

Formulating Buying Behavior Based Design Strategies for Equity and Purchase Decisions of Personal Care Products

A Thesis Submitted in Partial Fulfilment of the Requirements

for the Degree of

Doctor of Philosophy

by

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October 2020



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Dedicated to Prof. Pradeep G. Yammiyavar (IIT Guwahati), Dr. Stevan Jones (P&G), Prof. P. C. Pandey (IIT Bombay), and all my beloved teachers at IIT Guwahati, IIT Bombay, College of Engineering Kidangoor, and St. Sebastian's Higher Secondary School Kadanad.

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DECLARATION

I hereby declare that the work contained in this thesis entitled "**Formulating Buying Behavior Based Design Strategies for Equity and Purchase Decisions of Personal Care Products**" is my own work done under the supervision of Professor Pradeep G. Yammiyavar, at the Department of Design, Indian Institute of Technology Guwahati (IITG), Assam and Dr. Stevan Jones, at Procter & Gamble Singapore. I hereby declare that to the best of my knowledge; it contains no materials previously published or written by another person, or a substantial proportion of material which have been accepted for the award of any other degree or diploma at IITG or any other educational institute, except where due acknowledgment is made in this thesis. Any contribution made to the research made by others, with whom I have worked at IITG or elsewhere, is explicitly acknowledged in the thesis. I also hereby declare that the intellectual content of this thesis is the product of my own work, and as per general norms of reporting research findings, due acknowledgments have been made wherever the research findings of other researchers have been cited in this thesis.

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CERTIFICATE

This is to certify that the work contained in this thesis entitled "**Formulating Buying Behavior Based Design Strategies for Equity and Purchase Decisions of Personal Care Products**" submitted by Mr. Toney Sebastian to the Indian Institute of Technology Guwahati, Assam (India) for the award of the degree of Doctor of Philosophy has been carried out under my supervision. This work has not been submitted elsewhere for the award of any other degree or diploma.

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Acknowledgments

First and foremost, I would like to thank my Ph.D. supervisor Professor Pradeep G. Yammiyavar, for his guidance, mentorship, and inspirations throughout the completion of this thesis. It has been an honor to be his Ph.D. student. He inspired me to pursue research and has nurtured me as a researcher. I appreciate all his contributions of time and ideas to make my Ph.D. experience very fruitful. I also thank my external Ph.D. supervisor (P&G), Dr. Steven Jones. He was incredibly supportive and a huge enabler for completing my dream of pursuing Ph.D. research. His guidance, support, coaching, and mentorship helped me tremendously in my study and career.

My sincere thanks to the doctoral committee, Dr. Sougata Karmakar, Prof. Uday Shanker Dixit, Dr. Prasad Bokil, and Dr. Debayan Dhar, for their valuable advice, guidance, and suggestions which helped me to grow. They have shown tremendous belief in me and were always available to help, support, and guide in all possible ways.

I am thankful to all faculty and staff members of IIT Guwahati, who had helped me in every possible way they could. Special thanks to my friends Dr. Ravi Lingannavar, Dr. Sai Prasad Ojha, Angelus Koh, Shiv Kumar Verma, Satish Shivarudriah, Venkateshwarlu Varala, and Dr. Anmol Srivastava. I would also like to thank colleagues and managers at P&G, Mani Kandasammy, Shunhsiung Shih, Lisa Bartz, Lisa Hood, Kate Cope, Elizabeth Desmond, and Mint Trairatkeyoon. They helped and supported my passion for completing a Ph.D.

Lastly, I would like to thank my family for their love and encouragement. I pay my humblest sense of gratitude to my dad Mr. V. D. Devasia Kozhikottu, and my mom, Mrs. Rosamma Sebastian Kozhikottu. Huge thank you to my sister, Mrs. Tania Sebastian Kozhikottu, and my wife, Mrs. Betty George Kozhikottu, for inspiration and support in all possible ways.

Finally, I pay my sincere thanks, love, and respect to all who have helped during my doctoral thesis work.

Toney Sebastian

Abstract

This thesis investigates user behavior in product purchase, buying behavior-based design strategies for user acceptance, and user-based brand equity. Consumers in planned and impulsive buying behave differently in their process of product selection and purchasing. Product designers and marketers need to understand these differences to develop market-winning product design and commercialization strategies. A review of theoretical models such as Fogg's Behavior Model, the Theory of Planned Behavior, and the Impulsive Buying Model was conducted. Further, user studies involving qualitative and quantitative methods were performed to understand the factors influencing purchase decisions.

Using Fogg's Behavior Model as a foundation, this thesis put forward 'trigger' and 'motivation' based design strategies for products in impulsive and planned purchasing categories, respectively. Product design strategies involving package graphics design and personal customization of products were recommended for impulsive and planned purchases. Package graphic studies were performed using descriptive qualitative content analysis incorporating a designer's perspective. Further, user studies involving quantitative and qualitative methods as well as Eye Movement Recorder based study was performed to understand user perceptions. For the customization-based design strategy, an online study in the context of a planned purchase was performed. The study revealed that user motivations could be positively influenced using customization-based design strategies.

Further, a quantitative survey-based user study was conducted among Indian users to assess the role of product experience in product purchases. The study revealed that 'good usage experience' and quality of the product are the two most important factors for product purchase. Lastly, an in-context user study involving a physical laboratory store and point of sale product experience was conducted to validate the role of product experience in a user-brand relationship. The study revealed that product experience and user-based brand equity are directly related.

This thesis provides relevant insights to product designers, marketers, and academics. It contributes to multiple domains, such as product design, shopper psychology, and brand management.

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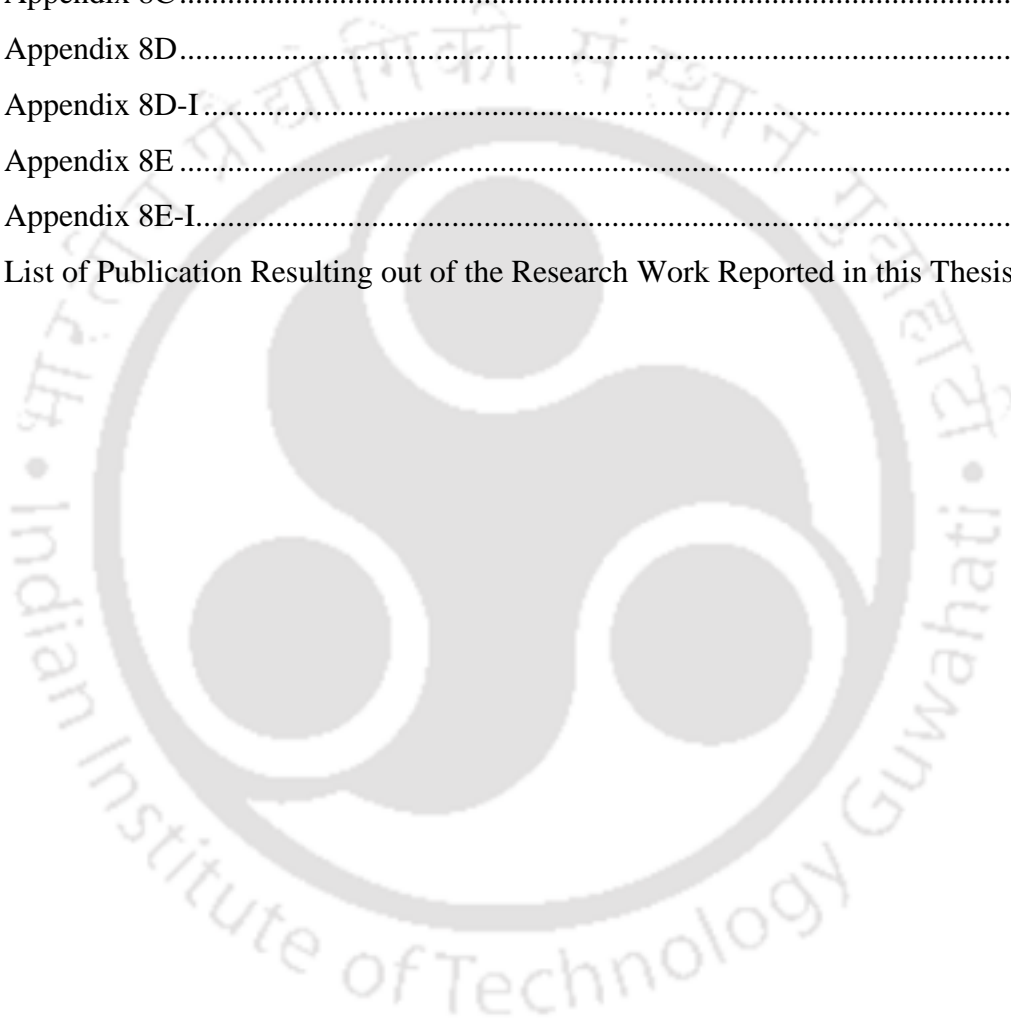
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List of Abbreviations

CPG	Consumer Packed Goods
EMR	Eye Movement Recorder
FBM	Fogg's Behavior Model
FMCG	Fast Moving Consumer Goods
IIT	Indian Institute of Technology
INR	Indian Rupee
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
UK	United Kingdom
USA	United States of America
WOM	Word of Mouth

Chapter 1

Introduction: Purchase Behavior and User-Based Brand Equity

Chapter Abstract: This chapter provides a brief overview of the thesis and the research issues it addresses. The research objective is reported, the scope and boundaries of this thesis are defined, and the terminologies associated with the research are described so that the reader is equipped to understand the research work presented in the remaining chapters.

1.1 Introduction

Companies need successful product innovations for growth and profitability (Coad et al., 2016; Slater et al., 2013). However, many product innovations are not successful (Golder & Tellis, 1993; Sok & O'Cass, 2015). Designers and marketers can produce great results by considering the users as vital entities of the market ecosystem (Jreissat et al., 2017). Designing products that provide a desirable user experience and packages that attract user attention is essential for successful product innovations.

Besides, marketing activities such as product communications that bring more users to the store also play a significant role in the market success (Fuertes-Callén & Cuéllar-Fernández, 2014). With increasing competition, companies need better responsiveness (Day, 2011). Understanding the user behavior and decision-making process would provide insights on users' thought processes behind purchase decisions, the factors influencing decision making, and the choice of buying. The study of user behavior is an extensive area. It focuses on how users make decisions to spend their money on consumption-related matters. The study of user behavior includes what the users buy, why, when, and where they buy it, how often they buy it, how the user assesses it, and how they dispose of it (Singh et al., 2014). These insights would help designers to develop strategies for designing market-winning product offerings.

An essential part of product design is understanding user behavior. Studying user behavior in product purchases has become essential for companies. User behavior understanding would provide companies with insights on target users' paths to purchase, desired product features, and decision-making. Such an understanding would help companies develop product design and commercialization strategies to make innovations

successful. With ever-increasing competition, a strong base of satisfied users is essential for success. Satisfied users would eventually become loyal users and provide substantial economic and competitive advantages (Sheena & Naresh, 2012). Loyal users would only require minimal marketing activities for repeated purchases. They would be happy to buy their preferred brands.

1.2 Understanding User Behavior in Product Purchase

User behavior in product purchases has been researched for several decades (Zhang & Benyoucef, 2016). Based on buying habits, Copeland (1923) classified products in a retail store into three categories: convenience goods, shopping goods, and specialty goods, and suggested marketing strategies based on the classification. User behavior models in psychology help predict user behavior and explain the decision making styles. Murphy and Dweck (2016) investigated how the mindset of the users shape their product preferences. They found that users with a fixed mindset are likely to seek products and brands aligned with their goals. On the other hand, users with a growth mindset seek products that help them pursue their goals. Fixed mindset users attempt self-enhancement by using distinctive and prestigious brands (Park & John, 2010).

Based on when and where the purchase decision is made, user behavior in product purchase can be classified into planned purchases and impulsive purchases (Cobb & Hoyer, 1986). Decision making in planned and impulsive purchases are expressively different (Bellini et al., 2017). Like the name indicates, planned purchases are pre-planned (Yazdanpanah & Forouzani, 2015). Piron (1993) defined planned purchase as a purchase action undertaken with a prior identified problem or a purchase intention formed before entering the shop. In a planned purchase, users have a prior identified product before entering the shop. On the other hand, impulsive purchases are unplanned (Kollat & Willett, 1967; Prasad, 1975; Suher & Hoyer, 2020). Purchase decisions in impulsive buying are driven by a sudden urge to buy when the user is at the point of sale (Steenburg & Naderi, 2020).

1.2.1 Theory of Planned Behavior

Ajzen's (1991) Theory of Planned Behavior (TPB; Figure 1.1) is a useful model for explaining planned purchase behavior (Chen & Hung, 2016). TPB integrates fundamental concepts in behavioral and social sciences and defines them to help understand and predict behaviors. TPB is an extension of the Theory of Reasoned Action

(TRA) (Ajzen & Fishbein, 1980). According to TRA, ‘intention’ is the primary cause of planned behavior (Kaiser & Scheuthle, 2003). In other words, ‘intention,’ i.e., desire to involve in a behavior, gives the best prediction of the behavior (Han & Kim, 2010). According to TRA, users are rational in decision-making. Users make a reasoned selection among the available choices (Chen & Tung, 2014). The second component of TRA is the subjective norm, a function of beliefs about the significance of social pressure and motivation to act accordingly (Al-Swidi et al., 2014).

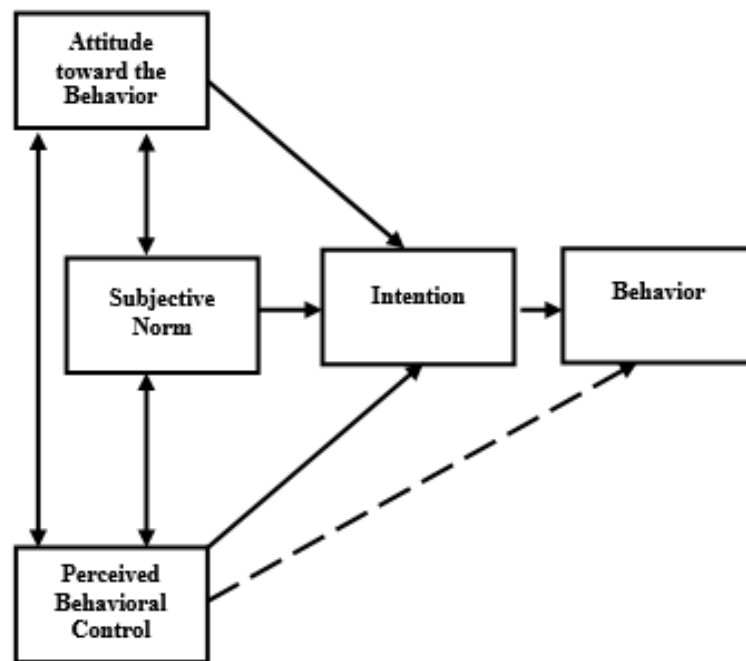


Figure 1.1: Theory of planned behavior. Adapted from Ajzen (1991).

