumers, their belief and attitudes toward the brand are not known exactly.
- There are so many competitive brands available in market.

1.4 Objectives of the Study

Since our main purpose is to find out whether loyalty on branding exits in Nepalese market or not, this study includes following specific objectives:

- 1. To analyze brand consciousness of consumers of Kathmandu metropolitan city ward no 14 Kalanki .
- 2. To identify the relationship of brand loyalty with demographic variables like age, sex and income.
- 3. To find out the number of brand loyal consumers or percentage of brand loyal consumer.
- 4. To recommend important measures that would help to develop marketing strategies and for conducting further researches on loyalty on branding in future.

1.5 Significance of Study

In the era of cutthroat competition, successful marketing of products demand on understanding of consumer's taste, preferences and loyalty. The significance and importance of this study can be dealt in the following points.

- ➤ The manufacturers and marketers of Kathmandu will be highly benefited by this study. They can use the findings of the study as the guideline for making marketing strategies for their products so that they can achieve success.
- ➤ This study will help to know the consumer behavior on their products. Hence, manufacturers and marketers can decide the advertisement policy, consumers' response to the price and consumers' perception about their product.
- > This study can help in the segmentation of their market into loyal consumer market and non-loyal consumer market.
- ➤ This study can give manufacturers and marketers protection from competition.
- This study can be helpful in planning marketing mix.
- ➤ Similarly, this study will be valuable reference to the scholars and researchers who are interested in conducting further researches about "brand loyalty."

1.6 Limitations of the Study

This study is simply a partial fulfillment of MBS degree and has to be finished within a short span of time. Therefore, it is natural to have several limitations, which can weaken the objectives of this study. Some of the limitations are as follows:

- 1. Only five low involvement consumer products are included in this study i.e., soap, mineral water, toothpaste, shampoo, and hair oil. Conclusions derived may not be necessarily applicable to other products.
- 2. Sample size is very small in comparison to the population of the study. Only 200 respondents are selected for participation.
- 3. This study is totally based on the views and responses received from consumers of Kathmandu metropolitan city Ward no. 14 Kalanki area only. The findings of the study may not be applicable for other products and other parts of the country.
- 4. In this research, data will be primary in nature.

1.7 Theoretical Framework

1.7.1 Brand Loyalty: Perceptual Background

Loyalty on the branding has been studied from so many angles that the concept has been defined based on the measurement methods used. There are four measurements of brand loyalty.

- 1. Undivided loyalty
- 2. Divided loyalty
- 3. Unstable loyalty, and
- 4. No loyalty

These measurements can be demonstrated as:

1. Households that purchased the Brand A in the sequence of AAAA suggest undivided loyalty.

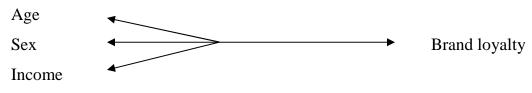
- 2. Households that purchased the Brand A and Brand B in the sequence of ABAB suggests divided loyalty.
- 3. Households that purchased Brand A and Brand B in the sequence of AABB suggests unstable loyalty.
- 4. Households that purchased different Brands in the sequence of ABCD suggest the situation of no loyalty.

1.7.2 Variables are taken into Considerations.

The present study will include the following variables:

Independent variables

Dependent variables



1. Age

The Age of the consumers determines the type of product demanded and the choice of outlet. Normally, young consumers are fashion conscious while choosing a product. Therefore, they frequently switch from one brand to another. While, middle-aged consumers are status conscious hence they are more brand loyal than younger consumers. Hence, this factor also greatly affects in brand loyalty. So this factor is considered.

2. Sex

Male and female differ very much in their buying behavior. Female are more shopping and bargaining-prone and like to visit several shops to compare price, quality and service. Whereas male show more brand and store loyalty.

3 Incomes

Income is that factor which directly effects consumer's buying process. People with higher income prefer branded and high-quality product. Where as people with lower income are more prices conscious. Therefore, they prefer the products that are cheap and durable.

1.8 Research Hypothesis

Testing hypothesis is one of the important applications of statistical inference. For testing of hypothesis, an assumption is made about the population parameter. To test whether the assumption or hypothesis is right or not, a sample is selected from the population, sample statistic is obtained, observe the difference between the sample mean and the population hypothesized value, and, test whether the difference is significant or insignificant. Smaller the difference, the sample mean is close to the hypothesized value, and larger the difference the hypothesized value has low chance to be correct. For this study purposes following hypotheses are made:

Null Hypothesis = H_0

H₀1: There is no significant difference in brand loyalty between male and female.

 H_02 : The Age of the individual does not have significant influence on the brand loyalty.

 H_03 : There is no effect of income on the brand loyalty.

1.9 Organization of the Study

The study has been comprised into five chapters including introduction to conclusion.

The first chapter deals with the subject matter consisting general background, focus of the study, statement of the problem, objectives of the study, Significance of the Study and the Limitations of the Study, Theoretical Framework, Brand Loyalty, Variable taken in to consideration and plan of the study.

The Second chapter concerns with the review of the Literature that are done from the various sources such as Book, Newspaper, general websites, thesis etc.

The Third Chapter describes the research methodology adopted the carrying out the present research which deals with method and techniques that are used in the study this study area based both on primary and secondary data. This chapter attempts to explain the method of data analysis and utilization of statistical tools. It includes the interpret parts research design, population and sample, data analysis tools.

The Fourth Chapter is concerned with the analytical framework data colleted from questionnaires is tabulated and analyzed according to objective total around questionnaires have been filled with people of different concerned groups. The main aim to do this is to know the views of different level of people about brand loyalty and its impact on consumer behavior.

The fifth and the final chapter is concerned width suggestive framework that consists with the overall findings, conclusion and recommendations of the study. The bibliography and appendix are incorporated at the end of the study.

CHAPTER: II

REVIEW OF LITERATURE

2.1 Conceptual Review

Products are made in the factory, but brands are created in the mind. In <u>marketing</u>, a brand is the <u>symbolic</u> embodiment of all the information connected with a <u>product</u> or <u>service</u>. A brand typically includes a name, <u>logo</u>, and other visual elements such as <u>images</u> or <u>symbols</u>. It also encompasses the <u>set</u> of <u>expectations</u> associated with a product or service which typically arise in the minds of people. Such people include employees of the brand owner, people involved with distribution, sale or supply of the product or service, and ultimately <u>consumers</u>. In other contexts the term "brand" may be used where the legal term <u>trademark</u> is more appropriate.

Some marketers distinguish the psychological aspect of a brand from the experiential aspect. The experiential aspect consists of the sum of all points of contact with the brand and is known as the brand experience. The psychological aspect, sometimes referred to as the brand image, is a symbolic construct created within the minds of people and consists of all the information and expectations associated with a product or service.

Marketers seek to develop or the expectations comprising the brand experience through branding, so that a brand carries the "promise" that a product or service has a certain quality or characteristic which make it special or unique. A brand image may be developed by attributing a "personality" to or associating an "image" with a product or service, whereby the personality or image is "branded" into the consciousness of consumers. A brand is therefore one of the most valuable elements in an <u>advertising</u> theme, as it demonstrates what the brand owner is able to offer in the <u>marketplace</u>. The art of creating and maintaining a brand is called <u>brand management</u>.

A brand which is widely known in the marketplace acquires brand recognition. Where brand recognition builds up to a point where a brand enjoys a mass of positive sentiment in the marketplace, it is said to have achieved brand franchise.

Brand Equity

Brand equity measures the total value of the brand to the brand owner, and reflects the extent of brand franchise. The term brand name is often used interchangeably with "brand", although it is more correctly used to specifically denote written or spoken linguistic elements of a brand. In this context a "brand name" constitutes a type of trademark, if the brand name exclusively identifies the brand owner as the commercial source of products or services. A brand owner may seek to protect proprietary rights in relation to a brand name through trademark registration.

The act of associating a product or service with a brand has become part of <u>pop culture</u>. Most products have some kind of brand identity, from common <u>table salt</u> to <u>designer</u> clothes. In non-commercial contexts, the marketing of entities which supply ideas or promises rather than product and services (eg. <u>political parties</u> or religious organizations) may also be known as "branding".

Consumers may look on branding as an important <u>value added</u> aspect of products or services, as it often serves to denote a certain attractive quality or characteristic. From the perspective of brand owners, branded products or services also command higher prices. Where two products resemble each other, but one of the products has no associated branding (such as a <u>generic</u>, store-branded product), people may often select the more expensive branded product on the basis of the quality of the brand or the reputation of the brand owner.

2.1.1 Literature Related to "History of Branding"

Brands in the field of marketing originated in the 19th century with the advent of packaged goods. Industrialization moved the production of many household items, such as soap, from local communities to centralized factories. These factories, generating mass-produced goods, needed to sell their products to a wider market, to a customer base familiar only with local goods. It quickly became apparent that a generic package of soap had difficulty competing with familiar, local products. The packaged goods manufacturers needed to convince the market that the public could place just as much trust in the non-local product.

Around 1900, James Walter Thompson published a house ad explaining trademark advertising. This was an early commercial explanation of what we now know as branding. Many brands of that era, such as <u>Uncle Ben's</u> rice and <u>Kellogg</u>'s breakfast cereal furnish illustrations of the problem. The manufacturers wanted their products to appear and feel as familiar as the local farmers' produce. From there, with the help of advertising, manufacturers quickly learned to associate other kinds of brand values, such as youthfulness, fun or luxury, with their products. This kickstarted the practice we now known as "branding".

Guiding Principle of Branding

Vortex was developed around a set of guiding principles about branding–proven beliefs that introduce every aspect of our approach, services, and methodologies.

- ➤ Branding gives you the means to break out of the appearance of offering commodity or parity services and products. Nothing—not even an actual improvement in your products or services—can achieve this end as effectively.
- ➤ Branding is neither an art nor a science, but a process of improving relationships. It uses elements, processes, systems, and rules of both science and art. There is no

single, simple solution to brand value improvement; rather, it is an individualized, customized, and evolving landscape.

- ➤ Communications are a critical part, but not the sole aspect of branding. Strategic branding encompasses a continuum of services and systems that extends from corporate goals to customer needs.
- ➤ It is impossible to optimize every branding opportunity effectively. Although all elements are important, not all are equal. Focusing on your brand's strongest characteristics will return greater rewards for less "power."
- ➤ Business prospers and grows when leaders find the essence of the situation, learn the key drivers, and those are presented with clear and narrow choices. Your brand is the place we start, offering a range of services that will transform your organization into one that has the power to move forward.

Brands Loyalty, Concept and Definition

Brand loyalty is a consumer's preference to buy a particular brand in a product category. It occurs because consumers perceive that the brand offers the right product features, images, or level of quality at the right price. This perception becomes the foundation for a new buying habit. Consumers initially will make a trial purchase of the brand and after satisfaction, tend to form habits and continue purchasing the same brand because the product is safe and familiar.

In <u>marketing</u>, Brand loyalty is the strongest measure of a <u>brand</u>'s value, it can be demonstrated by repeated buying of a product or service, of a good word of mouth and advocation of a product or service. Even with the availability of other alternatives.¹

Brand loyalists have the following attitude:

"I am committed to this brand.

"I am willing to pay a higher price for this brand over other brands."

"I will recommend this brand to others."

Today, all the marketing activities revolve around the consumer and society. The much advancement made in marketing has established the consumers as the sovereign power in the marketing world. So, in order to be successful in accordance with marketing, products must be produced according to the needs of the consumers and interest of the society. In the modern business world, understanding consumer choice, purchasing decision-making process etc. or say understanding consumer behavior is the most important thing to take into consideration to become a successful marketer. Study of consumer behavior is prevailed as an effective measure helping to develop the successful marketing strategy. This growing need, an important part of the behavioral study of consumer, gave birth to loyalty on branding as a separate subject of study.

"Loyalty on branding" is a temporal aspect of consumer behavior. Loyalty on branding analysis mean, whether or not a consumer is loyal to a specific brand or set of brands in a certain time.

Studies of loyalty on branding began when researchers on consumer behavior became popular around the late 1950s and early 1960s. Most of the products today are sold by the brands. In the developed countries like UK, USA, and Japan, even vegetable products are sold by brands. This increasing use of brand has significantly increased the necessity to understand the loyalty in branding behavior of the consumer. According to Schiffman and Kanuk, "Just as there are different approaches to the definition and measurement of information processing; checks there are different views as to the definition of brand loyalty." Different scholars, experts, behavioral scientists and researchers have defined brand loyalty in different ways and have utilized different approaches and criteria to measure brand loyalty. Some defined it in terms of consumer behavior, while others defined it in terms of consumers as well as their attitude.