TRA was very useful and effective in predicting and explaining rational behaviors (Han & Kim, 2010). Based on TRA, the user is most likely to perform a purchase if they have formed purchase intention for the product. TRA was transformed into TPB by including perceived behavioral control in the model, which enabled better predictions of challenging behaviors (Madden et al., 1992). Perceived behavioral control is a measure of perceived ability to perform the behavior (Dowd & Burke, 2013). According to TPB, attitude towards the behavior, the influence of relevant reference people (subjective norm), and the perceived control result in behavioral intention (Ajzen, 2006; Verma & Chandra, 2018). Behavioral intentions are the best predictors of the behavior (Maichum et al., 2016). Like in TRA, the center of planned behavior is the user's intention to perform

the behavior (George, 2004; Wu & Chen, 2014). The stronger the intention to engage in the behavior, the more likely it would occur (Kumar & Smith, 2018).

1.2.2 Impulsive Buying Behavior

Impulse buying is sudden and immediate, occurs with no pre-shopping intentions (Beatty & Ferrell, 1998). It occurs after the user experiences a spontaneous urge to buy (Muratore, 2016; Verhagen & Dolen, 2011). In impulsive buying, users buy products outside of their shopping plans (Hui et al., 2013). The likelihood of impulse purchases increases with an increase in urge (Suryawardani et al., 2017). A person's mood and shopping pleasure may also contribute to impulsive buying (Putra et al., 2017). According to Babin et al. (1994), impulse purchase occurs from hedonic or emotional motivations. Weinberg and Gottwald (1982) suggested that impulsive buying results from high emotional activation, low cognitive control, and reactive behavior. Impulsive purchases occur even when the user is not actively looking for the product and has no pre-shopping intention (Jones et al., 2003; Stern, 1962). The motivation and decision to purchase occurs after the user sees the product (Aruna & Santhi, 2015; Hoch & Loewenstein, 1991). The impulsive buying behavior model proposed by Beatty and Ferrell (1998) is presented in Figure 1.2.

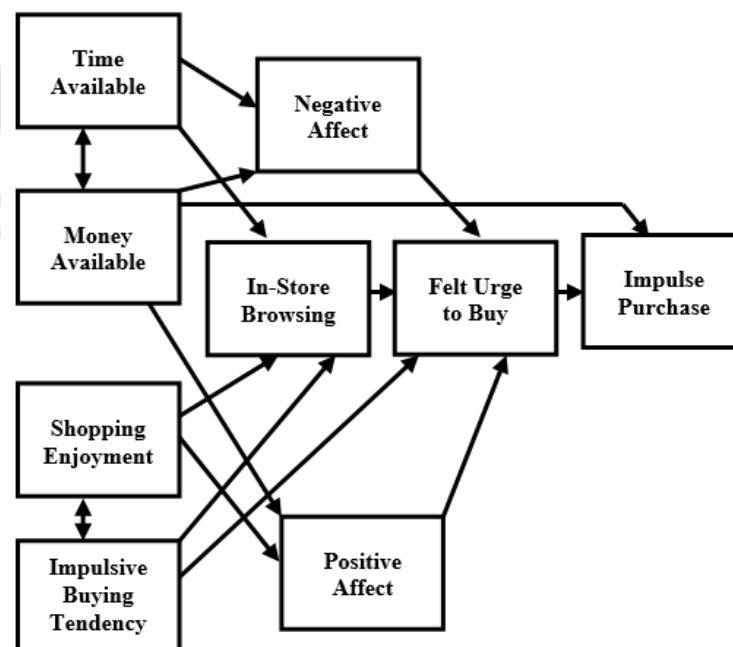


Figure 1.2: Impulsive Buying Behavior (Beatty & Ferrell, 1998).

1.2.3 Fogg's Behavior Model

Fogg's Behavior Model (FBM) is another well-known behavior model (Figure 1.3). According to FBM, 'behavior' is a product of motivation, ability, and trigger (Fogg, 2009; Fogg & Euchner, 2019). For a user to perform a behavior, the user must be sufficiently motivated, able, and triggered to perform it. The target behavior will not occur unless all three factors coincide (Guimaraes et al., 2018). Fogg's model discussed different motivators, such as pleasure/pain, hope/fear, and social acceptance/rejection. Depending on the type of motivator, user reactions may vary. The pleasure/pain motivator urges users to react to things that provide instantaneous pleasure. Hope and fear motivator triggers the user's thought process that anticipates an outcome, either good or bad. Social acceptance triggers behaviors that win social acceptance, or more importantly, avoid social rejection.

Further, Fogg's model also discusses Time, Money, Physical Effort, Brain Cycles, Social Deviance, and Non-Routine as ability elements. The behaviors requiring a higher level of ability would require a higher level of motivation. Lastly, Fogg's model also discusses elements of Triggers. A trigger tells the user to perform a behavior. If the user is above the activation threshold for motivation and ability, even a small trigger would be sufficient to perform the target behavior (Ackermann et al., 2018). If the user has a strong ability but lacks motivation, weak triggers may not be enough to perform it. In the context of a product purchase, product design could play an essential role in such scenarios. Suppose the user has sufficiently strong ability but lacks motivation. Designs with significant motivational or trigger elements could enable purchase by bringing the user above the threshold level.

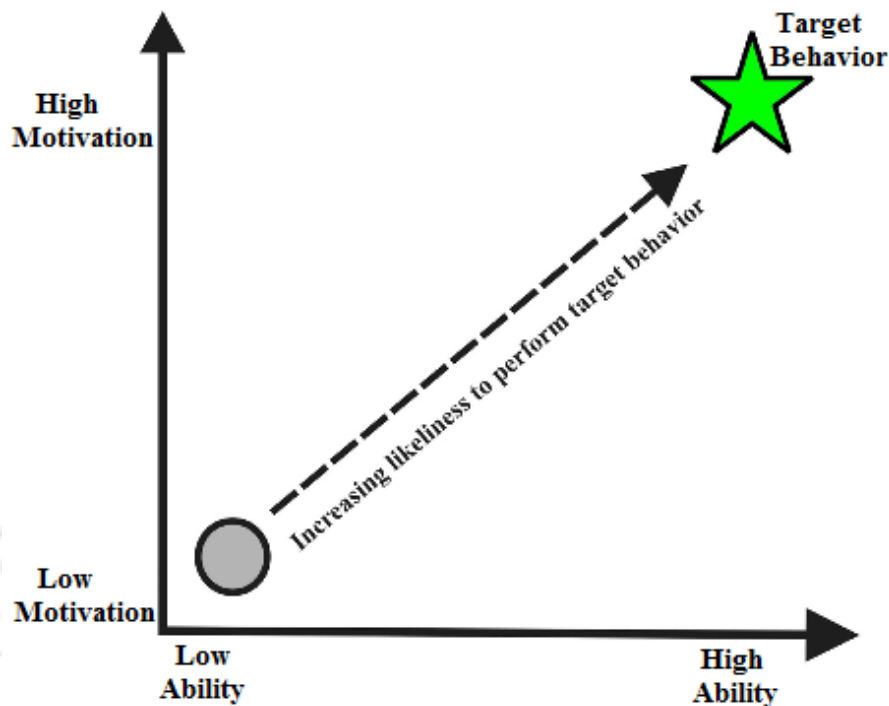


Figure 1.3: Fogg's Behavior Model. Adapted from (Fogg, 2009).

1.3 User-Based Brand Equity

Companies create and use brand equity to build user-brand relationships. Brand equity provides a measure of the brand's strength and success (Buil et al., 2013). Brand equity is a prized asset for companies (Christodoulides et al., 2015; Farjam & Hongyi, 2015). Aaker (2009) defined brand equity as a set of assets (and liabilities) associated with the brand contributing to the value proposition. They classified these assets into five categories: brand loyalty, awareness, perceived quality, brand associations, and other proprietary assets. The first four categories represent user perceptions of the brand, forming user-based brand equity (Aaker, 2009; Mohan & Sequeira, 2016). The brand equity model Aaker (2009) developed is presented in Figure 1.4.

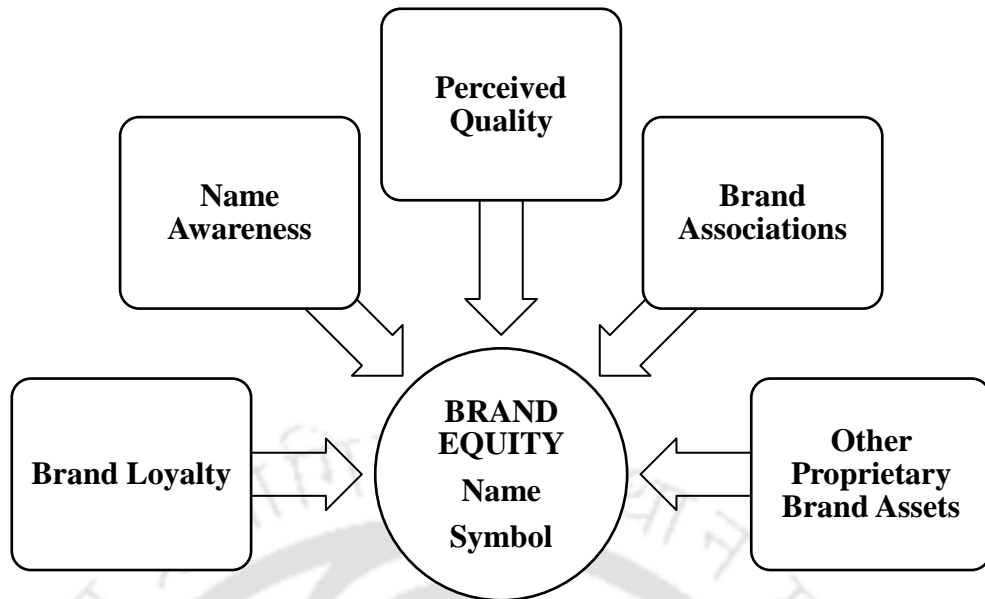


Figure 1.4: Brand Equity Model (Aaker, 2009).

Brand equity helps products obtain differential user preferences through brand identification (Chatzipanagiotou et al., 2019; Datta et al., 2017). Brands with altruistic intentions may develop social brand equity (Naidoo & Abratt, 2018). Several researchers have studied the effect of brand equity on market performance. Chi et al. (2009) suggested that brand loyalty, awareness, and perceived quality significantly affect purchase intention. Market performance of Fast-Moving Consumer Goods (FMCG) products and brand equity are positively correlated (Mohan & Sequeira, 2016). Tong and Hawley (2009) studied the effect of brand loyalty, awareness, brand association, and perceived quality of sportswear products on overall brand equity. They showed that brand loyalty and association are essential dimensions of brand equity.

Liu et al. (2017) studied luxury hotel brand users. They suggested that all four components of user-based brand equity are positively related to brand attitude. Kim et al. (2003) suggested that brand loyalty, perceived quality, and brand image are essential components of user-based brand equity. User-based brand equity also contributes to financial performances. Leckie et al. (2016) studied Australian mobile phone users and reported that user involvement and brand engagement are positively related.

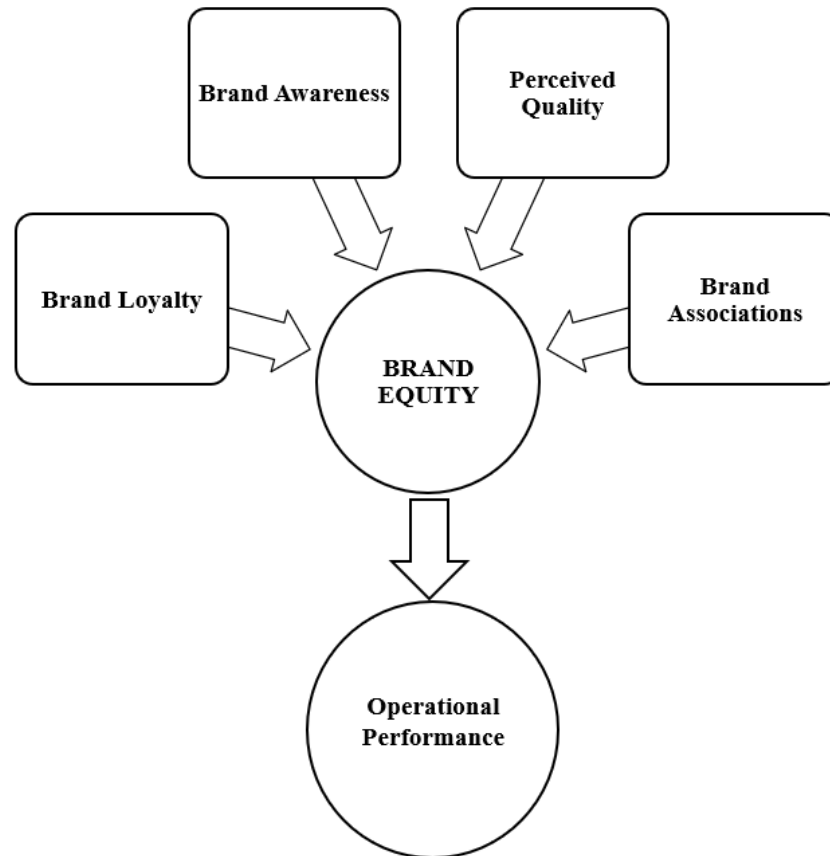


Figure 1.5: The measurement model of brand equity and operational performance. (Adapted from Mohan & Sequeira, 2016).

1.3.1 Brand Loyalty

Brand loyalty is the strong commitment of a user to consistently repurchase a preferred brand despite the influence of competing brands (Oliver, 1999; Son et al., 2010). Brand loyalty is demonstrated by the intention to purchase a preferred brand as the first choice (Yoo et al., 2000). Loyalty is the core of brand equity (Tong & Hawley, 2009). According to Aaker (1996), willingness to pay a price premium and purchase satisfaction are brand loyalty indicators. A loyal user base is a competitive advantage (Kandampully et al., 2015).

Chinomona and Maziriri (2017) studied male cosmetic users in South Africa and found that brand loyalty significantly influences purchase intention. Khraim (2011) studied female cosmetic users in Abu Dhabi, UAE, and reported that brand name strongly relates to brand loyalty. Users engaged in social media brand communities may develop positive attitudes towards the brand, loyalty, and trust (Coelho et al., 2018). Han et al.

(2018) investigated duty-free shopping at airports in South Korea. They suggested that perceived value, satisfaction, and desire have significant brand loyalty associations. Having a strong base of loyal users would help companies improve their financials (Caruana, 2002). Loyal users would only require very minimal marketing activities for repeated product purchases.

1.3.2 Brand Awareness

Brand awareness is the user's ability to recognize and recall a brand (Aaker, 1996). Brand awareness is an essential factor for purchase decisions. Users who are aware of one of the brands in the available choice tend to assess a lesser number of choices during decision making (Hoyer & Brown, 1990; Macdonald & Sharp, 2000). Building brand awareness in online social networks increases word of mouth traffic (Barreda et al., 2015). By studying Islamic bank users in Jordan, Alkhalaf et al. (2017) suggested that brand awareness and commitment are positively correlated to brand loyalty. Brand awareness has a strong influence on market results (Huang & Sarigöllü, 2012).

Sasmita and Suki (2015) examined brand equity perception of young users in Malaysia and found that brand awareness profoundly affects brand equity. Chandran et al. (2020) studied the relationship between brand awareness and brand loyalty of Ayurveda products. They found that awareness changes attitude towards the product and positively affects the use. With increasing competition, companies spend substantial effort to improve their brand awareness. Brand awareness is typically measured as the top of the mind awareness (the first brand comes to the user's mind when they hear about a category).

1.3.3 Perceived Quality

Perceived quality is the product's overall quality perception compared to potential alternatives (Pappu et al., 2006). Mejri and Bhatli (2014) found that communication of 'social quality' on private label products improved quality perception, purchase intention, and store loyalty. Perceived quality has a positive effect on brand loyalty. It mediates the effects of brand awareness on purchase intention (Chi et al., 2009). By studying retail food shoppers in Kolkata, Das (2014) showed that the perceived quality and brand loyalty positively affect purchase intention. Clavo-Porrall and Lévy-Mangin (2017) studied store brands and suggested that purchase intention is strongly influenced by quality perception.

By investigating users of eco-friendly electronic products, Marakanon and Panjakajornsak (2017) showed that perceived quality directly affects trust. Trust indirectly affects loyalty.

1.3.4 Brand Association

Aaker (2009) defined brand association as anything the user connects in the memory to a brand. Brand association is a measure of the brand's meaning to the user (Tong & Hawley, 2009). A brand association could form from associations with the product or company (Chen, 2001). Brand preferences and purchase decisions are formed when users develop unique and favorable associations (Jeon & Baeck, 2016). Brands should form good qualities inside the potential users' minds (Veloutsou & Guzmán, 2017). Brand association positively impacts brand identification and loyalty (Jin et al., 2019).

1.4 Product Design Strategies

Product design is an enabler for differential market advantages (Creusen & Schoormans, 2005; Veryzer, 1995). Innovative strategies are crucial for developing successful innovations (Goedhuys & Veugelers, 2012). The user's first interaction with a product is with the design. Hence, design can determine the user's first impression of the product (Berkowitz, 1987; Bloch, 1995). Design strategy significantly contributes to competitive advantage (Hua et al., 2011).

Recent years saw a significant increase in design-driven companies (Noble & Kumar, 2008). Changes in user behavior and attitudes demand a change in the way products are designed. The most critical step in product development is product design (Hsu, 2011). Product design includes designing the product form and functions (i.e., aesthetics and capabilities) (Kumar, 2016). Product design encompasses style, function, aesthetics, and the overall connection of these elements (Noble & Kumar, 2008). Good product design could make users love it (Yu, 2019). Users buy and consume products according to their needs, preferences, and buying power. It is essential to manage user interests in what they see and feel.

In this thesis, the term 'product design strategy' refers to a set of guidelines for the product designers (Creusen & Schoormans, 2005) to develop products that influence buying decisions.

1.5 Brand Experience

According to Schmitt (1999), experiential marketing defines users as rational and emotional beings. Marketers could create different experiences, such as sensory, affective, cognitive, physical, and social-identity experiences (Schmitt, 1999). The value of products involves functional aspects and experiential attributes (Schmitt & Zarantonello, 2013). Product experience could positively contribute to brand loyalty when users associate the experience with perceived quality (Selnes, 1993). Sensory experience drives brand love and helps develop loyalty (Huang, 2017). Brand experience has a high contribution to brand awareness (Huang & Sarigöllü, 2012). User experience, especially the first trial, is an essential factor in influencing user perception of the brand and purchase intentions (Kempf & Smith, 1998). Product experience from trial influences user assessment of brand equity (Washburn et al., 2000). Relational and emotional brand experiences contribute to happiness, improved brand loyalty, and willingness to pay a price premium (Mandil, 2016).

1.6 Broad Research Gap

Behavior models and cognitive theories provide a rich, practical understanding of human psychology. However, there exists a question on how to translate human psychology understanding to successful design strategies. If user behavior and decision making styles are known, can that be used to predict how they react to a design? Can learning be used to develop product design strategies? Can product design help build brand equity? Answering these questions would help designers and managers to connect the dots between user behavior, decision-making styles, design, and market.

Several researchers have investigated design strategies, design evaluations, and market understanding. However, there is an opportunity to research and connect the dots to develop user-winning design strategies.

1.7 Aims of the Study

Current research focuses on user behavior in consumer goods purchases. This research aims to assess the effect of product experience on product purchases and user-based brand equity. The research also aims to identify factors influencing purchase decisions and develop guidelines for product designers and marketers, especially for products like shampoos, chocolates, and alike.

1.8 Objectives

The broad objective of current research is to formulate buying behavior based product design strategies. It includes identifying factors influencing product selection in planned and impulsive buying and investigation of product design strategies. Besides, the research also investigates the role of product experience in product purchase and user-based brand equity. For achieving these broad objectives, the following sub-objectives are set.

- i. To study different types of user behavior in product purchase
- ii. To study product design strategies to influence product selection
- iii. To study various product, package, and brand-related factors influencing purchase decision making
- iv. To study the relative importance of various factors in purchase decision making
- v. To study the effects of product experience on product purchase and user-based brand equity.

The objectives of the study outlined above are relevant and address the knowledge gaps identified in the literature. They would contribute to the development of buying behavior-based design strategies. This area is well recognized as increasingly important for product designers and marketers.

1.9 Scope of the Thesis

This thesis deals with a broad area of Design Management. It spreads across disciplines such as psychology, graphic design, experiential design, user-centered product design, and brand management.

Current research argues that good user experience is the most crucial factor in establishing a robust user-brand relationship and user-based brand equity. Understanding user behavior in product purchase, especially factors influencing decision making, is the focal point of current research. Research questions are formulated around user behavior understanding and product design strategies. Details of experiments conducted along with analysis of results and conclusions inferred are reported.

1.10 Chapter Summaries

Chapter 1: Chapter one presented an overview of key concepts and terminologies explored in the thesis. Theoretical models of user behavior in product purchases were presented, and concepts like user-based brand equity, product design strategies, and brand experience were introduced. The aim and objectives of the thesis were reported, and the scope of the thesis was defined. A brief overview of the thesis structure was presented. Lastly, a summary of all the chapters in the thesis was reported.

Chapter 1-2	Chapter 3-5	Chapter 6
<ul style="list-style-type: none"> • Background and literature review • Research Objectives • Research gaps and research questions 	<ul style="list-style-type: none"> • Experiments to investigate user behavior in product purchase and design strategies • Experiments to investigate role of product experience in product purchase and user-based brand equity 	<ul style="list-style-type: none"> • Consolidated findings and Contributions from the thesis • Limitations of the research • Future scope

Figure 1.6: An overview of the thesis structure.

Chapter 2: A literature review related to user behavior in product purchase, especially planned and impulsive buying, is presented in chapter 2. A summary of the review of past reported researches on various brand, product, and package-related attributes influencing the user in purchase decisions are reported. The impact of the past investigations on product design strategies such as package graphic-based design strategies and customization are discussed in detail. Lastly, insights from the literature review and research questions are presented, together with a brief overview of the research plan.

Chapter 3: Chapter three presents the experiments conducted to develop and validate package graphic-based design strategies for shampoo products. Experiments in chapter three provide learnings on the ranking of importance of design elements needed

for successful package graphics. Lastly, a user study assessing cross-category applicability of package graphic-based design strategy is reported.

Chapter 4: Chapter four reports qualitative and quantitative user studies to identify factors influencing planned purchase decisions. User studies suggest that planned purchases are influenced by several factors, such as recommendations from family and friends, category experts, and sales consultants. Besides, the in-store presence of the brands, advertisements, brand websites, and ratings and reviews of the product also influence purchase decisions. User studies also provide insights into the relative importance of these factors. Lastly, chapter four also investigates a customization-based design strategy using sports shoes and pen categories. The study reveals that Indian users prefer customization provided the features are relevant.

Chapter 5: A quantitative user study among consumer goods buyers of the Indian market is presented in chapter five. The study provides insights into the importance of brand, product, and package attributes on product purchases. The study reveals that ‘good user experience’ and quality of the product are the essential factors users expect from consumer goods. Besides, good product user experience was also identified as one of the essential factors for repeat purchase. Further, an experiment involving in-context user studies with Physical Laboratory Store for assessing the role of product experience in user-based brand equity is also reported. The study reveals that product experience and user-based brand equity are directly correlated.

Chapter 6: Consolidated findings of the research, along with the key contributions, are reported. Future scope and limitations of the experiments are also presented.

1.11 Summary of Chapter 1

This chapter provided an overview of key concepts and terminologies explored in the thesis. An introduction to user behavior models, user-based brand equity, product design strategies, and the brand experience was presented to introduce the research problem. The aim and objectives of the research work were reported. The boundaries and scope of the research were briefly explained. A broad overview of the thesis structure was outlined, and summaries of all chapters were reported.

Chapter 2

Literature Survey and Research Plan

Chapter Abstract: A state of the art research literature review was conducted in the broad areas of user behavior in product purchase, user-based brand equity, package graphic-based design strategies, and customization-based design strategies. This chapter highlights the research gaps, raises research questions, and outlines the aims of the research.

2.1 Introduction

The research problem investigated in the thesis relates to the broad areas of user understanding and product design, which are interdisciplinary. For instance, behavioral models from cognitive psychology help to understand users' mental and motor abilities. However, sociological and cultural studies are required for developing socially and culturally acceptable products. User behavior understanding is necessary for identifying the social and practical needs of the user. Such learnings would help develop user-relevant and socially acceptable products.

In a competitive market, user preferences are influenced by varying factors. It includes product-related and brand-related factors. To be able to come up with winning product designs, it is necessary to understand what features of the product adds value to the user (Creusen & Schoormans, 2005). Therefore, understanding the factors influencing decision making is of great importance. Literature from cognitive psychology, product design, and brand management was studied to develop a foundational understanding of the research. The literature study focused on the following questions. What are the various product, package, and brand-related attributes influences the users in purchasing decisions? What is the relative importance of each of these factors? What are some of the design strategies that a product designer could use to influence purchase decisions? What are the various factors involved in building a robust user-brand relationship? What could product designers do in order to establish a long-standing user-brand relationship? Key learnings from the existing literature are reported in section 2.2 to 2.4 below.

2.2 User Behavior in Product Purchase

Over the past decades, several researchers have studied user behavior in product purchases across various categories (Duarte et al., 2013; Lee & Kacen, 2008; Ozen & Engizek, 2014; Sparks & Shepherd, 1992). With the growth and development of retailing channels, including e-commerce, user behavior has evolved (Dholakia et al., 2010; Sands et al., 2016; Verhoef et al., 2015). Purchase decision making involves three different stages: information search, purchase, and post-purchase services (Neslin et al., 2006). Advancements in information technology and the introduction of new communication methods, e.g., social media, have resulted in significant user behavior changes (Cantalops & Salvi, 2014). Based on the way decisions are made, researchers classify purchasing into planned and impulsive purchases (Cobb & Hoyer, 1986).

2.2.1 Impulsive Buying Behavior

Impulse buying is an essential source for retailers (Flamand et al., 2016). Several researchers have investigated the importance of impulsive buying behavior (Choudhary, 2014; Muruganantham & Bhakat, 2013). Abratt and Goodey (1990) studied supermarket shoppers in the United States and South Africa and suggested that in-store stimulus is vital for triggering impulsive buying. Peck and Childers (2006) assessed the influence of sensory elements on impulse-purchasing behavior and reported that individual and environmental 'touch' related factors positively impact impulse purchasing. Promotion range, social environment, and preparation time affect impulsive purchases (Yan et al., 2016). By studying FMCG users in Pakistan, Vishnu and Raheem (2013) found that price discounts stimulate impulsive purchasing. Advancements in technology, especially social media and e-commerce, increased impulsive buying behavior (Iram & Chacharkar, 2017). Hedonic shopping values significantly influence impulsive buying urge (Chung et al., 2017).

Badgaiyan and Verma (2014) conducted a study among Indian users and reported that materialism, impulsive buying tendency, and shopping enjoyment positively affect impulse purchases. Pradipto et al. (2016) studied the impulsive buying urges of young adults in Jakarta. They found that users need self-regulation to control the buying of unnecessary products. Sohn and Lee (2016) investigated tourists' behavior at duty-free shops in Seoul, Korea. They found that time pressure

during shopping results in affective impulse buying, and increased shopping involvement results in cognitive impulse buying.

Mattila and Wirtz (2008) examined the role of induced environmental stimulation on Singaporean retail outlet users. They found that perceived overstimulation has a positive effect on impulsive buying. A pleasant store environment will motivate users for unplanned purchases (Sun & Yazdanifard, 2015). Sundströma et al. (2019) studied young Swedish users and suggested that impulsive online purchasing is often motivated by boredom. Lee and Yi (2008) suggested that pleasure is a driver of impulsive purchasing.