Marketing has been developing along with development in human civilization. If we trace three-four centuries back to the history of human civilization, we find marketing of that time, by modern standards, was relatively uncultured. They did not need any mechanism or tolls or techniques of marketing as used today. Now all situations have changed the needs and wants have changed. Human aspiration for excellence and better status have given birth to thousand of discoveries, inventions and innovations and established thousands of units of different types of industries to fulfill that aspiration. These changes, in turn, not only invented different sophisticated tools and techniques and effective strategies for successful marketing but also made the marketing a most competitive field. Knowing the importance of loyalty on branding, many researches have been carried out. Different researchers effort on different base and have used different measures of brand loyalty. Hence, it seems very necessary to pay particular attention on definition of the term and approaches to measurement while reviewing the researches.

One of the earliest studies defined on loyalty by James F. Engel and Roger Blackwell, "The sequence of purchasing a specific brand, the key of this definition is that the purchasing pattern of a specific band determines loyalty to the brand. This definition classifies brand loyalty into four categories: 1. Undivided loyalty 2. Divided Loyalty 3. Unstable Loyalty and 4. No Loyalty."

"Brand loyalty is the proportion of total purchase within given product category devoted to the most frequently purchased brand."

The definition of loyalty on branding that is based on the brand choice sequence approach or preferences over time approach or proportion of purchase approach are the operational definitions. They so not make any differentiation between a spurious loyal buyer and a true loyal buyer. Similarly, according to these definitions, it is difficult to compare the findings. For example, even in the same study, result may vary according to the approaches used. They define brand loyalty in terms of consumer behavior or consumer purchases only. In this sense, they are based on repeat purchase behavior rather than

brand loyalty behavior. "To be truly brand loyal, the consumer must hold a favorable attitude toward the brand in addition to purchasing it repeatedly"

The definition given by Jacoby is considered the best, easiest to understand and most complete of all the definitions based on preference purchase approach. Jacoby states, "Brand loyalty is (1) the biased (i.e. on random) (2) behavioral response i.e. purchase (3) expressed over time (4) by some decision madding unit (5) with respect to one or more alternative brands out of asset of such brands, and is (6) a function of psychological (i.e. decision making evaluative) processes."

The theme of Jacoby's definition of loyalty on branding should be measured in terms of the both consumer purchases and consumer preferences. Loyalty on branding is purchase behaviour of a decision-making unit. Such behaviour is based on psychological processes and is biased for one or more brands for a specific Period. Jacoby's definition is quite able to distinguish between a true loyal buyer and spurious loyal buyer. Evaluation of a consumer's purchases explains which specific brand or a set of brand a consumer purchases repeatedly whereas the evaluation of consumer preference answers why he/she repeats purchase of that brand or brands. He may buy some brands due to many factors such as psychological commitment, ignorance of other alternative brand or brands, unavailability of other alternative brands or many other factors. Anyway, it is necessary to know which factor is contributing to loyalty.

Another important aspect of Jacoby's definition is that it recognises the existence of multi-brand. When we speak of loyalty on branding, we concentrate our mind on a specific brand. However, reality is rather different, loyalty on branding means loyalty to one or more brands that the consumer repeatedly purchase the given product category.

Since preference purchase definition of brand loyalty includes both the consumer preference and the consumer purchase, it puts forward a clear concept of brand loyalty. Brand loyalty, as a concept, is both an input variable and an output variable. As input variable, it is the cause of the consumer decision and as an out variable; it is the result of

the consumer decision. Therefore, researchers have not only defined what brand loyalty is but have also endeavoured to find out how it, i.e. brand loyalty develops. How the loyalty on branding has placed the important literature on brand loyalty. However, the researchers do not have same attitude toward the brand loyalty. Likewise, on definitions, the researchers have different views on how loyalty develops.

Brand loyalty, in fast moving consumer goods categories, is a topical issue, with several brands resorting to price cuts across categories. More importantly, price cuts or sales promotion by themselves do not seem to have done much for brands in terms of sustaining brand loyalty. They may attract consumers in the short run. Consumers may stock the brands and consumers new to the brand may try it. But over a period, the brand's value may be diluted in consumers' psyche and will eventually lose a strong base of consumers.

Factors for Building & Maintaining Brand Loyalty

Building and maintaining brand loyalty have been a central theme of marketing theory and practice in establishing sustainable competitive advantage. In traditional consumer marketing, the advantages enjoyed by a brand with strong customer loyalty include ability to maintain premium pricing, greater bargaining power with channels of distribution, reduced selling costs, a strong barrier to potential new entries into the product/service category, and synergistic advantages of brand extensions to related product/service categories.

The following are some aspects of marketing mix elements and consumer behavior, which could contribute to brand loyalty:

Product Differentiation

If the products are differentiated in terms of their characteristics and this difference is perceivable, there are chances of brand loyalty being formed based on satisfaction with greater performance or fit of product with needs. In this case, loyalty is driven by functional or symbolic benefits. Functional benefits would be specific tangible features of the product whereas symbolic benefits would be intangibles such as brand personality and "hedonistic" value of purchase.

Price Differentiation

If the price differentiation in the market is perceivable, price-led loyalty might exist in the market. Price-led loyalty is practiced by supermarkets, airline companies and FMCG brands, which come out with frequent sales promotions based on freebies. Alternatively, price might be taken as an indicator of brand quality, and the customer might go in for higher priced options. Price-led loyalty has to be carefully considered with other marketing mix elements and the consumers should never perceive dilution, especially in low-priced bands. Hence, lower prices should create a sense of value through the product offerings as well as through communication.

Branding

If the category is organized and there is branding activity, there will be greater loyalty than there would have been if the category were unorganized. Branding activities can differentiate between brands on name, symbol, images and associations. Branding activity, in this context, refers to creating strong associations that will influence the consumers not only with regard to functional attributes but also with symbolism. Ruf and Tuf's campaign using a personality-oriented concept to create a belief in products made in one's own country is another new approach to branding activity (especially in a category with Western origins). Creating an association through sponsorship too is a branding activity. Branding activities in a broad sense could range from advertising to sales promotion and public relations involving several aspects.

Level of Risk

The perceived risks that typically occur are functional, social and psychological risks. These kinds of risks are perceived in several products ranging from personal care products to electric cars. A pioneering brand in a category, which offers a good product and addresses the perceived risks associated with the product, is likely to get a loyal base of consumers. Amazon.com, one of the global pioneers in the business of online marketing which initially involved traditional categories, books and music, addressed and successfully overcame "the perceived risk" barrier to have a large group of loyal consumers. Smaller brands that compete with mega brands in the area of personal care (for example) can approach loyalty with this dimension. How does a good but lower-priced fairness cream ensure that consumers do not perceive health or usage risks?

Involvement of Consumer

A high brand involvement would mean a greater search intention, and satisfaction of the customer could lead to repeat purchase and then loyalty. Low involvement could lead to brand habit. Researching the involvement levels of consumers helps to decide which of the marketing mix elements will be useful to create a trial, and hence loyalty.

Sales Promotions

The more the number of price-discount led sales promotions, the lesser the likelihood of brand loyalty in the category/segment that is the focus of such efforts. This is because the consumers are inducted into the price war mind set. Sales promotions by themselves as a concept are not a bad idea provided they are used well with the overall strategy of the brand. A premium brand, which gets into frequent sales promotion, has the risk of losing its premium a permanent damage to a brand, which has spent years creating the premium aura. The factors discussed cannot be treated in isolation. They are to provide a synergy to result in brand loyalty. The combination of these factors and the timing of the

combination is the topical challenge which marketers face in an environment where loyalty is slowly eroding.

Brand Switching

Brand switching means consumer's habit of constantly shifting from one brand to other. In this sense, brand switching is opposite to brand loyalty. A brand loyal consumer is stuck with the specific brand or sets of brands. The buyer who is habitual to brand switching is loyal to no brand. Understanding why consumers are involved in brand switching behavior is very important for complete understanding of the brand loyalty behavior.

There are many causes of brand switching behavior. It is not usual to switch brands simply because of variety seeking. Some consumers switch brands because they are dissatisfied or bored with the same product; whereas, others switch brand because they are concerned with price rather than brand names.

Consumers having been loyal to a brand for a long time may switch to other brand because of being dissatisfied or being bored with the brand, he has been using for the long time.

Similarly, if the consumers are more prices sensitive, then even a slight discount on the products of competitive brand may make him move towards those brands that offer cheaper products. However, the research on the brand switching reveals that brand switching is not very risky as it is tough. In other words, brand switching is not very much threatening to the manufacturers. A recent study on consumer purchase habits reported that brands with larger market shares have proportionately larger group of loyal buyers.

Thus, it follows that some interpersonal factors such as dissatisfaction, price consciousness and aspiration for testing new brands causes brand switching. Similarly,

external factors such as price, deals coupons, free samples etc. cause brand switching. However, the researches show that such brand switching cannot be converted into brand loyalty. The consumers do not keep in sticking up to the brand that they are switched to.

Brand Loyalty Correlation

Brand loyalty correlation means the various factors that are associated or related with the differential degrees of brand loyalty. Brand loyalty correlation explains why brand loyalty varies across the product and consumers. Similarly, brand loyalty correlations identify the characteristics of brand loyal consumers and distinguish them from the non-loyal ones. Thus, the loyalties on branding correlation are of high importance for the marketers. Therefore, there must not be any conditions or confusions about the correlation. Correlation must be defined and stated precisely so that the marketer could use them as the guidelines for making strategies. And, this can be better done by improving the weakness of the past attempts and by developing the most scientific and accepted research tradition.

Many researches have been conducted to find out such correlation of brand loyalty. Engel and Blackwell, after analyzing the findings of around 34 researchers conducted by various scholars and experts, have made the following conclusions:

- ➤ Socioeconomic, demographic and psychological variables generally do not distinguish brand loyal consumers from other consumers when traditional definitions of brand loyal have been used.
- ➤ When extended definitions of brand loyalty are used, some socioeconomic, demographic and psychological variables are related to brand loyalty. However those relationships tend to be product specific rather than ubiquitous across product categories.

- ➤ There is limited evidence that the loyalty behavior of an informal group leader affects the behavior of the other group members.
- > Store loyalty is commonly associated with brand loyalty.
- There are some evidences that brand loyalty is inversely related to the number of store shopped.
- ➤ The relationship between amount purchased and the brand loyalty are uncertain because of contradictory findings.
- There is little evidence that perceived risk is positively related to brand loyalty.
- ➤ Market structure variables, including the extensiveness of distribution and market share of leading brand exert a positive loyalty on brand loyalty.
- The effect of the number of the alternative brands, special deals and price activity are uncertain due to contradictory findings.

Thus, the conclusion made by Engel and Blackwell is that even the researchers have found out some factors such as socioeconomic, demography, store loyalty, number of stores shopped, market share of leading brands and the correlation of brand loyalty. However, their findings are contradictory concerning to other factors such as amount purchased, inter-purchase time, number of alternative brands etc. It seems that researchers have not yet been reached to any concrete result about what are correlation and non-correlation of brand loyalty.

Brand loyalty correlation is the important aspect of the study of loyalty on branding. Brand loyalty correlation tells why brand loyalty varies across products and consumers. Similarly, brand loyalty correlation identifies the characteristics of brand loyalty consumers and distinguishes them from the non-loyal ones. Thus, there must not be any contradiction or confusions about the correlation. Correlation must be defined and stated precisely so that the marketer could use them as the guidelines for making strategies.

Moreover, this can be better done by improving the weakness of the past attempts and by developing the most scientific and accepted research tradition.

Brand Loyalty Model

A wide Varity of models have been employed in an attempt to understand and predict brand loyalty behavior of the consumer. They identify factors affecting loyalty behavior and predict how such factors affect behavior in the future.

The models that have been employed to analyze the brand loyalty behavior are stochastic in nature. Stochastic models predict behavior based on probabilities. That is to say, stochastic models treat the response of the consumer in the market place as the outcome of some probabilistic processes. The models recognize that there are many factors such as consumer variable and exogenous variable that determine the out of behavior. Even though these factors or variable are not measured or explicitly included in the model, they are represented by probability distribution and their affect is accounted. So far, most attempts at stochastic modeling have been concerned with predicting brand—switching behavior and the rate of trail and repeat purchasing for new products.

Bernoulli Model

This is the earliest model of brand loyalty. In this model, the consumer is assumed to have a constant probability (p) of purchasing the brand under study. The probability (P) is determined from aggregate brand choice data and is assumed independent of all external influences, Prior purchases or consumer characteristics. In this model, the probability of purchasing brand A at a particular occasion (T) is represented by P (AT)

This model suggests that there is no feedback from post purchase events. The response function is free to change over time if, however, suggests that number of brands available at a store, specia7l price deals and out of stock situation of the brand influence the probability function. This shows that if brand A becomes available at many stores, then

the probability of buying that brand may be greater for the consumers who purchase that brand.