Yu and Bastin (2010) conducted an exploratory study among Chinese users and reported that impulsive purchases are a regular phenomenon in China. Gupta (2011) conducted a study among Indian users and showed that users' bias towards foreign brands has a significant effect on materialistic values. Sofi and Nika (2017) studied users in Jammu and Kashmir. They found that cognitive dissonance has considerable effects on impulsive buying.

2.2.2 Planned Buying Behavior

The theory of planned behavior relies on the assumption that users make rational choices (Carfora et al., 2019; Wang et al., 2018). Planned purchasing has a vital role in the overall purchase behavior. Several researchers have used the Theory of Planned Behavior (TPB) to understand user behavior in the planned purchase. Using TPB, Kim and Chung (2011) suggested that environmental and appearance consciousness positively influences users' attitudes towards organic personal care products. Al-Swidi et al. (2014) conducted a study on organic food consumption. They suggested that subjective norms could significantly moderate the relationship between purchase intention and behavioral control. Yadav and Pathak (2016) reported that young Indian user's purchase intentions toward green products are driven by planned purchase behavior. Singh and Verma (2017) studied organic food purchasing of Indian users and found that health consciousness, subjective norms, knowledge, price, and availability influence the attitude.

Alam and Sayuti (2011) studied the halal food purchase of Malaysian users. They suggested that attitude towards halal food has a significant effect on purchase intention. Using TPB, Vermeir and Verbeke (2008) investigated the determinants of sustainable food consumption in Belgium. They reported that intention to consume sustainable dairy

products could be explained by the combination of personal attitudes, perceived social influences, effectiveness, and availability. Liobikienė et al. (2016) studied the green purchase behavior of users in European Union countries. They found that the subjective norms and confidence in green products significantly influence purchase behavior.

Wang et al. (2019) investigated user behavior during singles' day promotion in China and found that social influence positively affects planned purchasing. TPB robustly support the purchase intention for environmentally friendly products (Kalafatis et al., 1999). Park et al. (2007) investigated the purchase intention to buy portable multimedia players and suggested that user reviews positively affect purchase intention. Further, they also reported that the number of reviews and quality of reviews has positive effects on purchase intentions. Armitage and Conner (2001) conducted a meta-analysis-based study and reported that TPB could account for about twenty-seven percent purchase behaviors. To motivate users for the planned purchase of socially responsible products, marketers must provide more opportunities, e.g., more distribution of products (Han & Stoel, 2017).

2.3 Factors Influencing Purchase Decision Making

Various factors influence users in purchases decisions (Kotler & Keller, 2011). Users are influenced by product aesthetics, cultural, traditional, social-psychological, and economic aspects in their purchase decisions (McDonagh et al., 2002). Buying behavior is influenced by cultural, social, and societal environments (Ramya & Ali, 2016). Most of the existing research on buying behavior was tailored to mature markets (Reddy et al., 2012). There is a need to understand how users in emerging markets make purchase decisions (Khan & Mohsin, 2017).

Bellini et al. (2017) studied users in grocery shopping and found that the level of shopping preparation influences behavior at the store. They reported that users with a higher level of preparation tend to do planned purchasing. Users may also employ phased decision-making, starting with a broad set of available choices, filter them to a reduced consideration set. Users compare within the reduced set and make the final decision (Li et al., 1999). According to Kaas (1982), users forming habitual buying reduce the information search process and shift the search from product specific to brand-specific attributes.

Park et al. (2006) studied user involvement, emotion, and consumption tendency in fashion-related impulse buying of university students in the USA. They found that involvement and positive emotion influences impulsive buying. They suggested that store owners could induce positive emotion through the store, product, and package design strategies. Peck and Childers (2006) suggested that individual and environmental touch-related factors positively affect impulsive buying. Mehta and Chugan (2013) studied the users visiting shopping malls in India and found that visual merchandising elements positively influence impulse buying.

Xiang et al. (2016) studied user behavior in the social commerce platform. They reported that para-social interactions impact impulse buying tendency. Richard and Habibi (2016) studied online shoppers and found that emotions users felt after visiting a website influence their perceptions and purchase intention. Over the past few decades, several researchers have investigated the effect of various factors on user's attitudes towards brands and purchase intention. A literature review of various brand, product, and package-related attributes was performed to develop a foundational understanding of current research.

2.3.1 Brand Related Attributes

Branding means much more than a brand name. Brands of varying sizes, shapes, and other features are available for users to choose based on their preferences (Sheena & Naresh, 2012). Within the broad area of the branding, factors like brand name, advertisements, word of mouth (WOM), value for money, and country of origin are reviewed.

Brand Name: Brand name strongly affects purchase decisions (Beckley et al., 2012; Schifferstein & Hekkert, 2011). Familiar brands have a higher likelihood of getting purchased. Brand name, product quality, and advertisements positively affect purchase intention (Mirabi et al., 2015). **Brand credibility:** a collective combination of brand attractiveness, trustworthiness, and brand expertise, influences purchase intention (Wang & Yang, 2010). Brand name plays a role in brand personality (Klink, 2000; Klink & Athaide, 2012), and provides substantial value in differentiating the brands (Río et al., 2001). Online shoppers use brand familiarity as vital information for purchase decisions (Park & Stoel, 2005).

Advertisements: Attitude towards advertisements strongly influences brand equity (Buil et al., 2013). Advertisements can contribute to positive brand perceptions and higher brand awareness. The use of celebrities such as sportspersons, movie stars, and entertainers to promote products is widespread in global markets (Pornpitakpan, 2004). Celebrity credibility positively impacts brand equity (Dwivedi et al., 2015) and purchase intention (Pornpitakpan, 2004). Celebrities could also influence the user perception of the brand (Mortensen, 2014; Raut & Das, 2011), and brand personality (Aaker, 1997). Product endorsements and celebrities used in advertising can have personalities that fit those of the brands. Over time, the endorsers' personalities would be conveyed to the brand (Aaker, 1997). Users also rely on salespersons for information gathering. However, the impact of a salesperson's recommendations is low because of the monetary gain. User-oriented selling approaches of salespersons could increase user satisfaction (Goff et al., 1997). Social media marketing activities contribute to a positive attitude towards the brand and user-based brand equity (Yazdanparast et al., 2016).

Word of Mouth: Word of mouth (WOM) is a cornerstone of marketing (Lovett et al., 2013). WOM, especially opinions of family and friends and ratings and reviews, influence users' product perceptions (Honkanen & Young, 2015). Information provided by the family influences perceived quality and the formation of brand associations (Gil et al., 2007). With the growth and popularity of social media, users often rely on online friends' recommendations when making purchase decisions (Chen & Shen, 2015). Quality of WOM has a positive effect on repurchase intention (Matute et al., 2016).

The quality and quantity of online user reviews affect purchase intention (Park et al., 2007). According to their study, the number of online reviews influences users with low-involvement. The quality and quantity of reviews influence high involvement users. The use of recommendation agents in online shopping websites increases product search effectiveness, user satisfaction, and unplanned purchases (Hostler et al., 2011). Cheng and Huang (2013) explored antecedents of intention to engage in online group-buying and found that electronic word-of-mouth influences the intention.

Country of Origin: Country of origin (COO) is another brand related attribute that influences user perceptions. Country of origin refers to the country where the product is made. COO influences perceived brand equity (Pappu et al., 2006). Its effects are noticeable when there is a significant difference between the countries in terms of perceived country-category associations. COO plays a significant role in user perceptions

of brands and products (Adina et al., 2015). Fashion product with COO from countries with positive fashion brand images results in more definite purchase intention (Kim et al., 2017). Kinra (2006) investigated Indian users' perception of foreign brands and found that foreign brands have higher quality and value perception.

Value for Money: Pricing has an impact on quality perception and purchase intention. Mahesh (2013) studied green product purchase behavior and found that perceived value and purchase intention are directly related. Value for money is crucial for user satisfaction in the low-cost airline industry (Rajaguru, 2016). Dodds et al. (1991) suggested that higher price positively affects perceived quality; however, it hurts value perception and purchase intention. Higher price results in a lower purchase incidence (Macdonald & Sharp, 2000). Chen and Chang (2018) studied Airbnb users and found that perceived value and satisfaction are essential determinants of purchase intention. Value for money influences intentions to purchase private label products (Kakkos et al., 2015) and mobile applications (Hsu & Lin, 2015).

2.3.2 Product-Related Attributes

Product attributes such as quality of the product, usage experience, fragrance, efficacy, and the texture of the product are explored.

Usage Experience: Experience from trial influences users' brand equity perception (Washburn et al., 2000). Product experience could positively contribute to brand loyalty when users associate the experience with perceived quality (Selnes, 1993). Emotional and social experiences have significant positive impacts on purchase intention (Nasermoadeli et al., 2013). Good user experience may help users overcome negative emotions and lack of trust (Pappas, 2018). Product experience plays a vital role in user satisfaction. User satisfaction results from expectations at purchase and post-purchase experience relative to the price paid (Aydin & Özer, 2005).

Quality of the Product: Academic researchers widely studied the connection between product quality and purchase intention. Perceived quality directly affects user trust and indirectly affects loyalty (Marakanon & Panjakajornsak, 2017). Perceived quality mediates the effects of brand awareness on purchase intention (Chi et al., 2009). By studying private label product users in France, Mejri and Bhatli (2014) suggested that communication of 'social quality' improved quality perception and brand loyalty. Calvo-Porrall and Lévy-Mangin (2017) studied the effect of perceived quality on store brand

purchase intention. They suggested that purchase intention is strongly influenced by quality perception and product price.

Efficacy: Product superiority is the number one factor for market success (Cooper & Kleinschmidt, 1987). According to them, product superiority has multiple dimensions, including the unique benefits, quality, value for money, product innovativeness, perceived product superiority, and effectiveness. Liao et al. (2017) suggested that confirmation of product expectations results in increased repurchase intentions in online shopping.

Fragrance: With increasing competition, the difference between competing products become less evident to the users (Schroiff, 1991). To keep up with competitive pressure, marketers need to explore possibilities of using sensory research, especially 'smell' as a marketing tool (Hultén et al. 2009). It is especially important in categories where the fragrance can be a primary driver for purchase decisions (Milotic, 2003), e.g., body wash and fabric care products. Yang and Chen (2015) investigated users' choice of body lotion products and found that fragrance is an essential factor for purchase intention. Fragrance can be a useful tool for differentiating brands. If used correctly, fragrance can also give an impulsive urge to buy. Users in categories like skin creams and hair shampoos have a habit of sniffing the product at the store before making purchase decisions.

Texture: The product's appearance could influence product selection in several ways. Product appearance may be influenced by texture (Hsiao & Chen, 1997). Based on qualitative user studies, Creusen and Schoormans (2005) showed that product appearance has aesthetic and symbolic values. Further, appearance can also communicate functional characteristics and provide an impression of quality and usability. Product color and form, combined with texture, could appeal to user emotions (Bar & Neta, 2006).

2.3.3 Package-Related Attributes

Package design plays a significant role in influencing purchasing decisions made at the sale (Groth, 2005). According to Prendergast and Pitt (1996), the package is an essential factor in point of sale purchase decisions. Aesthetically appealing packages help generate user attention by breaking through the competitive clutter (Silayoi & Speece, 2004). Design elements of the package influence product selection and purchase (Vyas,

2015). Raheem et al. (2014) studied the influence of the package on buying behavior. They found that package elements like color, material, design, and innovation are essential in buying decisions. The size and shape of the package could influence purchase decisions. Users often relate bigger packs to better value (Prendergast & Marr, 1997).

Convenience of the package: Sehrawet and Kundu (2007) studied the role of the convenience of packaging on the buying behavior of rural and urban users in India. They found that urban users are influenced by the ease of carriage and package weight. In contrast, users from rural areas are more influenced by the ease of storage.

The beautiful look of the package: Package aesthetics has a positive effect on purchase intention. Mata et al. (2017) suggested that package aesthetics significantly influence product appeal. Khan and Khan (2013) studied female skincare users in Indore and reported that products with attractive packages have higher quality perception. By studying consumer goods packages in India, Gopal and George (2014) suggested that creative elements in packaging could trigger product purchases. Riaz et al. (2015) showed that attractive package designs strongly influence female users' purchase intentions. Shekhar and Raveendran (2015) assessed the chocolate purchase behavior of senior citizens in Kerala and reported that visual and informative cues on the package positively correlate with purchase decisions.

Color and shape of the package: Color influences product perceptions and sales (Umezu & Takahashi, 2017). Color has excellent effects on attracting user attention (Noiwan & Norcio, 2006). By studying the role of various package elements such as color, material, and typography on purchase intention of dairy product users in Zimbabwe, Mutsikiwa and Marumbwa (2013), suggested that packages in which designs elements are properly blended have better appeal and higher purchase intention. Typography influences user choices (Baines & Haslam, 2005; White, 2013). The color of a product affects product selection (Clarke & Honeycutt, 2000; Wagner, 1988) and perceptions (Bellizzi & Hite, 1992; Gladwell, 2005; Huang & Lu, 2016; Kerfoot et al., 2003). Silayoi and Speece (2004) found that the visual elements, especially color and graphics, have a strong influence on product selection. The use of warmer, saturated, and less bright colored packages enhances users' sensory expectations (Tijssen et al., 2017). Ares and Deliza (2010) studied milk-based dessert products and found that the package shape and color affect sensory expectations and liking scores. Ettis (2017) investigated the effect of the background color of online stores on perceived enjoyment. They reported

that blue color induces a better-perceived enjoyment than yellow. Clement et al. (2013) demonstrated that the package shape and contrast have dominant effects on capturing user attention at the store. Color helps designers influence emotion and preference (Gong et al., 2017; Manav, 2007). Colors also help in communicating specific symbolic meanings depending on cultural differences (Flynn, 2001).

2.4 Design Strategies

The growing interest in design and innovation has resulted in companies to follow design-driven innovation (Hobday et al., 2012; Noble, 2011; Verganti, 2008). As in 'Design Thinking,' the focal point of this thesis is a deep understanding of the user needs, and prototyping and testing to develop the right solution. Once user behavior and factors influencing decision-making are known, the designers' next focus is to develop design strategies to influence purchase decisions. This thesis investigated package graphic-based design strategies and customization-based design strategies. Package graphic-based design strategies were investigated because of the presence at the point of sale and the potential to induce impulsive urge. Further, customization-based design strategy was also explored. Customization could enhance user motivation by providing users the freedom to decide some of the product features.

2.4.1 Package Graphic-Based Design Strategies

Aesthetics is a significant factor in deciding the market success (Kieran, 1997; Page & Herr, 2002; Perks et al., 2005; Postrel, 2001). Package graphics is an essential tool for marketers to communicate their brands (Celhay & Remaud, 2018) and products (Lo et al., 2017). Several researchers suggested that aesthetics plays a significant factor in user satisfaction (Fynes & Búrca, 2005; Munari, 1971; Swift, 1997). Usually, aesthetics is the first point of interaction between the user and the product. Aesthetics can persuade the user to purchase a product within a short time (Ulrich, 2006). Aesthetics of the product can also help create an impression of better functionality (Lai et al., 2005; Norman, 2002; Tractinsky et al., 2000).

Package design, particularly graphic design, plays a significant role in influencing purchasing decisions. Celhay and Trinquocoste (2015) conducted a study using wine labels and suggested that aesthetics and purchase intention are directly related. It is particularly vital in impulsive buying as purchase decisions are made at the point of sale. Companies are looking to reach target users more effectively than the competition (Vaid,

2003). Companies often have a visual strategy to secure a competitive advantage in the user's mind (Wheeler, 2003). Marketers realize that the target user's reactions are highest at the visual level, especially in the tangible consumer goods market (Sridhar & O'Brien, 2013). Product design should ensure that the brand stands out at the shelf, recognized, and included in the consideration list (Connolly & Davison, 1996).

Researchers advocated using packaging as the most prominent medium of communication because of its broad reach to purchasers and presence at the point of sale (Behaeghel, 1991; Peters, 1994; Rettie & Brewer, 2000). Graphic design has a significant impact on the user's choice (Hamlin, 2016). The picture quality of package graphics has a significant relationship with purchase intention (Olawepo & Ibojo, 2015). Package graphics could help drive high user involvement, making it an essential part of branding (Connolly & Davison, 1996). Wei et al. (2014) studied package design in the fruit juice category. They found that the color harmony of the packages is positively correlated with liking and product quality perceptions. Package graphics can influence the user's attitude towards the product (Westerman et al., 2013). Package graphics can influence user perception of sustainability (Steenis et al., 2017). Having powerful package graphic designs would reward the marketer with strong stopping and closing power at the point of sale. It also helps drive brand awareness, establish brand identity, and ultimately grow the bottom line.

Over the past several years, design elements in advertisements and packaging have attracted a considerable amount of academic research (Celhay et al., 2017; Riaz et al., 2015; Vyas, 2015). Visual elements, mainly graphics and color, significantly influence users' choice of the product by breaking through the competitive clutter (Silayoi & Speece, 2004). Vyas (2015) suggested that package design elements influence the user to like and purchase the product. Researchers have also investigated the role of design elements in advertisement design and branding. Kim (2001) showed how individual design elements such as shape, layout, and logos operate in advertising. Kim (2002) studied the role of color in branding and proposed using specific colors to target specific brand personalities.

Mutsikiwa and Marumbwa (2013) investigated the impact of package design elements such as color, material, and typography on purchase decisions for dairy products. Their study revealed that not all design elements trigger purchases. Instead, designs with appropriately blended design elements appealed to the users. Riaz et al.

(2015) showed that attractive packaging designs strongly influence female users' cosmetics purchase decisions. Khan and Khan (2013) investigated the influence of packaging on female skincare users in Indore and observed that products with attractive packages have higher perceived quality. Shekhar and Raveendran (2015) suggested that the visual and informative cues on chocolate packages positively correlate to purchasing decisions. Creative elements on packaging could trigger an increase in FMCG sales (Gopal & George, 2014).

Clement et al. (2013) studied the package design's influence on the users' in-store visual perceptions. They identified that contrast and shape are the dominating design features to capture user attention during store browsing. Rundh (2009) suggested that package material plays a significant role in designing successful packages.

Package design has a significant role in capturing user attention and communicating product expectations (Rebollar et al., 2012). Rebollar et al. (2012) investigated the influence of the package design of chewing gum on product expectations. They demonstrated that expectations of the product's functional attributes could be communicated using package format. Sensory attributes like taste could be communicated using package color. Using virtual reality-based methods, Underwood et al. (2001) showed that the presence of images on the package increases the user attention. Becker et al. (2011) examined the package design's effect on taste impressions of yogurt products. They found that the curvature of the package could communicate taste experience. They also suggested that design elements like shape curvature and color saturation could impact the value perception.

2.4.2 Customization-Based Design Strategies

In a competitive marketplace, products need to be differentiated to get user attention. If a product is perceived to be exactly like others, users would have no reason to buy it (Kotler & Armstrong, 2012). Marketers use positioning strategies to differentiate their products from competitors. Product design could play an essential role in developing differentiated positioning strategies. User-centric design strategies, particularly the use of strategies that enhances user motivations, could provide a competitive advantage. Customization is an example of a user-centric design. Customization keeps the user at the center and develops the product according to their choice of product features (Moon et al., 2008). Customization improves user satisfaction

and leads to loyalty and stronger purchase intentions (Franke et al., 2010; Kurniawan et al., 2006). The perceived knowledge gain from the customization process influences the value perception and directly impacts price sensitivity (Jiang et al., 2015).

Park and Yoo (2018) conducted a study among South Korean female online shoppers. They found that perceived benefits influence attitude towards mass customization. Companies in specific categories, e.g., Dell computers, have been successfully offering customization for several years (Wind & Rangaswamy, 2001). Customization provides users more convenience, reduced cost, and other benefits depending on the features selected (Peppers & Rogers, 1997).

User-centric design strategies, especially customization, has attracted considerable interest from academic researchers (Anderson-Connell et al., 2002; Cho & Fiorito, 2009; Endo & Kincade, 2008). Moon et al. (2008) conducted a study among domestic and international students in a New Zealand university to understand the influence of culture, product type, and price on purchase intention for personalized products. They found that culture, particularly the individualism dimension and significance, positively influences purchase intention. However, 'price' did not significantly influence purchase intention. Cho and Fiorito (2009) investigated factors influencing US users' acceptance of customization in online retailing. They found that a competent and secure website is critical for the acceptance of online customization. Fiore et al. (2004) conducted a study among American users to understand individual differences, motivations, and willingness to use mass customization for fashion products. They suggested that enjoyment from the experience co-designing drives the preference for customization. Further, they also found that customized products have higher value perception due to uniqueness.

Several researchers have investigated user acceptance of customization in individualist markets like the USA. However, studies on user acceptance of customization in collectivist markets like India are limited (Singelis & Brown, 1995). Mehra et al. (2015) conducted an exploratory study among young Indian users to investigate market readiness for mass customization. They identified that users prefer customization for several categories like computers, personal accessories, and footwear. However, price premium, wait time for the product development and delivery, and time required for designing the products were identified as barriers for accepting customization.

A study of personal and mass customization-based design strategy was conducted among Indian users to understand their perception of the concept. Findings from the study provided relevant insights to designers in the domestic market.

2.5 Insights from Literature Review

The state-of-the-art literature review showed considerable gaps in understanding factors influencing purchase decisions. The gaps in the literature were more evident for planned purchasing than impulsive buying. Although there is an abundance of research on impulsive buying, researches on planned purchasing are limited. The existing research on planned purchases focused on user behavior in purchasing a particular category of products like organic products and halal food. However, research in understanding factors influencing a specific brand selection within a category is limited. Understanding user behavior in selecting specific categories are relevant. However, product designers and marketers would be more interested in factors associated with selecting a specific brand within a category.

Following the extensive literature review, it was observed that studies connecting user behavior and design strategies are rare. Most of the prior reported studies focused on either one of them. In the present research, empirical studies were carried out to understand various factors influencing purchase decisions. Further, design strategies to influence planned and impulsive buying were also investigated. From the literature, it is understood that planned and impulsive buying are the two most common behavior of users in consumer goods purchases. Hence present research focused on them. The studies were conducted primarily among social media engaged, young Indian population. Some exploratory studies were also conducted in other Asian markets.

Further, package graphic and customization-based design strategies were explored. Package graphic design strategy was explored due to its presence at the point of sale and its widespread acceptance as an excellent visual communication vehicle. Customization was explored as it is a user-centric design strategy and engages users' cognitive activities for planned purchasing. In addition, the role of product experience in product purchase and user-brand relationships were also studied.

2.6 Research Questions

Understanding user preferences and perceptions have become increasingly important for product designers and marketers. State of the art literature presented above showed the need to conduct studies on factors influencing purchase decisions and behavior-based product design strategies. Buying behavior-based product design strategies would help companies to win in the marketplace.

The physical and emotional attributes of a product are influential in choice making. The market provides a wide range of product offerings across all product categories. Products with different sizes, shapes, colors, social status, and fragrances are available. Besides, social media and e-commerce also influence users. User behavior has become difficult to predict even for experts in the industry.

When understanding user behavior in product purchases, it is essential to know the underlying reasons why users buy the products. Once user behavior in product purchase is known, the next critical step for the designer is to develop product designs that influence the choice. User choices could be influenced either by using trigger strategies or increasing the user motivation using product design. The discussions on user behavior in product purchase and design strategies evoked a few research questions leading to this thesis. They are as follows:

RQ1: Do package graphics influence users' perception of the product?

RQ2: Could package graphic design influence the user's perception of the brand?

RQ3: What are the various factors that influence the user in planned purchase decision making?

RQ 4: What is the relative importance of various factors in planned purchase decision making?

RQ5: Can customization-based design strategy help influence user motivation for product purchase?

RQ6: What is the role of product experience in product purchase?

RQ7: Is there any relationship between product experience and user-based brand equity?

The research results would provide relevant information in advancing the understanding of user behavior in product purchases. The research is especially relevant in consumer goods in the Indian market and other Asian markets to a great extent. Further, the studies would also provide learnings on product design strategies using package graphics and customization. More broadly, the study should provide valuable insights for product designers and marketing managers in developing robust user-based brand equity.

2.7 Research Plan

This section provides an overview of the research methodology. The research was conducted in three phases, as illustrated in Figure 2.1 and briefly discussed below. Detailed research methodologies used for each of the experiments are described in respective chapters.

Phase 1: The objective of Phase 1 was to develop package graphic-based design strategies for consumer goods products like hair shampoo and chocolates in the Indian market. Package graphics of shampoo products were investigated using qualitative content analysis. A code sheet incorporating the designer's perspective was developed to identify design elements of package graphics. Further, user studies involving qualitative and quantitative methods and eye movement tracker were performed to identify the essential design elements needed for user acceptance. Insights from the studies were used to formulate a package graphics design strategy for driving user acceptance. Further, the design strategy was validated using an online user study. Lastly, cross-category applicability of the design strategy was evaluated using studies involving a chocolate product.

Phase 2: Phase 2 research investigated decision making in planned purchasing and customization-based design strategy. Qualitative user studies were conducted in several Asian markets such as Thailand, Taiwan, Hong Kong, China, and South Korea for identifying factors influencing purchase decisions. User studies were conducted using in-depth interviews and shop-along methodologies. Further, a small-scale quantitative study was conducted for assessing the relative importance of various factors influencing decisions. Lastly, an online user study was conducted to assess user acceptance of customization-based design strategy as a potential fit for planned purchasing behavior.

Phase 3: Phase 3 of the research aimed to obtain a deeper understanding of consumer goods buyers in the Indian market. A quantitative user study was conducted to identify the relative importance of various brand, product, and package-related attributes in purchase decisions. Additionally, an experiment involving in-context user studies with a Physical Laboratory Store was conducted for assessing the role of product experience in user-based brand equity.

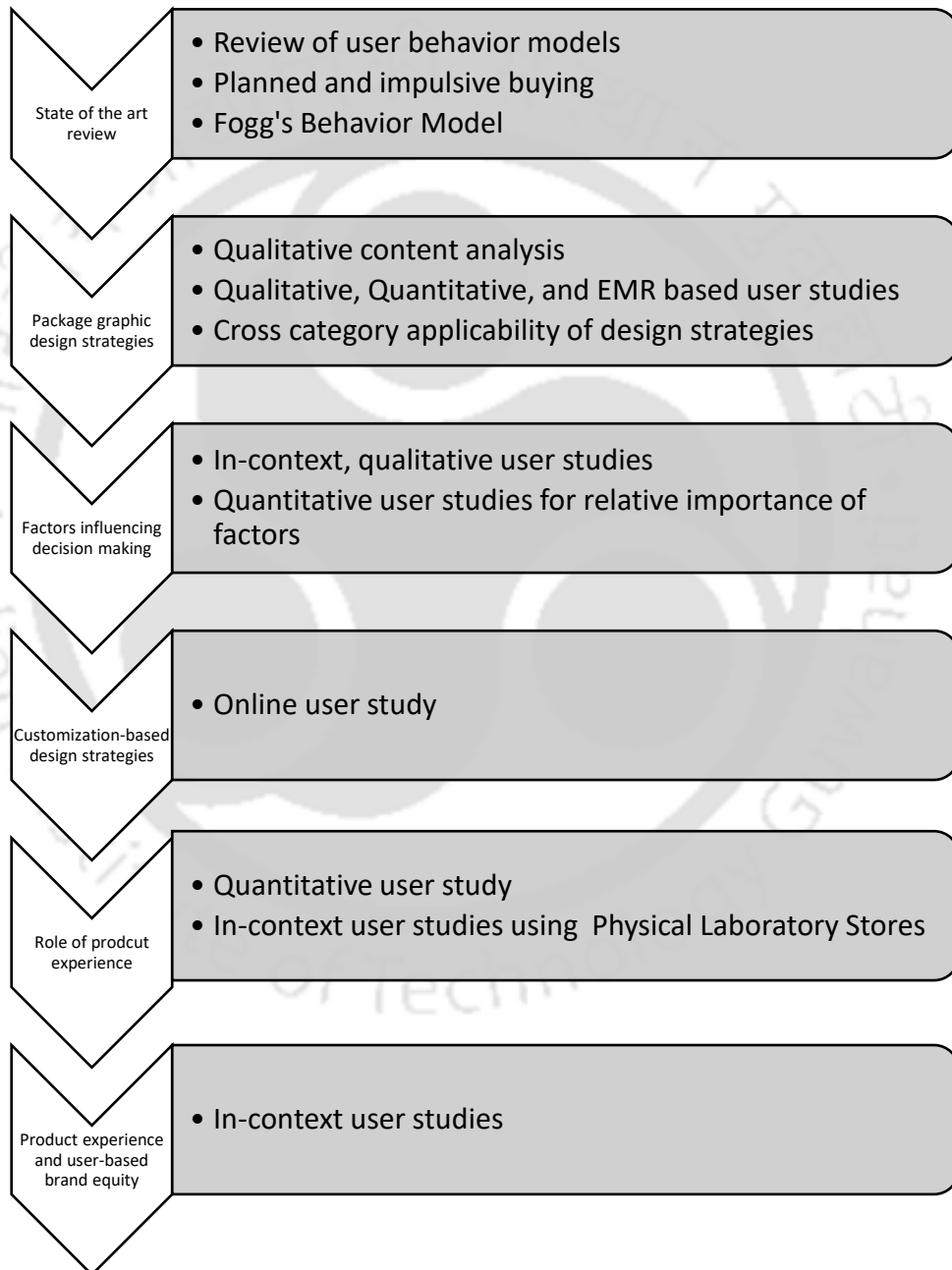


Figure 2.1: Graphical representation of the research plan.