There are several variations of the basic Bernoulli model. Although these variations have explicitly considered the heterogeneity in the population, yet they have not abandoned the assumption made by the basic model, i.e. the past purchases have no effect on the present or future purchase probability.

Markov Model

This model takes the assumption about past purchases; it assumes that past purchases influence the probability of current purchase. Many models have been built up on this assumption and they are known as Markov models. Among these models, the most commonly used one is the first-order Markov model.

The first-order Markov model analyses the impact of short-term consumer learning on the purchases probability. This model assumes that the outcome of the last purchases decision affects the brand choice probability on the next trial but the model denies that except the last one other previous purchase have no effect on the probability. For example, the purchase sequences AB and BB would both lead to the same prediction about probability of purchasing brand 'A' on the next purchases because in the both cases the last purchase is brand 'B'.

The first-order Markov model can be better illustrated by a product category having three brands. Let us suppose the following probabilities representing brand choice behavior of customers in a place.

	Next purchase					
Last purchase	A	В	С			
A	0.80%	0.10%	0.10%			
В	0.10%	0.60%	0.30%			

The probabilities stated in the table above or the transitional matrix given above show that the brand purchase in the last purchase exerts great influence on the probabilities that is applicable in the net purchase. That is, if a consumer had purchased brand 'A' in last the purchase, it is almost certain that it will be bought in the next purchase. But, if a consumer had purchased brand 'A' during a certain period, there is a 80% chances that he will buy 'A' again during the next purchase, 10% chance of buying 'B' and 10% chances of buying 'C'. If the same consumer had purchased brand 'B' in place of brand 'A' in the last purchase, then his chance of buying brand 'A' in the next purchase is 10% that of buying 'B' is 60% and of 'C' is 30%. The transitional matrix mentioned above which the Markov model assumes to be stationary (i.e. that remain unchanged through time) can be used to predict the future brand-share values for A, B, and C. Furthermore, the transitional matrix (probabilities) in the model is used as one way of measuring both the holding power of a given brand and its ability to attract patronage from other brands. Further, more, this model has been used to estimate the number of periods that will pass before a given brand will be tried.

However, there are some factors in the first-order Markov model that the other experts point out as the weaknesses of the model. They have challenged the assumptions such as stationary transitional matrix first-order, population homogeneity etc. and have developed other models, tough following the principle of basic Markov model (i.e., previous purchase affects the brand choice probability in the present and future), which are, largely, independent of these assumptions. Some of such models are the second-order Markov models, which consider the effect of last two purchases, models based on non-

stationary transitional matrix and the models taking into account the impact of population heterogeneity.

Linear Learning Model

The primary concept of this linear learning model is similar to that of Markov model. That is, past purchase affects the future brand-choice. However, this model assumes that the consumer's brand-choice probability changes by a certain amount depending on the outcome of a given brand-choice event (whereas in the Markov model, the probability is set to a predetermined value that depends solely on the outcome of the event). Suppose that buying brand 'A' raises the probability of buying brand A by 10%. If the probability were 0.70 before a given trail, it would be either 0.75 or 0.65 after the trial, depending on the outcome. Similarly, if the initial probability were 0.40, the same model would produce output probability of 0.50 after the purchase of 'A' and 0.35 after the purchase of 'B'. Thus, linear learning model shows that there is a linear relationship between prepurchase and post-purchase probabilities.

For the first time, Alfred Kuchn applied this model to brand choice data and found that it provided good predictions. Many researchers have tested this model even after Alfred Kuchn and have found the performance of the model rather well in the most of the tests. There are many models so far developed as the modifications to the basic linear learning model. Some of them considered as important are those, which incorporate the effects of external market forces into learning model by making their parameters functions of these forces.

New Trier Model

The new Trier Model was developed by David A. Akar to model the behavior of a consumer who has purchased a new brand. New brand, here, implies the one that is not used before by a consumer, or if even used before, that is completely forgotten he had used that before.

According to this model, there is a trial period after the initial purchase and the probability of purchasing a particular brand in the future is an outcome of the consumer's experiences relating to that brand in the trial period. In the initial purchase, the probability of purchasing the particular brand is constant for the consumer who bought it. This is the trial period purchase that affects the probability. After the initial purchase, there may be a number of trial-period purchases. The number of such purchases may vary from consumer to consumer. During the very trial-period purchases, the consumer develops a new purchase of the brand that was purchased in the initial purchase; it may also result into rejection of that brand.

Thus, the new Trier model assumes that past purchase do not affect the present or future purchase probability and the probability is non-stationary and varies from consumer to consumer. Even though the model is considered simple and easier to understand, the assumption of the zero-order processes has limited its use.

Probability Diffusion Model

David Montgomery proposed the probability diffusion model. This model assumes that the past purchases do not affect the brand-choice probability in the time to come. According to this model, an individual's response probability is a function of external environmental factors. The probability is non-stationary and varies from consumer to consumer. Thus the mechanism of the probability diffusion model is to some extent related to that of the Markov Model.

Above we reviewed some; widely used brand loyalty models based on the stochastic structure. Based on the principle of stochastic model, these models therefore cannot be free from the problems immanent into the stochastic model. All the stochastic models of brand loyalty stated above have been applied primarily to the products that are frequently purchased and relatively low priced. These models avoid the issue of multi-brand loyalty, and neglect the change in stochastic process. Similarly, the effects of heterogeneity and non-stationary are quite confusing in the models.

Moreover, the models demand actual purchase dates that is not always obtainable. Thus, it seems that these models still need some modifications or improvements for their effective use in accurate predictions of brand choice behavior.

2.3 Research Gap

This study has been carried out in Kathmandu Kalanki area. In fact, no study has been carried out so far specially or mainly to find out brand loyalty on low involvement consumer product which has not been studied yet. So it fulfils the research gap and open the new gate way for further research.

CHAPTER: III

RESEARCH METHODOLOGY

3.1 Introduction

In the context of Nepalese consumer market, this study is carried out mainly to find out loyalty on branding of the Nepalese consumers. Beside this basic objective, this study has also aimed to identify the factors associated with brand loyalty and examining the brand awareness of the Nepalese consumers. Studying brand loyalty is very much necessary to keep pace with the increasing competition in the market. In the competitive modern business world, research on consumer behavior is considered the most essential activity to be conducted on to become a successful marketer.

It goes without saying that research works are to be much more effective, accurate, useful, and need scientific methods. Hence, this study also employs scientific methods of research. The research methodology employed in the present study is based on primary data as descended below.

Research methodology is the main body of the study; it is the way to solve about research problem systematically. Therefore, research methodology is the research method on techniques to use through the entire study. In other words, research methodology is the process of arriving at the solution of problem through planned and systematic dealing with collection, analysis and interpretation of the fact and figures.

3.2 Research Design

The research design adopted for this study is descriptive based on survey study. This study mainly aims to find out loyalty on branding of the Nepalese consumer. Therefore, the survey research design is adopted for the study. The data and information collected from the survey of the consumer are rearranged, tabulated, analyzed and interpreted according to the need of the study for attaining the stated objectives.

This study is an exploratory study. This study mainly aims to find out loyalty on branding of the Nepalese consumers. Therefore, the survey research design is adopted for the study. The Nepalese ultimate consumers are extensively surveyed to procure data and information about the consumer's personality, purchasing pattern of different brands of the products selected for the study, and their attitude, responses and reaction relating to the brands. The data and information collected from the survey of the consumer are rearranged, tabulated, analyzed and interpreted according to the need to the study for attaining the stated objectives.

3.3 Nature and Sources of Data

The data used are primary in nature. These primary data required for the study are collected from the consumers of Kathmandu Metro city Kalanki area.

3.4 Populations and Sampling

All consumers of related products in Kathmandu Metro city Kalanki area are population of the study. It is almost impossible to include the whole population in the study. Therefore, out of this population, only 200 samples are taken for this study. The snowball sampling technique (purposive sampling) is applied as sampling method.

3.5 Method of Data Collection

Structured questionnaire is used to collect the primary data from the respondents. Personal interview is conducted with the respondents with the help of the questionnaire.

3.6 Data Analysis

The obtained data are presented in various tables, diagrams and charts with supporting interpretations. Data are tabulated according to the nature of data. Chi-square test of independence is used to test the hypothesis. Percentage analysis method is also used.

CHAPTER: FOUR

DATA PRESENTATION AND ANALYSIS

The previous chapters incorporated introduction of study, review of the literature and

research methodology employed in the study respectively. This chapter incorporates

data presentation and analysis. The data and information collected from the

respondents are presented, interpreted, and analyzed according to response of

respondents on the field survey. All the questionnaires were distributed and collected

by the researcher himself. Every questionnaire was thoroughly checked after the

collection of all the questionnaires distributed. With the help of SPSS programme

software all response of consumer are preceded, categorized in their respective

disciplines. This chapter analyzes consumer response to brand loyalty in terms of their

demographic profile.

4.1 Sex and Brand Loyalty.

Under this topic, consumers' response on brand loyalty in terms of sex is analyzed

according to the selected product categories.

4.1.1 Sex and Brand Loyalty: Soap

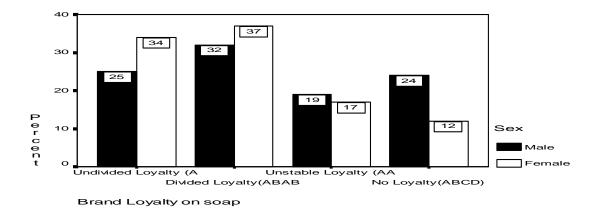
35

The number of respondent of this product is 200. According to their response Dettol, Liril Lux, humam, lifebouy, Niva, cammy, Mayalu, Peairs, Tulasi, glory, deluxe, etc. are the different brands of soap available in Nepalese market. In the survey, both male and female respondents were asked to name the soap of their last four purchases. Then the loyalty on the specific brand is considered according to their purchase pattern. Total numbers of respondents are categorized into four groups according to their purchase pattern and preference relating to the different brands of soap. Table 1 presents the frequency and percentage distribution of respondents by sex and different degree of brand loyalty on soap.

Table no 1:Sex and Brand Loyalty on Soap

Brand loyalty	Male		Female		Total	
	Frequenc	%	Frequenc	%	Frequenc	%
	У		У		У	
Undivided Loyalty (AAAA)	25	25	34	34	59	29.5
Divided Loyalty (ABAB)	32	32	37	37	69	34.5
Unstable Loyalty (AABB)	19	19	17	17	36	18
No Loyalty (ABCD)	24	24	12	12	36	18
Total	100	100	100	100	200	100

Source: Field survey 2010.



(Figure no 1)

Table and chart presented above reveals that most of the respondents (34.5%) are divided brand loyal followed by undivided brand loyalty (29.5%). The number of people who are unstable brand loyal (18%) and non –loyal (18%) is found to be equal. In terms of sex, females are found to be more loyal in specific brand of soap.25 percent male respondents and 34 percent female respondents are strongly loyal whereas 32 percent male and 37 percent female are found to have divided loyal. Additionally 19 percent male respondent and 17 percent female respondents are found to be unstable in terms of brand loyalty. In addition, remaining 24 percent male and 12 percent female respondent are found to be non loyal in any specific brand of soap.

4.1.1 (a) Sex and Brand Loyalty on Soap Chi -square Test

 H_0 : There is no significant difference in brand loyalty between male and female.

Table no 2: Chi-square calculation of Sex and Brand Loyalty

Level of significance	0.05
Number of row	4
Number of column	2
Degree of freedom	3
Tabulated value	7.815
Chi square test statistic	5.846

Since chi square (χ^2) test statistic (5.846) is less than chi square (χ^2) tabulated value (7.815) value; hence, this shows that males and females are found to be equally brand loyal in the case of soap. There is no significant difference between male and females. Therefore, the null hypothesis has been accepted.

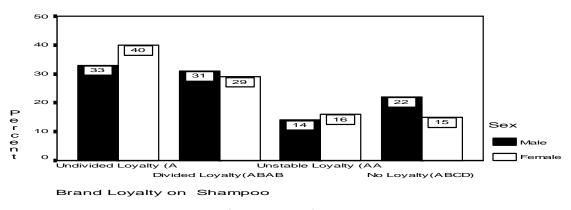
4.1.2 Sex and Brand Loyalty: Shampoo

Following table and chart presents the frequency and percentage distribution of respondents by sex and different degree of brand loyalty on shampoo.