2.8 Chapter Summary

A summary of the literature review on user behavior in product purchase, mainly planned and impulsive buying, was presented. Besides, a brief review of existing research on the various brand, product, and package-related attributes influencing users in purchase decisions was reported. The impact of the past investigations on product design strategies such as package graphic-based design strategies and customization-based design strategies have been discussed in detail. Lastly, insights from the literature review and research questions were presented, along with a brief overview of the research plan.



Chapter 3

Package Graphic-Based Design Strategies

***Chapter Abstract:** This chapter presents an investigation of design strategies for impulsive buying. Package graphic-based design strategies were explored as packages are present at the point of sale where the impulsive purchase decisions are made. A study involving packaging graphics in the hair shampoo category was conducted among young Indian users. The study employed qualitative content analysis incorporating the designer's perspective, qualitative and quantitative user evaluations, and Eye Movement Recorder based user studies. The insights from the study were used to formulate a set of guidelines for the package graphic designers. The guidelines were validated by developing a modified design and a quantitative user study assessing relative user acceptance. The cross-category applicability of the design strategy was assessed by using a chocolate product.*

3.1 Introduction

Products in impulsive and planned purchasing categories require substantially different design strategies due to the differences in purchase decisions. In planned purchasing, users undergo a relatively long thought process, i.e., planning before the actual purchase. In contrast, decision making is spontaneous in impulsive purchasing (D'Antoni & Shenson, 1973). The differences in decision making have significant implications for product designers and marketing managers (Lysonski et al., 1996). In impulsive buying, purchase decisions are made at the point of sale. For impulsive buying categories, the designer should ensure that the products are presented at the store in such a way to catch user attention and provide a strong urge to drive purchase.

In planned purchasing, the decision is made even before entering the store. Therefore, the designer needs to focus more on communicating the functional benefits than its presentation. Focusing more on the product's functional aspect helps ensure that the product design provides a strong motivation to drive the user to the store.

The differences in buying behavior are equally relevant for marketers. For products in planned purchasing, marketers need to spend a substantial amount of their marketing budget on seeding the brand and product features. For products positioned for impulsive buying, marketing efforts could be more focused on in-store communications, as purchase decisions are made at the store.

Based on the review of Fogg's model (Fogg, 2009), this thesis argues that pleasure is a functional element of motivation for impulsive buying. The result of pleasure is spontaneous. Based on this insight, current research uses package graphic-based design strategies to drive pleasure and drive the urge to purchase as a design strategy for impulsive buying.

3.2 Experiment 1: Hair Care Package Graphic Study

Packages can influence brand attractiveness and increase brand image (Farooq et al., 2015). Academic research has paid considerable attention to Indian user's perceptions of package design. Sehwret and Kundu (2007) studied the impact of packaging on Indian users buying behavior. Their research revealed that users from rural areas are influenced by the ease of storage of the package. In contrast, urban users are influenced by the ease of carriage, weight, simplicity, and transparency of the package. Agariya et al. (2012) studied the role of packaging on brand communications among Indian users. They suggested that user attraction should be given higher importance in package design. Elements such as environmental factors of package design could be given less significance.

3.2.1 Research Methodology

A study of shampoo package graphics was conducted among young Indian users to assess design elements' effect on user acceptance. Haircare is a fast-growing industry in India, with about 9.6% annual growth and a \$3.3 billion market size (Kapoor et al., 2019). The study incorporated designer and user perspectives and used qualitative and quantitative techniques. A descriptive qualitative content analysis incorporating the designer's perspective was performed to isolate and assess package graphics design elements. Next, an Image test using traditional qualitative and quantitative research was performed to assess user acceptance. Lastly, an Eye Movement Recorder (EMR) based study was conducted to identify design elements that capture user attention. Image tests and EMR studies were conducted among eleven users, including five females and six males. No exclusion criteria were used for user recruitment. All users were students of IIT Guwahati and natives of different parts of India. All users were voluntary participants and were not rewarded. The studies were conducted at UE lab, IIT Guwahati, in September 2015.

3.2.1.1 Qualitative Content Analysis

Qualitative content analysis has a long history in research for analyzing qualitative data (Elo et al., 2014). Qualitative content analysis is structured, systematic, and analytic. According to Maxwell (2005), the primary strategy behind qualitative research is coding. Coding aims to rearrange data into groups (Graneheim et al., 2017). The grouping facilitates comparison between elements in the same group, which helps develop theoretical concepts (Celhay et al., 2017). The qualitative content analysis helps the researchers organize and extract the meaning from the data and draw realistic conclusions (Bengtsson, 2016). One limitation of content analysis is that findings are limited to the framework and the definitions employed (Wu et al., 2016). In the current research, this limitation was minimized by precisely defining the groups and elements. Hence other researchers could apply the same tools to the same data and achieve the same results. Details of the code sheet used are presented in section 3.2.1.5.

3.2.1.2 Image Test

Image tests using traditional qualitative and quantitative techniques are widely used in design research to get insights into users' attitudes and preferences (Rettie & Brewer, 2000).

3.2.1.3 Eye Movement Recorder

Eye-tracking is the process of measuring eye movement (Duchowski, 2007). Eye-tracking studies are based on tracking the pupil movement as it moves across an image (Millman & Bainbridge, 2008). Eye-tracking is a useful method for visual evaluations (Gulliver & Ghinea, 2004). It is a complementary user assessment technique to other traditional techniques like interviews. EMR has a history of over 30 years and is the leading technology to measure how humans 'see' products (Duchowski, 2007). EMR studies provide real-time user reactions (Guo et al., 2016). Eye-tracking effectively measures how users navigate a design (Khushaba et al., 2013; Vu et al., 2016), i.e., what they look at first, what they pause for longer, and what they go back to and study again (Lee & Ahn, 2012; Loyola et al., 2015). Eye-tracking is a useful tool for assessing how users interact with products and packages (Santos et al., 2015). EMR could provide an accurate response if the designs are tested under the same circumstances and with a significant number of users.

One drawback of EMR based study is that the design evaluation is done in isolation. The real context and final execution are not considered in EMR studies. For example, commercialization elements such as promotions and advertising are not considered when evaluating design using eye-tracking. This limitation is not relevant to the current study. The current study is limited to design elements of package graphics and not purchase decisions.

3.2.1.4 Sampling

A purposive sampling technique was used for selecting package graphics for the study. A purposive sample is one in which the researcher uses personal judgment to determine if certain items of a population best serve the study (Barber & Burt, 1996). Purposive sampling is useful when the population is vast (Etikan et al., 2016). It could be used for qualitative and quantitative researches (Tongco, 2007). Purposive sampling was chosen for this study due to the lack of prior reported researches on shampoo package graphics.

3.2.1.5 Materials

Package graphics used for the study were collected from the Amazon website using an internet-enabled computer. Eight package graphics were collected, with a mix of international (Pantene, Dove, & Herbal Essence brands) and domestic brands (Ayush, Patanjali, & Indulekha brands). For Pantene and Dove, package graphics of products from the USA and India were collected. However, for the Herbal Essence brand, only one version was available. Shampoo products with a 'white' color package were chosen to avoid the variability due to the bottle color and product types. Graphics selected for the experiment are presented in Figure 3.1.



Figure 3.1: Package graphics used for Experiment 1. From left, Dove USA, Pantene USA, Herbal Essence, Ayush, Indulekha, Patanjali, Dove India, and Pantene India.

For Qualitative content analysis, a code sheet was developed with inspiration from Rhoads (2007). Rhoads's code sheet focused on design principles to assess print and website advertisements for beauty care products. In the current study, the code sheet was used for package graphics. The code sheet focused on design elements like typography, color, presence of logo, layout, and illustration style. The coding sheet enabled the researcher to compare and analyze the design strategies of different graphics. Code sheet elements and definitions used for the study are the following.

- Brand: Write the brand name of the product
- Packaging: Describe what type of package is used. Can the product form be identifiable with the package?
- Typography: Is there a specific or unique type style used in the package graphics? This code does not refer to the typography used in the logo.
- Color: Is there a color scheme present in the package graphics? Does the graphics feature color in the text?
- Does the color used in the package appear to be a focus? Does the package use one color, spot color, or full color? Please describe and explain. Also, record the colors emphasized, if any.
- Logo: Record whether a logo is used within the package graphics. Is the logo an image only, or does it include text?
- Overall Design principle: A brief description of what the designer wants the user to focus on the design.

For qualitative and quantitative user evaluations, a questionnaire was developed uniquely for this study due to the absence of published questioners. Qualitative evaluations were done by showing images in groups one group of all eight images (Figure 3.1), one group of all the domestic packages, one group of packages from the USA, and two groups of two packages (Pantene from India and USA, and Dove from India and USA). A few questions were asked to understand user preferences of the package graphics. These included questions such as: which graphics are attractive, why does the user think it is attractive, which graphics are not attractive, why does the user think they are not attractive, which graphic looks the most 'premium,' and so on. For quantitative

evaluations, individual package graphics were shown one after another. Users were asked to rate each image against eighteen keywords on a scale of one to five. Users were required to rate the keyword five if they strongly agree that the keyword fits their perception of the design and one if they strongly disagree. The scale was balanced at three, for neither agree nor disagree. Keywords assessed included beautiful, premium, trusted, bad, boring, ordinary, ugly, and hate.

For Eye Movement Recording (EMR), the Tobii eye movement recorder at UE Lab, IIT Guwahati, was used. Package graphics were shown the same way as qualitative and quantitative studies (one after another and in groups). The experiment set up used for the Eye Movement Recorder study is presented in Figure 3.2. The questionnaire used for the study is presented in Appendix 1.



Figure 3.2: Eye Movement Recorder based study conducted at UE Lab, Dept. of Design, IIT Guwahati.

3.2.2 Results and Observations

Results and observations are grouped into the qualitative content analysis, qualitative and quantitative user evaluation, and Eye Movement Recorder based observations.

3.2.2.1 Qualitative Content Analysis

Observations on typography, logo, and color based on qualitative content analysis are presented.

Typography

1. All designs have given the highest importance for the brand name. All designs used the largest font size to write the brand name (Figure 3.3).



Figure 3.3: Results from the qualitative content analysis of brand names. Blue boxes highlight brand names on the package graphics.

2. Most of the graphics (7 out of 9) used the brand name as the topmost text to drive user attention (Figure 3.4). Pantene India and Herbal Essence were the exceptions. They used the topmost text to represent a price promotion and newness, respectively.



Figure 3.4: Results from the qualitative content analysis of the topmost text. Blue boxes highlight package graphics that gave the highest weightage for brand names and orange boxes highlighting the deviations.

3. As in Ayush and Herbal Essence, too much text information on graphics creates clutter (Figure 3.5), making the designs aesthetically less attractive.



Figure 3.5: Results from the qualitative content analysis: Orange boxes highlight too much information on the design, making it unattractive.

Logo

1. Among package graphics assessed, only brands with international presence had a logo (Pantene India, Pantene USA, Dove India, Dove USA, and Herbal Essence). None of the domestic brands had a logo.
2. Among graphics with a logo (Dove, Pantene, and Herbal Essence), Dove and Pantene positioned the logo in the middle, right below the brand name (Figure 3.6). Herbal Essence positioned the logo above the brand name.



Figure 3.6: Results from the qualitative content analysis: Blue boxes highlight the positioning of the logo.

3. Most domestic brands used the area below the brand name to visualize ingredients in the product, except for 'Ayush.' Ayush neither had a logo nor an ingredient visual.
4. Herbal Essence had a logo and an ingredient visual on the pack, making the design very busy.



Figure 3.7: Results from the qualitative content analysis: Blue boxes highlight the positioning of ingredient visuals.

5. Visuals and logo on global brands like Pantene and Dove had a higher level of clarity than visuals on domestic brands like Patanjali and Indulekha (Figure 3.8). The clarity of the visuals affects the overall acceptance of the design.



Figure 3.8: Results from the qualitative content analysis: Orange boxes highlight the dull ingredient visuals on the package.

Color

1. All designs used the number of colors conservatively, consistent with guidelines established by Lidwell et al. (2010).
2. Designs of Pantene and Ayush used gold color to drive premiumness while Dove used glossy blue and gold. Herbal Essence used green to communicate ‘Herbal.’ In contrast, domestic brands like Indulekha used colors in nature to communicate natural (natural ingredients are used).
3. Pantene India used gold color to highlight the entire cap area, while Ayush and Pantene USA used a thin gold band. Both elevated the premiumness. Herbal Essence used green color (consistent with the logo) to highlight the cap opening.

3.2.2.2 Qualitative and Quantitative User Evaluations

Observations based on qualitative and quantitative user evaluations were consistent with the observations from the qualitative content analysis. Users identified package graphics of Pantene India, Pantene USA, Dove India, and Dove USA as noticeably better and attractive than others, primarily because of overall simplicity, presence of the logo, and use of gold and glossy blue colors.

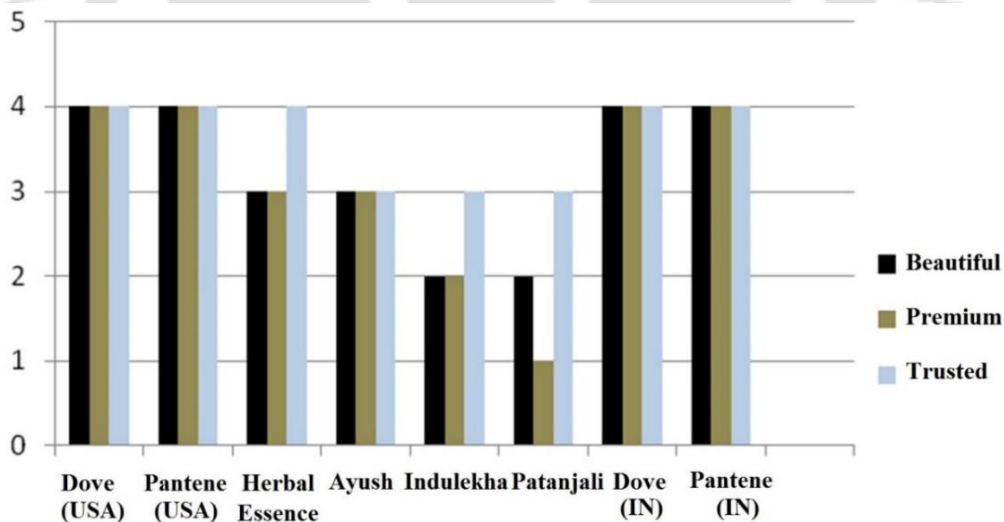


Figure 3.9: Chart presenting the median score of user rating for keywords ‘Beautiful’, ‘Premium’, and ‘Trusted’ (Five-point Likert scale, N=11). Scale 5 represents Strongly Agree, 4 for Agree, 3 for Neutral, 2 for Disagree, and 1 for Strongly Disagree.

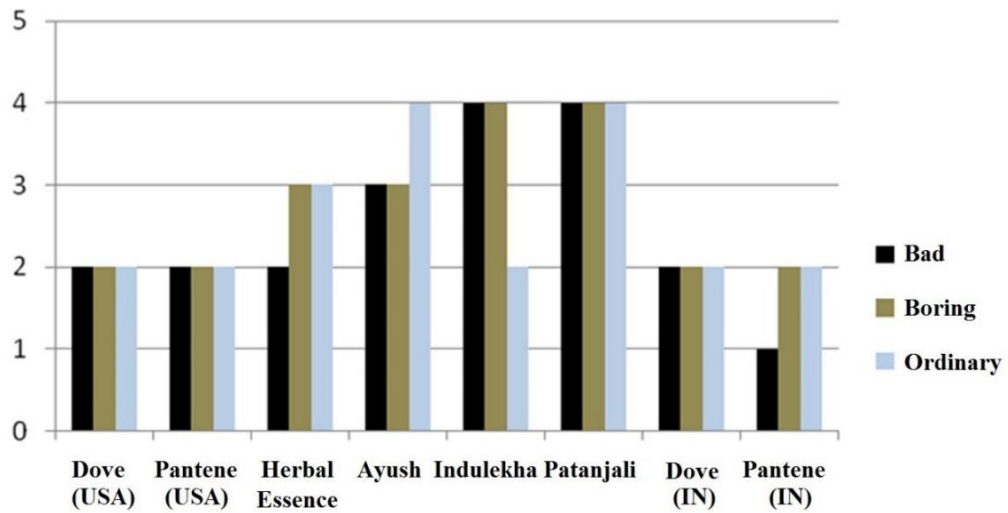


Figure 3.10: Chart presenting the median score of user rating for keywords ‘Bad’, ‘Boring’, and ‘Ordinary’ (Five-point Likert scale, N=11). Scale 5 represents Strongly Agree, 4 for Agree, 3 for Neutral, 2 for Disagree, and 1 for Strongly Disagree.

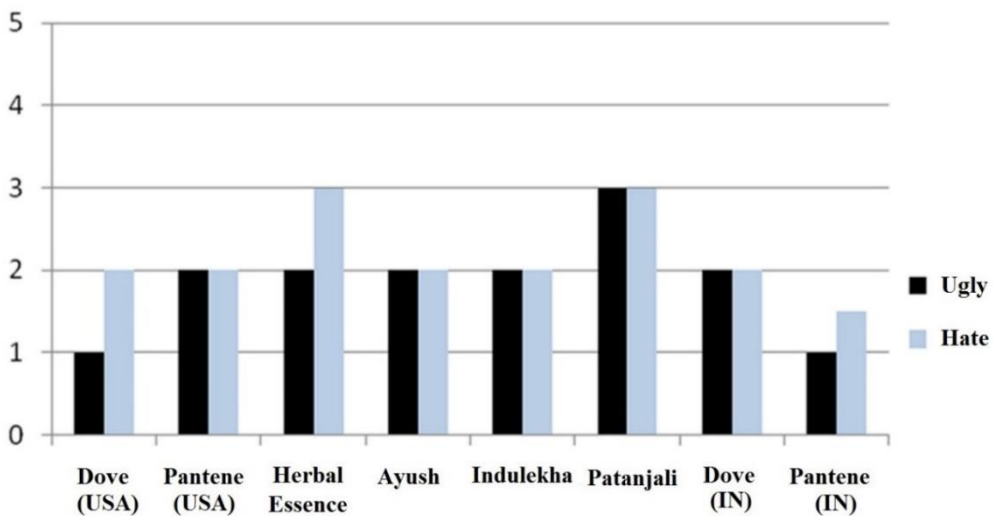


Figure 3.11: Chart presenting the median score of user rating for keywords ‘Ugly’ and ‘Hate’ (Five-point Likert scale, N=11). Scale 5 represents Strongly Agree, 4 for Agree, 3 for Neutral, 2 for Disagree, and 1 for Strongly Disagree.

For positive keywords beautiful, premium, and trusted, graphics of international brands received a higher median score than domestic brands. For keywords bad, boring, and ordinary, it reversed. When using highly negative keywords like ugly and hate, users

rated neutral or negative (disagree/strongly disagree) for all designs. From qualitative interviews, overall simplicity (not too many contents) of the design, use of a logo, and gold and glossy blue colors were identified as primary reasons for the global brands' better aesthetic appeal. Results from quantitative user evaluation are presented in Figures 3.9 to 3.11.

Users also appreciated the logo of Herbal Essence, gold bands on Pantene USA and Ayush, the golden cap color of Pantene India, and the green cap opening of Herbal Essence. Among domestic brands, Ayush had higher acceptance because of the use of a gold band. Package graphics of Indulekha and Patanjali were identified as the least attractive designs.

3.2.2.3 Observations from Eye Movement Recorder

EMR data analysis gave insights on the user's viewing pattern. When all graphics were shown together, most of the attention was focused on the bottle's upper half. It indicates that information with higher importance should be placed towards the top of the bottle (upper half). In contrast, lesser important information may be placed towards the bottom. Users may not pay attention to the bottom half at the first look.

Further, EMR also helped in validating the findings from other studies. When graphics were shown individually and in groups of two and three, brand names, logos, gold bands, ingredient visuals, and the cap captured most of the attention. Examples of results obtained from EMR studies are presented in Figures 3.12 to 3.14.



Figure 3.12 An example of viewing patterns from the EMR study: Red box shows that the user did not look at the design's bottom part.



Figure 3.13: An example of hot spot analysis from the EMR study: Recorded by showing all package images together.

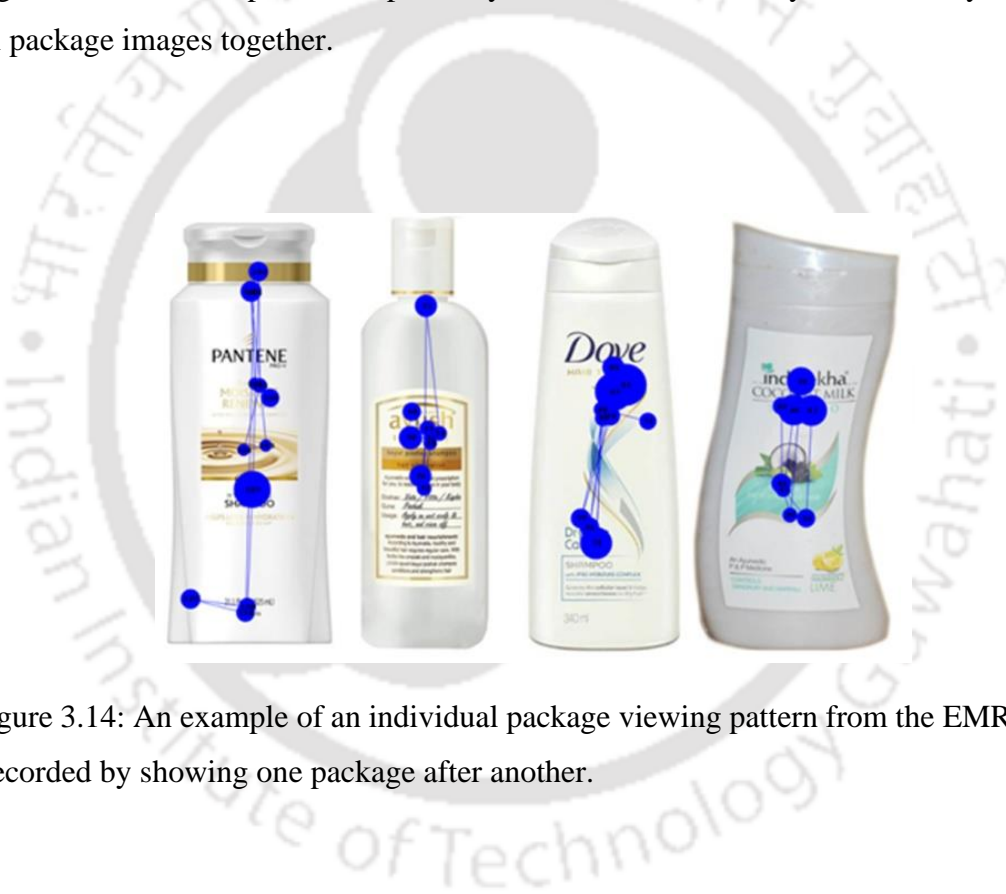


Figure 3.14: An example of an individual package viewing pattern from the EMR study: Recorded by showing one package after another.

3.2.2.4 Formulating Package Graphic-Based Design Strategy

Learnings from the qualitative content analysis, EMR studies, and qualitative and quantitative user studies were used to formulate a design strategy for package graphic designers in product categories like shampoos.

1. Among the design elements, brand name typography should be given the highest weightage. It should be given the largest font size and must be placed towards the top of the bottle.

2. The presence of a logo or an ingredient visual would also help in driving attention. Hence the logo may be given the second-highest weightage. If used correctly, both can drive attention.
3. Coloring the cap or cap opening area with colors of the logo would capture user attention. The use of a gold band on the cap would drive premiumness for packages that do not use natural ingredient communication. For packages that use a natural ingredient communication, colors of ingredient visual may be used to highlight the cap.
4. Too many texts and visuals would make the design unattractive. It may also deviate user attention.
5. The top part of the bottle (upper half) should be used for communicating information with higher importance. Less important information may be placed towards the base of the design. The base part of the design may communicate the product type, benefit, and quantity. Too much information on the design should be avoided, as it creates clutter and makes the design unattractive.

3.3 Experiment 2a: Validation of Package Graphic-Based Design Strategy

Validation of the package graphic design strategies was performed using an online user study among Indian users.

3.3.1 Materials

Validation of the package graphic design strategy was conducted by developing an improved design of Patanjali package graphics. An improved design was developed based on the design strategy formulated from Experiment 1 (section 3.2.2.4), with a professional graphic designer based in Kerala, India. Modifications included changing the cap opening area to gold color and adding a gold band. Further, ingredient visual on the graphic was changed and reduced cluttering by removing some texts. Lastly, the overall clarity of the color was improved. The shape and brand name were kept unchanged. The modified design developed for the experiment is presented in Figure 3.15.

Besides, two additional exploratory designs were developed by modifying the package graphics of Indulekha, the second least accepted design in Experiment 1. One of

the designs was developed by highlighting the entire cap area with gold color (Modified Design 2A). The second was developed by highlighting the entire cap area with the ingredient color (Modified Design 2B). Besides the changes to the cap, a design theme was introduced on the bottle to communicate freshness. The original and modified designs developed for the experiment are presented in Figure 3.16.

3.3.2 Methodology

An online survey-based study was conducted among fifty-seven Indian users to assess the acceptance of modified and original designs. Users for the study were recruited using social media platforms like Facebook and WhatsApp. Sixty-three percent of the users were males, and twenty-eight percent were females. The remaining nine percent opted not to answer the question. The users were predominantly of the young age group. Ninety-one percent of the users were within the age group of 15-34, and eight percent were between 35-44. All users were voluntary participants and were not rewarded for participation. The relative preference of the designs was assessed by presenting the original and modified designs side by side. Users were asked to select one image that best fits the keywords. Keywords included Beautiful, Premium, Innovative, Trusted, Bad, Boring, Ugly, Hate, and Ordinary. The experiment was conducted in August 2016. The questionnaire used for the experiment is presented in Appendix 2.



Figure 3.15: Original and Modified Designs of Design 1(Patanjali).

3.3.3 Results

The results of the survey are presented in Figures 3.17 to 3.19. Comparison of the original design I and modified design I (Figure 3.17) showed that over eighty percent of users preferred the modified design for 'beautiful' and 'premium' keywords. For negative keywords such as 'bad,' 'boring,' 'ugly,' and 'hate,' over eighty percent of users selected the original design. For the keyword 'trusted,' over 60% of the users selected the modified design. In comparison, over 70% of users selected the original design for 'ordinary.' Based on the results, it can be concluded that the modified design improved the overall aesthetic perception of the package graphics. The results of relative user acceptance of exploratory designs are presented in Figures 3.18 and 3.19. The modified designs received better user acceptance for keywords 'beautiful,' 'premium,' 'innovative,' and 'trusted'; and lower scores for negative keywords like 'bad,' 'boring,' 'ordinary,' and 'ugly.'



Figure 3.16: Original and modified design of Design 2 (Design 2- Indulekha).