Table no 3: Sex and Brand Loyalty on Shampoo

Brand loyalty	Male		Female		Total	
	Frequenc	%	Frequency	%	Frequenc	%
	У				У	
Undivided Loyalty (AAAA)	33	33	40	40	73	36.5
Divided Loyalty (ABAB)	31	31	29	29	60	30
Unstable Loyalty (AABB)	14	14	16	16	30	15
No Loyalty (ABCD)	22	22	15	15	37	18.5
Total	100	100	100	100	200	100

Source: Field survey 2007.



(Figure no 2)

Table and chart presented above shows the sex and brand loyalty on shampoo. Among the 200 respondents 36.5 percent respondent are found strongly loyal on specific brand of shampoo. They have brought same brands AAAA in their last four purchases, they are said to be true loyal buyers. Divided brand loyalty is found in 30 percent of total

respondents, they are better to say multi brand loyal as they brought ABAB in their last four purchases. Additional 15 percent respondents are found unstable brand loyal as they brought AABB in their last four purchase and remaining 18.5 percent respondent are found non loyal because their purchasing pattern do not match with their preference.

In terms of sex, 33 percent male respondents and 40 percent female respondents are strongly loyal on the specific brand of shampoo whereas 31 percent male and 29 percent female find to be divided brand loyal. 14 percent male respondent and 16 percent female respondents are found to be unstable in their purchasing decision. In addition, remaining 22 percent male and 15 percent female respondent are found to be non loyal in any specific brand of shampoo.

4.1.2 (a) Sex and Brand Loyalty on Shampoo Chi -square Test

 H_0 : There is no significant difference in brand loyalty between male and female.

Table no 4:

Chi square calculation of Sex and Brand Loyalty

Level of significance	0.05
Number of row	4
Number of column	2
Degree of freedom	3

Tabulated value	7.815
Chi square test statistic	2.196

Since chi square (χ^2) test statistic (2.196) is less than chi square (χ^2) tabulated value (7.815) value; hence, this shows that males and females are found to be equally brand loyal in the case of Shampoo. There is no significant difference between male and females. Therefore, the null hypothesis has been accepted.

4.1.3 Sex and Brand Loyalty: Mineral water

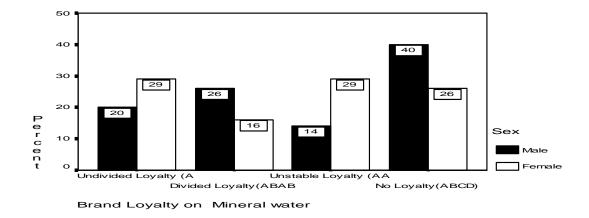
The number of respondent of this product is 200. According to their response H2O, Thirst-pi, Yes, Bisleri, Aqua-100, Ia, etc. are the different brands of mineral waters available in the Nepalese market. The frequency and percentage distribution of the response of consumer according to their purchase pattern and preference relating to different brands of Mineral water are displayed in the following table.

Table :no 5
Sex and Brand Loyalty: Mineral water

Brand loyalty	Male		Female		Total	
	Frequenc	%	Frequenc	%	Frequency	%
	У		У			
Undivided Loyalty (AAAA)	20	20	29	29	49	24.5

Divided Loyalty (ABAB)	26	26	16	16	42	21
Unstable Loyalty (AABB)	14	14	29	29	43	21.5
No Loyalty (ABCD)	40	40	26	26	66	33
Total	100	100	100	100	200	100

Source: Field survey 2010.



(Figure no 3)

Table displays that the majority of the respondents (33%) fall in to the purchase pattern of group ABCD i.e. they are not loyal on specific brand of mineral water as their purchasing pattern do not match with their preference. 24.5 percent respondents are found undivided brand loyal and 21 percent are found divided loyalty. Remaining 21.5 percent, respondents are found unstable brand loyal.

40 percent female and 26 percent male respondent are found non loyal, 29 percent female and 24.5percent male are found undivided loyal. Additional 29percent female

and 14 percent male are found unstable loyal remaining 16 percent female and 26 percent male are found divided loyal in terms of purchasing mineral water.

4.1.3 (a) Sex and Brand Loyalty on Mineral water Chi square Test

 H_0 : There is no significant difference in brand loyalty between male and female.

Table no 6: Chi square calculation of Sex and Brand Loyalty

Level of significance	0.05
Number of row	4
Number of column	2
Degree of freedom	3
Tabulated value	7.815
Chi square test statistic	12.236

Since chi square (χ^2) test statistic (12.236) is more than chi square (χ^2) tabulated value (7.815) value; hence, this shows that males and females are found to be not equally brand loyal in case of Mineral water. There is significant difference between male and females. Therefore, the null hypothesis has been rejected.

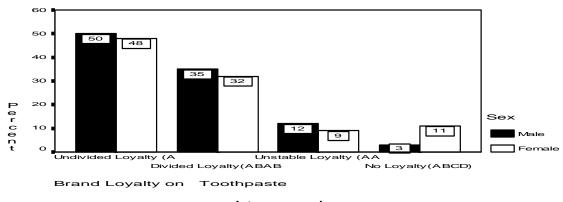
4.1.4 Sex and Brand Loyalty: Toothpaste

The response of consumer according to their purchase pattern and preference relating to different brands of toothpaste are presented in the following table.

Table: no 7
Sex and Brand Loyalty on Toothpaste

Brand loyalty	Male		Female	Female		al
	Frequenc	%	Frequency	%	Frequenc	%
	У				У	
Undivided Loyalty (AAAA)	50	50	48	48	98	49
Divided Loyalty (ABAB)	35	35	32	32	67	33.5
Unstable Loyalty (AABB)	12	12	9	9	21	10.5
No Loyalty (ABCD)	3	3	11	11	14	7
Total	100	100	100	100	200	100

Source: Field survey2010



(Figure no 4)

Given Table and chart reveals that majority (49%) respondents are strongly brand loyal in case of shampoo followed by divided loyalty (33.5%). Additional 10.5 percent respondents are found unstable brand loyal and remaining 7 percent respondent are found non loyal because there purchasing pattern do not match with their preference.

In terms of sex, 50 percent male respondents and 48 percent female respondents are strongly loyal whereas 35 percent male and 32 percent female are found to have divided brand loyal. Additionally 12 percent male respondent and 9 percent female respondents are found to be unstable in terms of brand loyalty. Moreover, remaining 3 percent male and 11 percent female respondent are found to be non loyal in any specific brand of toothpaste.

4.1.4 (a) Sex and Brand Loyalty on Toothpaste Chi square Test

 H_0 : There is no significant difference in brand loyalty between male and female.

Table: no 8

Chi square calculation of Sex and Brand Loyalty

Level of significance	0.05
Number of your	4
Number of row	4
Number of column	2

Degree of freedom	3
Tabulated value	7.815
Chi square test statistic	5.175
•	

Since chi square (χ^2) test statistic (5.175) is less than chi square (χ^2) tabulated value (7.815) value; hence, this shows that males and females are found to be equally brand loyal in case of Toothpaste. There is no significant difference between male and females. Therefore, the null hypothesis has been accepted.

4.1.5 Sex and Brand Loyalty: Hair Oil

The frequency and percentage distribution of consumers' response according to their purchase pattern and preference relating to different brands of Hair oil are given in the following table.

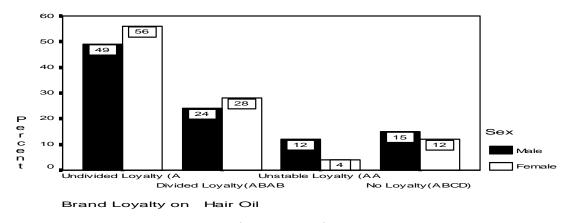
Table: no 9

Sex and Brand Loyalty: Hair Oil

Brand loyalty	Male	Female	Total

	Frequenc	%	Frequency	%	Frequency	%
	У					
Undivided Loyalty (AAAA)	49	49	56	56	105	52.5
Divided Loyalty(ABAB)	24	24	28	28	52	26
Unstable Loyalty (AABB)	12	12	4	4	16	8
No Loyalty (ABCD)	15	15	12	12	27	13.5
Total	100	10	100	10	200	100
		0		0		

Source: Field survey 2010.



(Figure no 5)

Given table and chart shows that 52.5 percent respondent are found strongly brand loyal in case of Hair oil. The percentages of divided brand loyal, unstable brand loyal and non-loyal respondents are 26, 8 and 13.5 respectively.

49 percent male respondents and 56 percent female respondents are found to be strongly loyal on specific brand of hair oil whereas 28 percent male and 26 percent female are divided brand loyal. 12 percent male respondent and 4 percent female respondents are found to be unstable in terms of brand loyalty. And remaining 15 percent male and 12 percent female respondent are found to be non loyal in any specific brand of Hair oil

4.1.5 (a) Sex and Brand Loyalty on Hair oil Chi-square Test

 H_0 : There is no significant difference in brand loyalty between male and female.

Table

no 10: Chi square calculation of Sex and Brand Loyalty

Level of significance	0.05
Number of row	4
Number of column	2
Degree of freedom	3
Tabulated value	7.815
Chi square(χ²)test statistic	5.108

Since chi square (χ^2) test statistic (5.108) is less than chi square (χ^2) tabulated value (7.815) value; hence, this shows that males and females are found to be equally brand loyal in the case of Hair oil. There is no significant difference between male and females. Therefore, the null hypothesis has been accepted.

4.2 Age and Brand Loyalty

Peoples' age may be one of the factors that affect their choice. The choice of young people may not be preferred by the ageing people. Under this topic, consumers' response on brand loyalty in terms of age is analyzed according to the selected product categories. The ages of the respondents are divided into four groups viz. 15-20, 20-25, 25-30 and 30 and above. In the survey, respondents of different age group were asked to name the brand of product of their last four purchases. Then the loyalty on the specific brand is considered according to their purchase pattern and preferences.

4.2.1 Age and Brand Loyalty: Soap

Following table presents the frequency and percentage distribution of respondents by age and different degree of brand loyalty on soap.

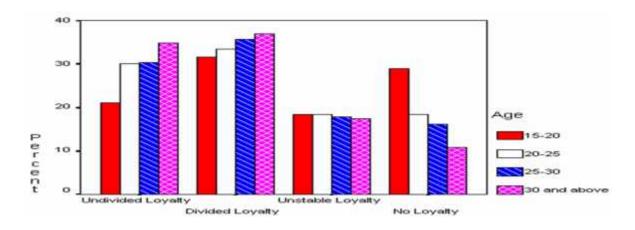
Table no 11

Age and Brand Loyalty on Soap

Brand loyalty	Age	Age Group											
	15-2	0	20-2	25	25-30)	Abov	Above 30					
	No.	%	No	%	No	%	No	%	No.	%			
Undivided Loyalty AAAA	8	21.1	18	30	17	30.4	16	34.8	59	29.5			
Divided Loyalty (ABAB)	12	31.6	20	33.3	20	35.7	17	37	69	34.5			
Unstable Loyalty (AABB)	7	18.4	11	18.3	10	17.9	8	17.4	36	18			
No Loyalty (ABCD)	11	28.9	11	18.3	9	16.1	5	10.9	36	18			
Total	38	100	60	100	56	100	46	100	200	100			

Source: Field survey 2010

Age and brand loyalty: soap



(Figure no 6)

The above table and chart reveals that 21.1 percent respondents of 15-20 age group, 30 percent respondents of 20-25 age group, 30.4 percent respondents of 25-30 years age

group and 34.8 percent respondents of 30 and above age group are found to be undividedly loyal on the specific brand of soap. In the same way 31.6 percent respondents of 15-20, age group, 33.3 percent respondents of 20-25 age group, 35.7 percent respondents of 25-30 years age group and 37 percent respondents of 30 and above age group are found to have divided brand loyal. Similarly, 18.4 percent respondents of 15-20, age group, 18.4 percent respondents of 20-25, age group, 19.9 percent respondents of 25-30, years age group and 17.4 percent respondents of 30 and above age group are found to be unstable in terms of brand loyalty. Lastly 28.9 percent respondents of 15-20 age group, 18.3 percent respondents of 20-25 age group, 16.1 percent respondents of 25-30 years age group and 10.9 percent respondents of 30 and above age group are non loyal in any specific brand.

4.2.1 (a) Age and Brand Loyalty on Soap Chi -square Test

 H_0 : Age of the individual does not have significant influence on the brand loyalty.

Table no 12

: Chi square calculation of Age and Brand Loyalty

Level of significance	0.05
Number of row	4
Number of column	4
Degree of freedom	9
Tabulated value	16.9186

Chi square test statistic	5.988969

Since chi square (χ^2) test statistic (5.988969) is less than chi square (χ^2) tabulated v (16.9186) value; hence this shows that there is no relation between age and brand loyalty. Therefore, null hypothesis is accepted.

4.2.2 Age and Brand Loyalty: Shampoo

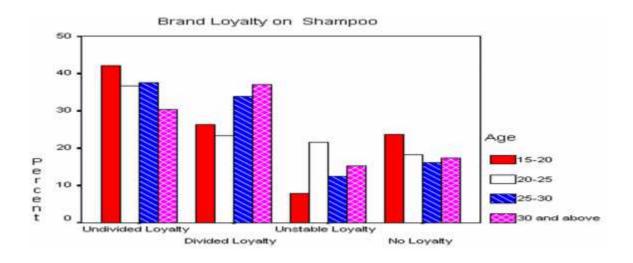
The response of different age groups respondent according to their purchase pattern and preference relating to different brands of Shampoo are given in the following table.

Table no 13: Age and Brand Loyalty on Shampoo

Brand loyalty	Age Group								Total			
	15-2	0	20-2	25	25-30		25-30		-30 Above 30			
	No.	%	No	%	No.	%	No.	%	No.	%		
Undivided Loyalty	16	42.1	22	36.	21	37.5	14	30.4	73	36.		
(AAAA)				7						5		
Divided Loyalty	10	26.3	14	23.	19	33.9	17	37	60	30		
(ABAB)				3								
Unstable Loyalty	3	7.9	13	21.	7	12.5	7	15.2	30	15		
(AABB)				7								

No Loyalty (ABCD)	9	23.7	11	18.	9	16.1	8	17.4	37	18.
				3						5
Total	38	100	60	100	56	100	46	100	200	100

Source: Field survey 2010.



(Figure no 7)

The above table and chart reveals that 42.1 percent respondents of 15-20 age group, 36.7 percent respondents of 20-25 age group, 37.5 percent respondents of 25-30 years age group and 30.4 percent respondents of 30 and above age group are found to be undividedly loyal on the specific brand of shampoo. In the same way 26.3 percent respondents of 15-20 age group, 23.3 percent respondents of 20-25 age group, 33.9 percent respondents of 25-30 years age group and 37 percent respondents of 30 and above age group are found to be divided brand loyal. Similarly 7.9 percent respondents of 15-20 age group, 21.7 percent respondents of 20-25 age group, 12.5 percent

respondents of 25-30 years age group and 15.2 percent respondents of 30 and above age group are found to be unstable in terms of brand loyalty. Lastly 23.7 percent respondents of 15-20 age group, 18.3 percent respondents of 20-25 age group, 16.1 percent respondents of 25-30 years age group and 17.4 percent respondents of 30 and above age group are non loyal in any specific brand.

4.2.2 (a) Age and brand loyalty on Shampoo Chi square Test

 H_0 : Age of the individual does not have significant influence on the brand loyalty.

Table no 14: Chi square calculation of Age and Brand Loyalty

Level of significance	0.05
Number of row	4
Number of column	4
Degree of freedom	9
Tabulated value	16.9186

Chi square test statistic	14.62475

Since chi square (χ^2) test statistic (14.62475) is less than chi square (χ^2) tabulated v (16.9186) value; hence this shows that there is no relation between age and brand loyalty. Therefore, null hypothesis is accepted.

4.2.3 Age and Brand Loyalty: Mineral water

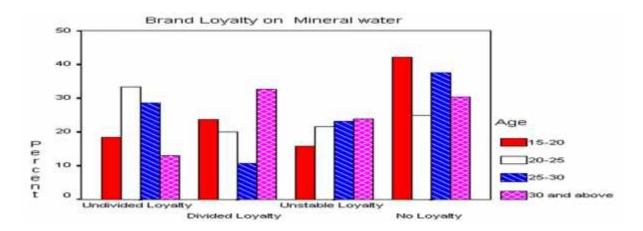
The response of different age groups respondent according to their purchase pattern and preference relating to different brands of Mineral water are given in the following table.

Table no 15: Age and Brand Loyalty: Mineral water

Brand loyalty		Total								
	15	15-20		20-25 25-30 Above 30		ve 30				
	No.	%	No	%	No	%	No	%	No.	%
Undivided Loyalty (AAAA)	7	18.4	20	33.3	16	28.6	6	13	49	24.5
Divided Loyalty (ABAB)	9	23.7	12	20	6	10.7	15	32.6	42	21
Unstable Loyalty	6	15.8	13	21.7	13	23.2	11	23.9	43	21.5

(AABB)										
No Loyalty (ABCD)	16	42.1	15	25	21	37.5	14	30.4	66	33
Total	38	100	60	100	56	100	46	100	200	100

Source: Field survey 2010.



(Figure no 8)

The table and chart presented above reveals that majority of respondents in 15-20 and 25-30 years age group (42.1% and 37.5% respectively) are not loyal in any specific brand of mineral water whereas in age group 20-25 strongly loyal consumers hold the majority (33.3%). Similarly, most of the respondents (32.6%) of 30 and above age group seem to be dividedly loyal on the specific brand of mineral water. Among total 200 respondents, majority belongs to the non-loyal group.

4.2.3 (a) Age and brand loyalty on Mineral water Chi square test

H₀: Age of the individual does not have significant influence on the brand loyalty

Table no 16: Chi square calculation of Age and Brand Loyalty

Level of significance	0.05
Number of row	4
Number of column	4
Degree of freedom	9
Tabulated value	16.9186
Chi square test statistic	14.62475

Since chi square (χ^2) test statistic (14.62475) is less than chi square (χ^2) tabulated v (16.9186) value; hence this shows that there is no relation between age and brand loyalty. Therefore, null hypothesis is accepted.

4.2.4 Age and Brand Loyalty: Toothpaste

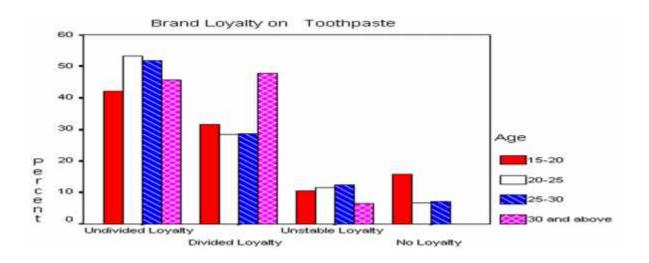
The response of different age groups respondent according to their purchase pattern and preference relating to different brands of Mineral Toothpaste are given in the following table.

Table no 17: Age and Brand Loyalty on Toothpaste

Brand loyalty	Age Group	Total

	15	-20	20-	20-25		25-30		Above 30		
	No.	%	No.	%	No.	%	No.	%	No.	%
Undivided Loyalty (AAAA)	16	42.1	32	53.3	29	51.8	21	45.7	98	49
Divided Loyalty (ABAB)	12	31.6	17	28.3	16	28.6	22	47.8	67	33. 5
Unstable Loyalty (AABB)	4	10.5	7	11.7	7	12.5	3	6.5	21	10. 5
No Loyalty (ABCD)	6	15.8	4	6.7	4	7.1	0	0	14	7
Total	38	100	60	100	56	100	46	100	200	100

Source: Field survey 2010.



(Figure no 9)

The above table and chart reveals that 42.1 percent respondents of 15-20 age group, 53.3 percent respondents of 20-25 age group, 51.8 percent respondents of 25-30 years

age group and 45.7 percent respondents of 30 and above age group are found to be undividedly loyal on the specific brand of Toothpaste. In the same way 31.6 percent respondents of 15-20, age group, 28.3 percent respondents of 20-25 age group, 28.6 percent respondents of 25-30 years age group and 47.8 percent respondents of 30 and above age group are found to have divided brand loyal. Similarly, 10.5 percent respondents of 15-20, age group, 11.7 percent respondents of 20-25, age group, 12.5 percent respondents of 25-30, years age group and 6.5 percent respondents of 30 and above age group are found to be unstable in terms of brand loyalty. Lastly 15.8 percent respondents of 15-20 age group, 6.7 percent respondents of 20-25 age group, 7.1 percent respondents of 25-30 years age group and 0 percent respondents of 30 and above age group are non loyal in any specific brand.

4.2.4 (a) Age and Brand Loyalty on Toothpaste Chi Square Test

 H_0 : Age of the individual does not have significant influence on the brand loyalty

Table: no 18

Chi square calculation of Age and Brand Loyalty

0.05
4

Number of column	4
Degree of freedom	9
Tabulated value	16.9186
Chi square test statistics	12.75237

Since chi square (χ^2) test statistic (12.75237) is less than chi square (χ^2) tabulated v (16.9186) value; hence this shows that there is no relation between age and brand loyalty. Therefore, null hypothesis is accepted.

4.2.5 Age and Brand Loyalty: Hair Oil

The response of different age groups respondent according to their purchase pattern and preference relating to different brands of Hair oil are given in the following table.

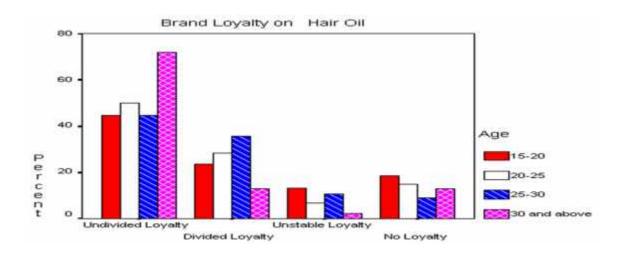
Age and Brand Loyalty on Hair Oil

Table :no 19

Brand loyalty	Age Gr	roup							Total	
	15-20	15-20 20-25 25-30					Above	30		
	No.	%	No.	%	No. %		No. %		No.	%
Undivided Loyalty (AAAA)	17	44.7	30	50	25	44.6	33	71.7	105	52.5
Divided Loyalty (ABAB)	9	23.7	17	28.3	20	35.7	6	13	52	26

Unstable Loyalty (AABB)	5	13.2	4	6.7	6	10.7	1	2.2	16	8
No Loyalty (ABCD)	7	18.4	9	15	5	8.9	6	13	27	13.5
Total	38	100	60	100	56	100	46	100	200	100

Source field survey 2010



(Figure no 10)

The above table and chart reveals that 44.7 percent respondents of 15-20 age group, 50 percent respondents of 20-25 age group, 44.6 percent respondents of 25-30 years age group and 71.7 percent respondents of 30 and above age group are found to be undividedly loyal on the specific brand of Hair oil. In the same way 23.7 percent respondents of 15-20 age group, 28.3 percent respondents of 20-25 age group, 35.7 percent respondents of 25-30 years age group and 13 percent respondents of 30 and above age group are found to be divided brand loyal. Similarly, 13.2, percent respondents of 15-20, age group, 6.7 percent respondents of 20-25 age group, 10.7 percent respondents of 25-30 years age group and 2.2 percent respondents of 30 and above age group are found to be unstable in terms of brand loyalty. Lastly 18.4 percent respondents of 15-20 age group, 15 percent respondents of 20-25 age group, 8.9

percent respondents of 25-30 years age group and 13 percent respondents of 30 and above age group are non loyal in any specific brand. In the total figure majority of respondents (52.5%) seems to be strongly loyal followed by divided loyal (26%), non loyal (13.5%) and unstable loyal (8%) respectively.

4.2.5 (a) Age and Brand Loyalty on Hair oil Chi square Test

 \mbox{H}_{0} : Age of the individual does not have significant influence on the brand loyalty.

Table: no 20
Chi square calculation of Age and Brand Loyalty

Level of significance	0.05
Number of row	4
Number of column	4
Degree of freedom	9
Tabulated value	16.9186
Chi square test statistic	15.22536

Since chi square (χ^2) test statistic (15.22536) is less than chi square (χ^2) tabulated v (16.9186) value; hence this shows that there is no relation between age and brand loyalty. Therefore, null hypothesis is accepted.

4.3 Income and Brand Loyalty

Income is considered the major factor that affects the consumers' choice. Under this topic, degree of loyalty of respondents in any specific brand of the product is analyzed according to their monthly household income.

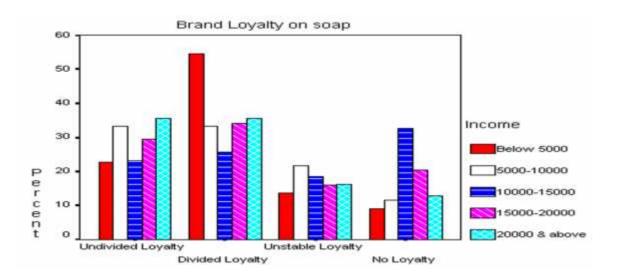
4.3.1 Income and Brand Loyalty: Soap

Under this topic brand loyalty of respondents on specific brand of toilet soap are analyzed with the help of frequency table and bar chart according to their monthly household income.

Table :no 21
Income and Brand Loyalty on Soap

Brand loyalty	Mont	thly Hou	isehc	old Inco	me						Total			
	Belov	v 5000	5000-		10000-		15000-		20000					
			100	00	150	00	20000		and					
											above			
	No	%	N o	%	No	%	N o	%	No	%	No.	%		
Undivided Loyalty (AAAA)	5	22.7	20	33.3	10	23.3	13	29.4	11	35.5	59	29.5		
Divided Loyalty(ABAB)	12	54.5	50	33.3	11	25.6	15	34.1	11	35.5	69	34.5		
Unstable Loyalty (AABB)	3	13.6	13	21.7	8	18.6	7	15.9	5	16.1	36	18		
No Loyalty (ABCD)	2	9.1	7	11.7	14	32.6	9	20.5	4	12.9	36	18		
Total	22	100	60	100	43	100	44	100	31	100	200	100		

Source; field survey 2010



(Figure no 11)

In the above table and chart we can see that among 22 respondents having bellow 5000 monthly income, 22.7 percent are strongly loyal, 54.5 percent are divided loyal, 13.5 percent are unstable loyal and 9.1 percent are non loyal on specific brand of soap. Similarly among 60 respondents having monthly household income 5000-10000, the percentage of strongly loyal person and dividedly loyal person is equal (33.3%). Unstable and non-loyal respondents of this income group are 21.7 and 11.7 percent respectively. Among 43 respondents of income category 10000- 15000, the percentage of undivided, divided, unstable and non-loyal respondents are 23.3, 25.6, 18.6, and 32.6 respectively. Similarly among 44 respondents of 15000-20000 income categories, 29.5 percent are strongly loyal, 34.1 percent are dividedly loyal, and 15.9 percent are unstable loyal and 12.9 percent are non loyal. Among 31 respondents having more than 20000 monthly household income, 35.5 percent are strongly loyal, 35.5 percent are dividedly loyal, 16.1 percent are unstable loyal and 12.9 percent are non loyal on purchasing any specific brand of soap.

4.3.1 (a) Income and Brand Loyalty on Soap Chi -square Test

H₀: There is no effect on income on the brand loyalty.

Table: no
22: Chi square calculation of Income and Brand Loyalty

Level of significance	0.05
Number of row	4
Number of column	5

Degree of freedom	12
Tabulated value	21.02606
Chi square test statistic	14.15205

Since chi square (χ^2) test statistic (14.15205) is less than chi square (χ^2) tabulated (16.9186) value; hence this shows that there is no relation between age and brand loyalty. Therefore, null hypothesis is accepted.

4.3.2 Income and Brand Loyalty: Shampoo

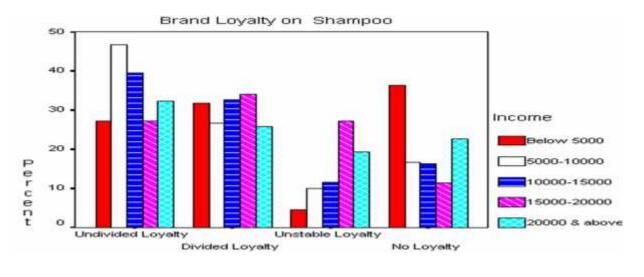
Under this topic brand loyalty of respondents on specific brand of shampoo are analyzed with the help of frequency table and bar chart according to their monthly household income.

Table: no 23
Income and Brand loyalty on Shampoo

Brand loyalty	Monthly Ho	Monthly Household Income								
	Below	5000-	10000-	15000-	20000					
	5000	10000	15000	20000	and					
		above								

	N	%	No	%	No	%	No	%	No	%	No.	%
	О								•			
Undivided	6	27.3	28	46.7	17	39.5	12	27.3	10	32.3	73	36.5
Loyalty (AAAA)												
Divided	7	31.8	16	26.7	14	32.6	15	34.1	8	25.8	60	30
Loyalty(ABAB)												
Unstable	`1	4.5	6	10	5	11.6	12	27.3	6	19.4	30	15
Loyalty (AABB)												
No Loyalty	8	36.4	10	16.7	7	16.3	5	11.4	7	22.6	37	18.5
(ABCD)												
Total	22	100	60	100	43	100	44	100	31	100	200	100

Source: Field survey 2010



(Figure no 12)

The table presented above reveals that majority of respondents (36.4%) in below 5000 income group are non loyal in any specific product of shampoo However opposite to this group, in the income groups 5000-1000, 10000-150000 and 20000 and above,

strongly loyal respondents held the majority. In the income group 15000-20000, most of the respondents belong to dividedly loyal group.

4.3.2 (a) Income and Brand Loyalty on Shampoo Chi square Test

H₀: There is no effect on income on the brand loyalty.

Table: no 24

Chi square calculation of Income and Brand Loyalty

Level of significance	0.05
Number of row	4
Number of column	5
Degree of freedom	12
Tabulated value	21.02606
Chi square test statistic	17.48795

Since chi square (χ^2) test statistic (17.48795) is less than chi square (χ^2) tabulated (21.0260) Value, the null hypothesis is accepted. Hence, there is no significant difference in any income group on brand loyalty.

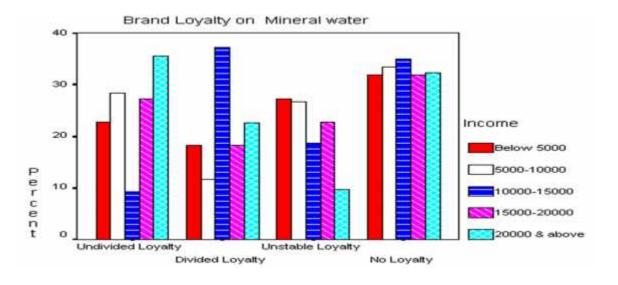
4.3.3 Income and Brand Loyalty: Mineral water

In the case of product mineral water, majority of respondents in all income group except in the group 20000 and above are non loyal in any brand. In the income group (20000 and above) strongly loyal respondents constructs the majority (35.5%). (Table: 25and figure13)

Table :no 25
Income and Brand Loyalty: Mineral water

Brand loyalty	Monthly Household Income								Total			
	Below 5000		5000-10000		10000- 15000		15000- 20000		20000 and above			
	No	%	No.	%	No	%	No	%	No.	%	No.	%
Undivided Loyalty (AAAA)	5	22.7	17	28.3	4	9.3	12	27.3	11	35.5	49	24.5
Divided Loyalty(ABAB)	4	18.2	7	11.7	16	37.2	8	18.2	7	22.6	42	21
Unstable Loyalty (AABB)	6	27.3	16	26.7	8	18.6	10	22.7	3	9.7	43	21.5
No Loyalty (ABCD)	7	31.8	20	33.3	15	34.9	14	31.8	10	32.3	66	33
Total	22	100	60	100	43	100	44	100	31	100	200	100

Source: Field survey 2010



(Figure no 13)

4.3.3 (a) Income and Brand Loyalty on Mineral water Chi square Test

H₀: There is no effect on income on the brand loyalty.

Table; no 26

Chi square calculation of Income and Brand Loyalty

Level of significance	0.05
Number of row	4
Number of column	5
Degree of freedom	12
Tabulated value	21.02606
Chi square test statistic	17.68551

Since chi square (χ^2) test statistic (17.68551) is less than chi square (χ^2) tabulated (21.026) value, the null hypothesis is accepted. Hence there is no significant difference in any income group on brand loyalty.

4.3.4 Income and Brand Loyalty: Toothpaste

Under this topic brand loyalty of respondents on specific brand of toothpaste are analyzed with the help of frequency table and bar chart according to their monthly household income.

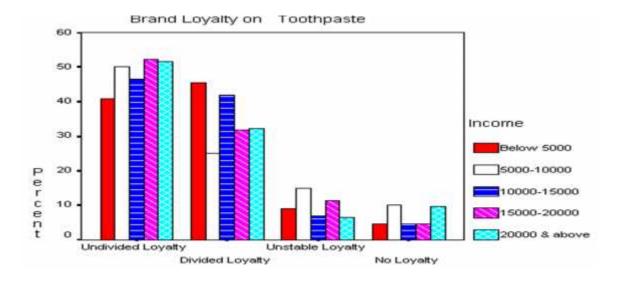
Table: no 27

Income and Brand Loyalty: Toothpaste

Brand loyalty	Monthly Hou	Total				
	Below 5000	5000-	10000-	15000-	20000	
		10000	15000	20000	and	
					above	

	No.	%	No	%	N	%	No.	%	N	%	No.	%
			•		0.				0.			
Undivided	9	44.9	30	50	20	46.5	23	52.3	16	51.6	98	49
Loyalty (AAAA)												
Divided	10	45.5	15	25	18	41.9	14	31.8	10	32.6	67	33.5
Loyalty(ABAB)												
Unstable Loyalty	2	9.1	9	15	3	7	5	11.4	2	6.5	21	10.5
(AABB)												
No Loyalty	1	4.5	6	10	2	4.7	2	4.5	3	9.7	14	7
(ABCD)												
Total	22	100	60	100	43	100	44	100	31	100	200	100

Source field survey 2010



(Figure no 14)

monthly income, 40.9 percent are strongly loyal, 45.5 percent are divided loyal, 9.1 percent are unstable loyal and 4.5 percent are non loyal on specific brand of Toothpaste. Similarly, among 60 respondents having monthly household income 5000-10000, the percentage of strongly loyal person is 50, and percentage of dividedly loyal person is 25. Unstable and non-loyal respondents of this income group are 15 and 10 percent respectively. Among 43 respondents of income category 10000- 15000, the

In the above table and chart we can see that among 22 respondents having bellow 5000

percentage of undivided, divided, unstable and non-loyal respondents are 46.5, 41.9,

7.0, and 4.7 respectively. Similarly among 44 respondents of 15000-20000 income

categories, 52.3 percent are strongly loyal, 31.8 percent are dividedly loyal, and 11.4

percent are unstable loyal and 4.5 percent are non loyal. Among 31 respondents having

more than 20000 monthly household income, 51.6 percent are strongly loyal, 32.3

percent are dividedly loyal, 6.5 percent are unstable loyal and 9.7 percent are non loyal

on purchasing any specific brand of Toothpaste.

4.3.4 (a) Income and Brand Loyalty on Toothpaste Chi square Test

H₀: There is no effect on income on the brand loyalty.

Table :no 28

74

Chi square calculation of Income and Brand Loyalty

Level of significance	0.05
Number of row	4
Number of column	5
Degree of freedom	12
Tabulated value	21.02606
Chi square test statistic	7.854536

Since chi square (χ^2) test statistic (7.854536) is less than Chi square (χ^2) tabulated (21.0260) Value, the null hypothesis is accepted. Hence, there is no significant difference in any income group on brand loyalty.

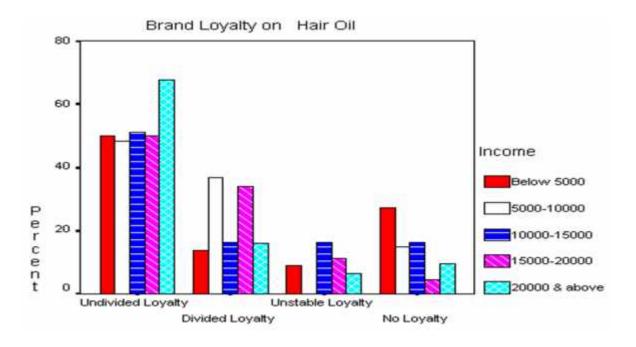
4.3.5 Income and Brand Loyalty: Hair Oil

There are varieties brand of hair oil available in the market in different retail price. This topic attempts to analyze the use of hair oil by respondents according to their monthly household income.

Table: no 29
Income and Brand Loyalty on Hair Oil

Brand loyalty	Monthly Household Income					Total						
	Belo	ow	5000-		10000-		15000-		20000			
	500	0	100	00	150	00	2000	00	and			
									abov	⁄e		
	N	%	No	%	N	%	No	%	No.	%	No.	%
	0				0							
Undivided	11	50	29	48.3	22	51.2	22	50	21	67.7	105	52.5
Loyalty (AAAA)												
Divided	3	13.6	22	36.7	7	16.3	15	34.1	5	16.1	52	26
Loyalty(ABAB)												
Unstable	2	9.1	0	0	7	16.3	5	11.4	2	6.5	16	8
Loyalty (AABB)												
No Loyalty	6	27.3	9	15	7	16.3	2	4.5	3	9.7	27	13.5
(ABCD)												
Total	22	100	60	100	43	100	44	100	31	100	200	100

Source: Field survey 2010



(Figure no 15)

The table presented above shows that majority respondent of all defined income group falls in strongly loyal category. 50 percent respondents of below 5000 income group, 48.3% respondents of 5000-10000 income group, 51.2 percent respondents of 10000-15000 income group, 50 percent respondents of 15000-20000 income group and 67.7 percent respondents of 20000 and above income group falls in this (strongly loyal) category. Total percentage of dividedly loyal respondents is 26 whereas unstably loyal respondents are only 8 percent in total. Non loyal respondents constitute 13.5 percent of total respondents. It is remarkable that non-loyal respondents are highest in below 5000 income group whereas strongly loyal respondents are highest in 20000 and above income group.

4.3.5 (a) Income and Brand Loyalty on Hair oil Chi square Test

 H_0 : There is no effect on income on the brand loyalty.

Table: no 30

Chi square calculation of income and brand loyalty

Level of significance	0.05
Number of row	4
Number of column	5
Degree of freedom	12
Tabulated value	21.02606
Chi square test statistic	26.33106

Since chi square (χ^2) test statistic (26.33106) is more than chi square (χ^2) tabulated (21.0260) Value, the null hypothesis is rejected. Hence, there is significant difference in

income group on brand loyalty. That means level of income effects the brand loyalty on hair oil.

4.4 Factors Causing Brand Switching

It has been already presented in various table and chart that the number of respondent who are strongly loyal in the specific brand of any product is very low. People switch brand for many purposes. In this topic, it is attempted to find out the causes of brand switching in different products. Respondents were asked the question." Which one of the following factors makes you leave one brand and switch to other?" The factors provided with the question are:-

- i) Price off
- ii) Advertising
- iii) A desire to test new brand
- iv) Others

Others, includes factors like quality, test, sent, smell, availability, health, conscious, from friends and recommendation, purity, suitability fairness, availability near by soap etc.

To analyze the factors causing brand switching, undividedly loyal (AAAA), dividedly loyal (ABAB) and unstable loyal (AABB) respondents are grouped as brand loyal respondents and rests are defined as non brand loyal respondent The response of the respondents on the question is presented in the table 31.

Table: no 31
Factors Causing Brand Switching

Name of	Factors	Brand loyal	%	Non brand	%	Total	%

Product				loyal			
Soap	Price off	47	23.5	8	4	55	27.5
	Advertising	56	28	17	8.5	73	36.5
	Desire to test new product	22	11	5	2.5	27	13.5
	Others	39	19.5	6	3	45	22.5
		164		36		200	
			82		18		100
Shampoo	Price off	39	19.5	14	7	53	26.5
	Advertising	62	31	16	8	78	39
	Desire to test new product	26	13	3	1.5	29	14.5
	Others	36	18	4	2	40	20
		163		37		200	
			81.5		18.5		100
Mineral water	Price off	40	20	19	9.5	59	29.5
	Advertising	44	22	23	11.5	67	33.5
	Desire to test new product	19	9.5	10	5	29	14.5
	Others	31	15.5	14	7	45	22.5
		134		66		200	
			67		33		100
Toothpaste	Price off	73	36.5	25	12.5	98	49
	Advertising	54	27	13	6.5	67	33.5
	Desire to test new product	18	9	3	1.5	21	10.5
	Others	12	6	2	1	14	7
		157		43		200	
			78.5		21.5		100
Hair oil	Price off	79	39.5	26	13	105	52.5

Adve	ertising	46	23	6	3	52	26
Desi	ire to test new product	14	7	2	1	16	8
Othe	ers	19	9.5	8	4	27	13.5
		158		42		200	
			79		21		100

The table shows that advertisement is the most effective factor for switching brand of soap. 36.5 percent (28 % brand loyal and 8.5 % non brand loyal) respondents responded that advertising is the factor that inspires them to leave the one brand and switch on another brand of soap. Similarly, 39 percent (31 % brand loyal and 8 % nonbrand loyal) respondents of shampoo are affected by advertisement to switch the brand. Advertising has effected dominantly for brand switching in the product mineral water too. 33.5 percent (22% brand loyal and 11.5% non loyal) respondents are found to be affected by advertising campaign to switch the brand of mineral water. However, in the case of toothpaste and hair oil, most of the respondents are affected by the price activities to switch another brand of the product. 49 percent respondents (36.5% brand loyal and 12.5% non loyal respondents) responded that they are highly impressed by the price activities to leave one brand and switch to other brand of toothpaste. Similarly, 52.5 percent respondents (39.5% are brand loyal and 13% non loyal) are found to be affected by price activities to switch their favorite brand of hair oil. 33.5 percent (27% brand loyal and 6.5% non loyal) respondents of toothpaste and 26 percent (23% brand loyal and 3% non loyal) respondents of hair oil are inspired by advertisement to leave one brand and switch to other. 27.5 percent (23.5%brand loyal and 4% non loyal) respondents of soap, 26.5 percent (19.5% brand loyal and 7% non loyal) respondents of shampoo and 29.5 percent (20% brand loyal and 9.5% non loyal) respondents of mineral water are affected by price activities (price off) for brand switching. In the same way,

13.5 percent, (11% loyal and 2.5% non loyal) respondents of soap, 26.5 percent (19.5% loyal and 7% non loyal) respondents of shampoo, 14.5 percent (9.5% loyal and 5% non loyal) respondents of mineral water, 10.5 percent (9% loyal and 1.5% non loyal) respondents of toothpaste and 8 percent (7% loyal and 1% non loyal) respondents of hair oil responded that they were motivated to switch the brand because of a desire to use new product. In addition, rest of the respondents have others reason for brand switching.

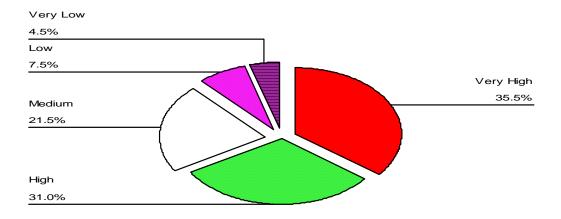
4.5 Effects of Incentives in Brand Choice

Table: no 32
Effects of Incentives in Brand Choice

Effects of incentives	Frequency	Percent
Very High	71	35.5
High	62	31.0
Medium	43	21.5
Low	15	7.5
Very Low	9	4.5
Total	200	100.0

Source: field survey 2010

Effects of Insentives in Brand choice



(Figure no 16)

The table and chart presented above shows that most of respondents or consumers are affected by incentives like free goods, price off etc. 35.5 percent of respondents responded that those incentives very highly effects in brand choice. Similarly, 31 percent of respondent replied that the effect is high, 21.5 percent of respondents have opinion that those incentives have medium effect in brand choice. Very few respondents (7.5% and 4.5% respectively) responded that the effects of the incentives are low and very low. According to response received from consumer we can conclude that majority of consumer are effected by incentives like free sample, price off, free coupon, prize, bumper, discount etc. for brand choice.

5.2 Conclusions

Following conclusion are deducted from the study

- Consumers of Kathmandu give high importance to brand. They purchase the products based on brand.
- Most of consumers have good knowledge about all the brands available in the market.
- Brand loyalty varies also product to product and loyalty towards brand is relatively higher in the product that is more frequently needed as compared to those needed or used less frequently.
- Brand loyalty varies consumer to consumer. Some consumers are more brands loyal than other and vice versa.
- No relation between consumers age and brand loyalty was established.
- Only in case of mineral water, male and female are varies in loyalty.
- In case of hair oil, higher income group is more loyal on brand.

- Most of respondent are influenced by incentive for their brand choice.
- Most of consumers of Kathmandu are found undividedly loyal in specific brand of chosen products categories except mineral water.
- Greater percentages of consumer switch the brand in cause of advertising.

5.3 Recommendations

Following recommendations are made based on findings of the study.

- Particular attention should be given in branding the product, Brand is necessary in almost all type of product.
- Brand should be distinctive or unique in every type of product. The distinct brand will be very much helpful to differentiate the desire product of the consumer from the other products.
- Studies on brand loyalty should be made on continuously. Most of consumer showing brand loyalty indicates towards hidden assets of the manufactures or sellers. They should have knowledge of these valuable assets. It will give them effective guideline for developing successful marketing strategy.
- The product line of the same brand should be increased according to preference of consumers. So that brand switching is discouraged. The quality of product should also be maintained.

The following recommendations are made for the future researchers:

- Sample size should be larger. Products chosen for the study under brand loyalty are those, which are purchased regularly and repeatedly, and population using such products is very large, therefore small of sample cannot accurately resemble the population.
- The product to be included in the study should be having diversified nature so that each of them represents as many types of product as possible.
- The questionnaire used in study should be as short and simple as possible.
- Effective statistical tools should be used to analyze and interpret collected data.

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Questionnaires

Please tick ($\sqrt{ }$) in the answer for which you agree with.

Respondent profile

A	g	ϵ
1 L	<	·

1 1 50	
10-15	
15-20	
20-25	
25-30	
30 and above	

a		
Sex	Male	Female

Educational qualification

Monthly household income

Below 5000	
5000-10000	
10000-15000	
15000-20000	
20000 and above	

- 1) What products you regularly use?
 - b. Toothpaste
 - c. Soap
 - d. Shampoo
 - e. Mineral water
 - f. Hair oil
- 1.1) For product soap
- a) Which soap do you use for bathing purpose?
- i)Liril ii)Lux iii)Dettol iv)Others
- B) Which brand did you buy in last four purchases?
- c) What do you do if your favorite brand is not available?
 - i) Wait for favorite
- ii) Buy the alternative
- 1.2 For product Shampoo:-
- a) Which Shampoo do you use for bathing purpose?

i)Clinic plus	ii)Dabour vatica	
iii)sunsilk	iv) Others	
b) Which brand did you buy in last		1)
1)		
ii) Buy the alternative		
1.3 For product Mineral Water a) Which mineral water do you drir i)Aqua ii)Bisle iii)H ₂ O	ery	
 b) Which brand did you buy in last 1)	3)	4)
1.4 For product Toothpastea) Which Toothpaste do you use foi) Pepsodentiv) Others	r the purpose of lubrication ii)Close-up	? iii)Brighter
b) Which brand did you buy in last 1)		4)
c) What do you do if your favoritei) Wait for favorite		,
ii) Buy the alternative1.5 For product Hair Oila) Which hair oil do you use?		
i) Dabour	ii) Hair and care	
iii)Clean-up	iv) Others	
b) Which brand did you buy in last1)	3)	4)
2. Which of the following factors wanted to buy) and switch o t a	<u> </u>	rite brand (The brand you
Soap		
a) Price offb) Advertisement campaign.		
o) Auvernsement campaign.		

c) A desire to test new product d) Others
Shampoo a) Price off b) Advertisement campaign. c) A desire to test new product d) Others
Mineral water a) Price off b) Advertisement campaign. c) A desire to test new product d) Others
Toothpaste a) Price off b) Advertisement campaign. c) A desire to test new product d) Others
Hair oil a) Price off b) Advertisement campaign. c) A desire to test new product d) Others
a) Very high b) High c) Medium d) Low e) Very Low. Thanks for your kind response.

_

ANNEX 2

COMPUTATION OF CHI SQUARE

Chi-square (χ^2) test is calculated in the following steps.

Step I: formulation of hypothesis

H₀: Null hypothesis

H₁: Alternative hypothesis

Step II: Set $\alpha = 0.05$

v = (r-1)(c-1)

Table value of $\chi^2_{0.05,(c-1)(r-1)} = \chi^2_{\text{table value}}$

Calculation of Expected frequency:- $\frac{(RowTota) \times (ColumnTotb)}{GrandTotal}$

Step III: Compute
$$\chi^2 = \sum_{E} \frac{(O-E)^2}{E}$$

1 Sex and Brand Loyalty

1. A. Computation of Chi- square (χ^2) , Sex and Brand Loyalty on soap

Observed	Expected			
frequency	frequency	(O-E)	$(O-E)^2$	$(O-E)^2/E$
25	29.5	-4.5	20.25	0.686441
32	34.5	-2.5	6.25	0.181159
19	18	1	1	0.055556
24	18	6	36	2
34	29.5	4.5	20.25	0.686441
37	34.5	2.5	6.25	0.181159
17	18	-1	1	0.055556
12	18	-6	36	2
				5.846311

1.B computation of Chi- square (χ^2), Sex and Brand Loyalty on Shampoo

Observed	Expected				
frequency	frequency	(O-E)		$(O-E)^2$	$(O-E)^2/E$
33	36.5		-3.5	12.25	0.335616
31	30		1	1	0.033333
14	15		-1	1	0.066667
22	18.5		3.5	12.25	0.662162
40	36.5		3.5	12.25	0.335616
29	30		-1	1	0.033333
16	15		1	1	0.066667
15	18.5		-3.5	12.25	0.662162
					2.195557

1.C. Computation of Chi- squire (χ^2) , Sex and Brand Loyalty on mineral water

on mineral w	atei			
Observed	Expected			
frequency	frequency	(O-E)	$(O-E)^2$	$(O-E)^2/E$
20	24.5	-4.5	20.25	0.826531
26	21	5	25	1.190476
14	21.5	-7.5	56.25	2.616279
40	33	7	49	1.484848
29	24.5	4.5	20.25	0.826531
16	21	-5	25	1.190476
29	21.5	7.5	56.25	2.616279
26	33	-7	49	1.484848
				12.23627

1.D. Computation of Chi- square (χ^2), Sex and Brand Loyalty on Toothpaste

Observed	Expected				
frequency	frequency	(O-E)	$(O-E)^2$	$(O-E)^2/E$	
50	49	1	1		0.020408
35	33.5	1.5	2.25		0.067164
12	10.5	1.5	2.25		0.214286
3	7	-4	16		2.285714
48	49	-1	1		0.020408
32	33.5	-1.5	2.25		0.067164
9	10.5	-1.5	2.25		0.214286
11	7	4	16		2.285714
					5.175145

1.E. Computation of Chi- squire (χ^2) , Sex and Brand Loyalty on Hair oil

Observed	Expected			
frequency	frequency	(O-E)	$(O-E)^2$	$(O-E)^2/E$
49	52.5	-3.5	12.25	0.233333
24	26	-2	4	0.153846
12	8	4	16	2
15	13.5	1.5	2.25	0.166667
56	52.5	3.5	12.25	0.233333
28	26	2	4	0.153846
4	8	-4	16	2
12	13.5	-1.5	2.25	0.166667
				5.107692

2. Age and Brand Loyalty.2. A. Computation of Chi square (Age and Brand Loyalty on soap)

. Compatatio	n or em squ	are (1150 i	and Drane	Loyalty on soup)
Observed	Expected			
frequency	frequency	(O-E)	$(O-E)^2$	$(O-E)^2/E$
8	11.2	-3.2	10.24	0.914286
12	13.1	-1.1	1.21	0.092366
7	8.8	-1.8	3.24	0.368182
11	6.8	4.2	17.64	2.594118
18	17.7	0.3	0.09	0.005085
20	20.7	-0.7	0.49	0.023671
11	10.8	0.2	0.04	0.003704
11	10.8	0.2	0.04	0.003704
17	16.5	0.5	0.25	0.015152
20	19.3	0.7	0.49	0.025389
10	10.1	-0.1	0.01	0.00099
9	10.1	-1.1	1.21	0.119802
16	13.6	2.4	5.76	0.423529
17	15.9	1.1	1.21	0.076101
8	8.3	-0.3	0.09	0.010843
5	8.3	-3.3	10.89	1.312048
				5.988969

2. B. Computation of Chi square (Age and Brand Loyalty on Shampoo)

Observed	Expected			
frequency	frequency	(O-E)	$(O-E)^2$	$(O-E)^2/E$
16	13.9	2.1	4.41	0.317266
10	11.4	-1.4	1.96	0.17193
3	5.7	-2.7	7.29	1.278947
9	7	2	4	0.571429
22	21.9	0.1	0.01	0.000457
14	18	-4	16	0.888889
13	9	4	16	1.777778
11	11.1	-0.1	0.01	0.000901
21	20.4	0.6	0.36	0.017647
19	16.8	2.2	4.84	0.288095
7	8.4	-1.4	1.96	0.233333
9	10.4	-1.4	1.96	0.188462
14	16.8	-2.8	7.84	0.466667
17	13.8	3.2	10.24	0.742029
7	6.9	0.1	0.01	0.001449
8	8.5	-0.5	0.25	0.029412
				6.97469

2. C. Computation of Chi square (Age and Brand Loyalty on Mineral water)

Observed	Expected			20 yang on mineral water
frequency	frequency	(O-E)	$(O-E)^2$	$(O-E)^2/E$
7	9.3	-2.3	5.29	0.568817
9	8	1	1	0.125
6	8.2	-2.2	4.84	0.590244
16	12.5	3.5	12.25	0.98
20	14.7	5.3	28.09	1.910884
12	12.6	-0.6	0.36	0.028571
13	12.9	0.1	0.01	0.000775
15	19.8	-4.8	23.04	1.163636
16	13.7	2.3	5.29	0.386131
6	11.8	-5.8	33.64	2.850847
13	12	1	1	0.083333
21	18.5	2.5	6.25	0.337838
6	11.3	-5.3	28.09	2.485841
15	9.7	5.3	28.09	2.895876
11	9.9	1.1	1.21	0.122222
14	15.2	-1.2	1.44	0.094737
				14.62475

2. D. Computation of Chi square (Age and Brand Loyalty on Toothpaste)

				<u> </u>
Observed	Expected			
frequency	frequency	(O-E)	$(O-E)^2$	$(O-E)^2/E$
16	18.6	-2.6	6.76	0.363441
12	12.7	-0.7	0.49	0.038583
4	4	0	0	0
6	2.7	3.3	10.89	4.033333
32	29.4	2.6	6.76	0.229932
17	20.1	-3.1	9.61	0.478109
7	6.3	0.7	0.49	0.077778
4	4.2	-0.2	0.04	0.009524
29	27.4	1.6	2.56	0.093431
16	18.8	-2.8	7.84	0.417021
7	5.9	1.1	1.21	0.205085
4	3.9	0.1	0.01	0.002564
21	22.5	-1.5	2.25	0.1
22	15.4	6.6	43.56	2.828571
3	4.8	-1.8	3.24	0.675
0	3.2	-3.2	10.24	3.2
				12.75237

2. E. Computation of Chi square (Age and Brand Loyalty on Hair Oil)

	Expected			
Observed	frequency			
frequency		(O-E)	$(O-E)^2$	$(O-E)^2/E$
17	20	-3	9	0.45
9	9.9	-0.9	0.81	0.081818
5	3	2	4	1.333333
7	5.1	1.9	3.61	0.707843
30	31.5	-1.5	2.25	0.071429
17	15.6	1.4	1.96	0.125641
4	4.8	-0.8	0.64	0.133333
9	8.1	0.9	0.81	0.1
25	29.4	-4.4	19.36	0.658503
20	14.6	5.4	29.16	1.99726
6	4.5	1.5	2.25	0.5
5	7.6	-2.6	6.76	0.889474
33	24.2	8.8	77.44	3.2
6	12	-6	36	3
1	3.7	-2.7	7.29	1.97027
6	6.2	-0.2	0.04	0.006452
				15.22536

3. Income and Brand Loyalty

3. A. Computation of Chi square (Income and Brand Loyalty on Soap)

Observed	Expected			**
frequency	frequency	(O-E)	$(O-E)^2$	$(O-E)^2/E$
5	6.5	-1.5	2.25	0.346154
12	7.6	4.4	19.36	2.547368
3	4	-1	1	0.25
2	4	-2	4	1
20	17.7	2.3	5.29	0.29887
20	20.7	-0.7	0.49	0.023671
13	10.8	2.2	4.84	0.448148
7	10.8	-3.8	14.44	1.337037
10	12.7	-2.7	7.29	0.574016
11	14.8	-3.8	14.44	0.975676
8	7.7	0.3	0.09	0.011688
14	7.7	6.3	39.69	5.154545
13	13	0	0	0
15	15.2	-0.2	0.04	0.002632
7	7.9	-0.9	0.81	0.102532
9	7.9	1.1	1.21	0.153165
11	9.1	1.9	3.61	0.396703
11	10.7	0.3	0.09	0.008411
5	5.6	-0.6	0.36	0.064286
4	5.6	-1.6	2.56	0.457143
				14.15205

3. B. Computation of Chi square (Income and Brand Loyalty on Shampoo)

Observed	Expected			
frequency	frequency	(O-E)	$(O-E)^2$	$(O-E)^2/E$
6	8	-2	4	0.5
7	6.6	0.4	0.16	0.024242
1	3.3	-2.3	5.29	1.60303
8	4.1	3.9	15.21	3.709756
28	21.9	6.1	37.21	1.699087
16	18	-2	4	0.222222
6	9	-3	9	1
10	11.1	-1.1	1.21	0.109009
17	15.7	1.3	1.69	0.107643
14	12.9	1.1	1.21	0.093798
5	6.5	-1.5	2.25	0.346154
7	8	-1	1	0.125
12	16.1	-4.1	16.81	1.044099
15	13.2	1.8	3.24	0.245455
12	6.6	5.4	29.16	4.418182
5	8.1	-3.1	9.61	1.18642
10	11.3	-1.3	1.69	0.149558
8	9.3	-1.3	1.69	0.18172
6	4.6	1.4	1.96	0.426087
7	5.7	1.3	1.69	0.296491
				17.48795

3. C. Computation of Chi square (Income and Brand Loyalty on Mineral water)

Observed	Expected	(O-	· ·	ity on winerar water)
frequency	frequency	E)	$(O-E)^2$	$(O-E)^{2/}E$
5	5.4	-0.4	0.16	0.02963
4	4.6	-0.6	0.36	0.078261
6	4.7	1.3	1.69	0.359574
7	7.3	-0.3	0.09	0.012329
17	14.7	2.3	5.29	0.359864
7	12.6	-5.6	31.36	2.488889
16	12.9	3.1	9.61	0.744961
20	19.8	0.2	0.04	0.00202
4	10.5	-6.5	42.25	4.02381
16	9	7	49	5.444444
8	9.2	-1.2	1.44	0.156522
15	14.2	0.8	0.64	0.04507
12	10.8	1.2	1.44	0.133333
8	9.2	-1.2	1.44	0.156522
10	9.5	0.5	0.25	0.026316
14	14.5	-0.5	0.25	0.017241
11	7.6	3.4	11.56	1.521053
7	6.5	0.5	0.25	0.038462
3	6.7	-3.7	13.69	2.043284
10	10.2	-0.2	0.04	0.003922
				17.68551

3. D. Computation of Chi square (Income and Brand Loyalty on Toothpaste)

Observed	Expected	(=======		O-
frequency	frequency	(O-E)	$(O-E)^2$	$E)^2/E$
9	10.8	-1.8	3.24	0.3
10	7.4	2.6	6.76	0.913514
2	2.3	-0.3	0.09	0.03913
1	1.5	-0.5	0.25	0.166667
30	29.4	0.6	0.36	0.012245
15	20.1	-5.1	26.01	1.29403
9	6.3	2.7	7.29	1.157143
6	4.2	1.8	3.24	0.771429
20	21.1	-1.1	1.21	0.057346
18	14.4	3.6	12.96	0.9
3	4.5	-1.5	2.25	0.5
2	3	-1	1	0.333333
23	21.6	1.4	1.96	0.090741
14	14.7	-0.7	0.49	0.033333
5	4.6	0.4	0.16	0.034783
2	3.1	-1.1	1.21	0.390323
16	15.2	0.8	0.64	0.042105
10	10.4	-0.4	0.16	0.015385
2	3.3	-1.3	1.69	0.512121
3	2.2	0.8	0.64	0.290909
				7.854536

3. E. Computation of Chi square (Income and Brand Loyalty on Hair Oil)

	tion of Cni squa		Draild Loya	
Observed frequency	Expected frequency	(O-E)	$(O-E)^2$	$(O-E)^2/E$
11	11.6	-0.6	0.36	0.031034
3	5.7			
		-2.7	7.29	1.278947
2	1.8	0.2	0.04	0.022222
6	3	3	9	3
29	31.5	-2.5	6.25	0.198413
22	15.6	6.4	40.96	2.625641
0	4.8	-4.8	23.04	4.8
9	8.1	0.9	0.81	0.1
22	22.6	-0.6	0.36	0.015929
7	11.2	-4.2	17.64	1.575
7	3.4	3.6	12.96	3.811765
7	5.8	1.2	1.44	0.248276
22	33.1	-11.1	123.21	3.722356
15	11.4	3.6	12.96	1.136842
5	3.5	1.5	2.25	0.642857
5	5.9	-0.9	0.81	0.137288
21	16.3	4.7	22.09	1.355215
5	8.1	-3.1	9.61	1.18642
2	2.5	-0.5	0.25	0.1
3	4.2	-1.2	1.44	0.342857
				26.33106