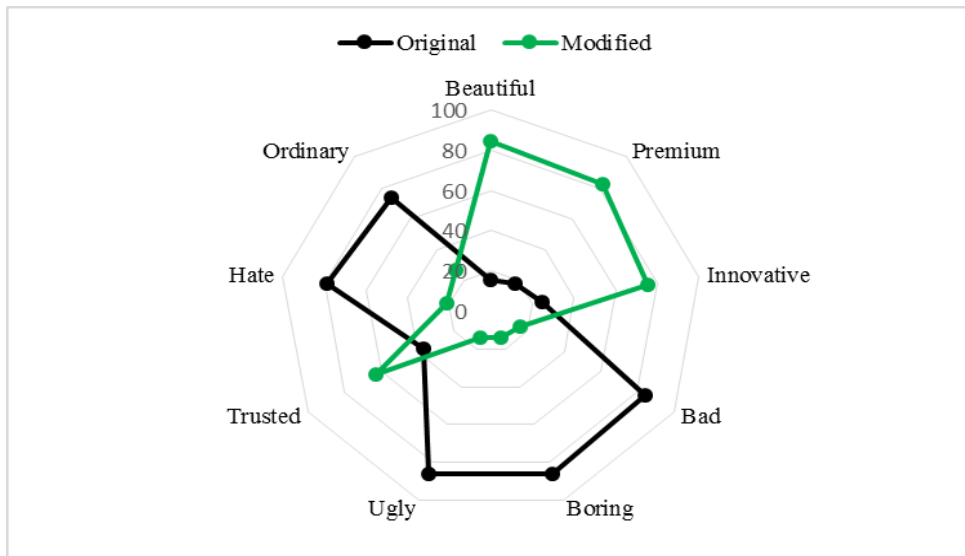


Figure 3.17: Chart showing results of the online survey of user acceptance (as measured by the percent of user selection) of original and modified design (Design 1- Patanjali). (N=57 users).

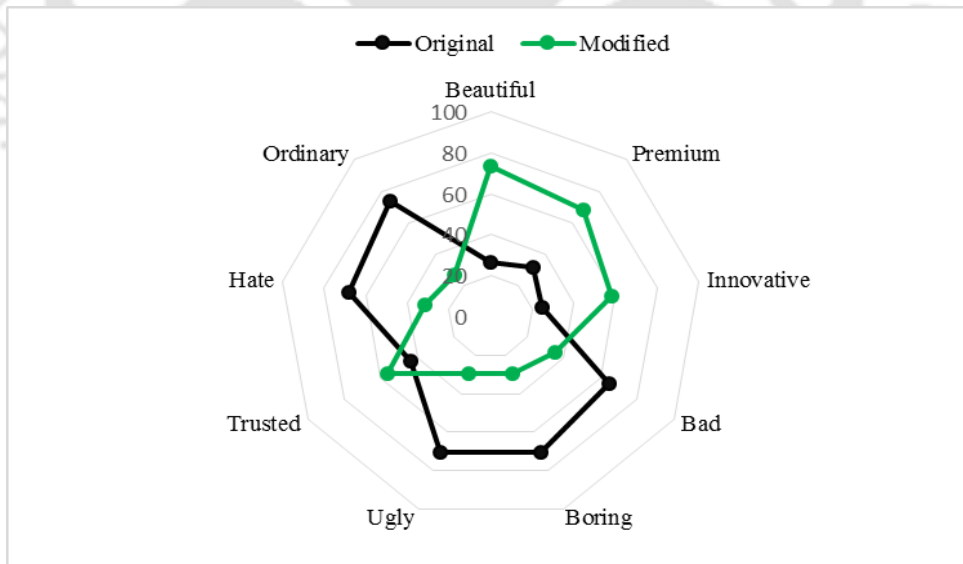


Figure 3.18: Chart showing results of the online survey of relative user acceptance (as measured by the percent of user selection) of original design 2 and modified design 2A. (Design 2- Indulekha) (N=57).

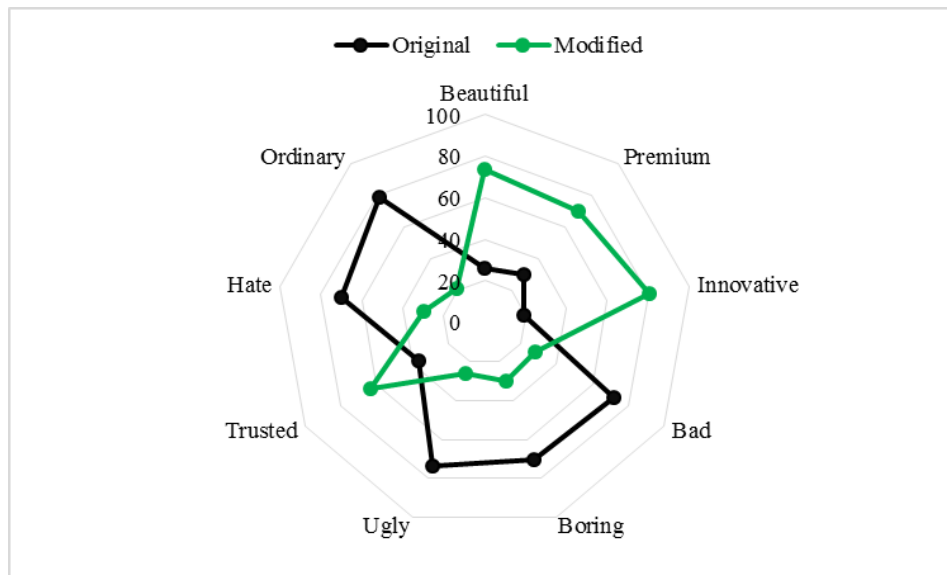


Figure 3.19: Chart showing results of the online survey of relative user acceptance (as measured by the percent of user selection) of original design 2 and modified design 2B (Design 2- Indulekha) (N=57).

3.4 Experiment 2b: Assessing Effect of Package Graphics on User Perception of the Brand

As part of Experiment 2, user assessment was also conducted to understand the package graphics' effect on brand perception. The study assessed brand archetype perception of original and modified designs presented in Figure 3.15 (page.47). Brand Archetype is a system for brands to provide real meanings to the user (Mark & Pearson, 2001). Archetypes are based on psychological concepts developed by psychologist Jung (1954), who described archetypes as intrinsic images that repeat across cultures and generations. Archetype psychology helps to understand the inherent meaning of products. It allows companies to create enduring brand identities and establish market dominance (Xara-Brasil et al., 2018). Marketers use an archetypal approach to define the brand's purpose and relationship with the users (Mirzaee & George, 2016). Mark and Pearson (2001) described twelve archetypes: Creator, Caregiver, Ruler, Jester, Regular Guy, Lover, Hero, Outlaw, Magician, Innocent, Explorer, and Sage.

Creating an identity using brand archetypes or brand personality has attracted a considerable amount of academic research (Boudreaux & Palmer 2007; Caprara et al., 2001). According to Aaker (1997), brand personality is a set of human characteristics

associated with a brand. Brand personality could be created using the brand name (Klink & Athaide, 2012). They conducted an experiment using four pairs of fictitious brand names differing only in vowels. Their study revealed that a Ruggedness personality could be formed better by using back vowels than front vowels. Besides, Sophistication and Sincerity personalities were better created using front vowels. Pantin-Sohier et al. (2005) studied the effect of color and shape of the package on the brand personality perception of mineral water and coffee products. Their study revealed that the package shape significantly affects the Sophistication and Excitement dimensions of mineral water products. At the same time, color affected Competence, Sophistication, and Excitement. For Coffee tin products, color influenced Excitement, Sophistication, and Competence, while shape only affected the Ruggedness.

Boudreaux and Palmer (2007) investigated the effect of design elements of wine labels on perceived brand personality. They evaluated 90 experimental wine labels developed using all possible combinations of three layouts, six colors, and five illustration objects. Their study revealed that, among design elements, the illustration used on the label has the most significant effect on the perceived brand personality. Illustrations used on the label provided a significant effect on all facets of brand personality, greater effect than color or layout. The perception of brand personality among Indian users also attracted researchers' attention. Sheena and Naresh (2012) investigated the brand personality perceptions of various FMCG brands in the Indian market to evaluate its effect on market success. Ten successful Indian brands were assessed against fifteen personality traits such as Sincere, Flavoring, Sentimental, Friendly, Trendy, Young, Unique, Exciting, Modern, Reliable, Successful, Glamorous, Feminine, Masculine, and Inspiring. Their study revealed that the 'Sentimental' feature is commonly present among all ten successful brands. Young, Successful, and Inspiring characteristics were present in most brands.

Although several researchers investigated brand personality, there is debate over whether human personality characteristics are the best way to express brand personalities. Caprara et al. (2001) studied how people described their personalities and brand personalities. They found that the Big Five model (Aaker, 1997) matched up only when people describe their personalities. Their study suggested that factors required to describe human personality and brands do not match. Given the debates over using human characteristics to describe the brand (Caprara et al., 2001; Mark & Pearson, 2001),

the current study used the archetype model (Mark & Pearson, 2001) for assessing user perceptions of brands.

3.4.1 Research Methodology

The current study employed a quantitative Image test for understanding the effect of design elements on perceived brand archetypes. According to Rettie and Brewer (2000), Image tests using traditional quantitative researches are widely used in package design research. Companies use quantitative research insights to optimize the designs (Raz et al., 2008). User perception of archetype characteristics of both the original and the modified designs was assessed among fifty-three Indian users. The users were of the age group 15-44, recruited using social media platforms such as Facebook and Whatsapp. All users were voluntary participants and were not rewarded.

The study was conducted in August 2016. The user group had a mix of 15 females, 33 males, and five users who preferred not to disclose the gender. Forty-four participants were working professionals, and 9 were students. No exclusion criteria were used for user recruitment. Designs were presented one after another, together with definitions of 12 archetypes. The definition of the archetypes proposed by Mark and Pearson (2001) was used for the study (Table 3.1). Users were asked to select all the archetypes that they believe fit the images.

Table 3.1: Definition of Archetypes Used in Experiment 2b (Mark & Pearson, 2001).

Archetypes	Definition of Archetypes
Creator	This brand helps people to try new things in a creative way.
Caregiver	This brand is caring, compassionate, and generous for its customers and society in general.
Ruler	This brand shows leadership and takes its responsibility.
Jester	This brand entertains people in a clownish and funny way.
Regular Guy	This brand is accessible to everyone because it represents a regular guy or woman.
Lover	This brand has a loving relationship with its environment.
Hero	This brand gives customers courage, power, and self-esteem.
Outlaw	This rebellious brand changes existing situations and is not led by the usual social conventions.

Archetypes	Definition of Archetypes
Magician	This brand helps people to create changes in their lives.
Innocent	This brand gives people a happy and positive approach to life.
Explorer	This brand helps people to achieve freedom and independence.
Sage	This brand uses intelligence and analysis to understand the world and to develop themselves

3.4.2 Results

The assessment of archetypes of the original and modified designs revealed that over 90 percent of users perceived that the modified design has archetype differences compared to the original design. The results of user assessments are presented in Figure 3.20. The most dominant archetype of the original design as perceived by the users was "Regular Guy," receiving 47% user agreement, followed by Lover (36%), Innocent (32%), and Caregiver (26%). The most dominant archetype of the modified design was Creator (35% user agreement), followed by Innocent (32%), Lover (28%), and Hero (26%). The original and modified designs received over ten percent difference for Regular guy, Creator, and Magician archetypes. The most significant differences were for Regular Guy and Creator receiving 32% and 17%, respectively. The use of gold-colored design elements drove the suppression of Regular Guy characteristics and improvement in Creator and Magician characteristics of the modified design. Innocent and Lover archetypes were dominant in original and modified designs, driven by the white package color. Archetypes Lover, Jester, and Outlaw were least influenced by the design modification, with Lover and Jester receiving no difference and Outlaw receiving only a 2% difference.

3.4.3 Discussion

Findings from Experiment 2b suggest that user perception of brands could be changed using package graphics. On a 'white' color package, the use of gold-colored design elements would help in suppressing Regular Guy characteristics and improves Creator and Magician characteristics. Modifying the package graphics with gold-colored design elements would help the brand target users who want to try things creatively or make changes in their lives.

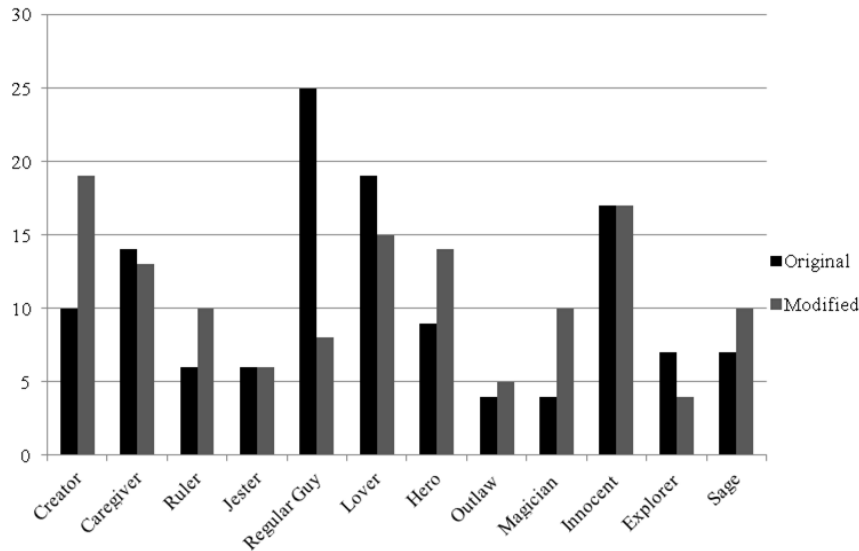


Figure 3.20: Results from the user assessment of archetype characteristics of the original and improved design are presented. On the Y-axis number of users selected, each of the archetypes is presented (N=53).

Prior researchers like Klink and Athaide (2012) proposed creating brand personality using brand names. However, such an approach is not useful for transforming an existing brand's archetype. Changing design elements of package graphics is not the only way of changing brand archetypes as archetypes are created using all elements of a marketing mix. Findings from the current study give a relatively more straightforward and inexpensive way of modifying archetypes of the existing brand compared to modifying more expensive brand elements like the package shape or brand name.

3.5 Experiment 3: Cross-Category Applicability of Package Graphic Design Strategies

Experiments 1 and 2a provided insights on package graphic design strategies suitable for shampoo products. However, there exists a question on the applicability of the design strategy to other categories. A study involving package graphics of a product from the chocolate category was conducted to understand the cross-category applicability of design strategy formulated from Experiment 1. The chocolate category was selected as it gives good differentiation to the shampoo category, i.e., food and cosmetics, and widespread user familiarity.

3.5.1 Research Methodology

The experiment employed an online quantitative Image test for assessing user acceptance of package graphics. The experiment was performed among 39 Indian users, recruited using social media platforms, Facebook and WhatsApp. No exclusion criteria were used for user recruitment. Seventy-two percent of the users were males, and twenty-eight percent were females. Users were predominantly of the young age group. Twenty-six percent were of age group 16-25, seventy-two percent were between 26-35, and two percent were 36-45. All users were voluntary participants and were not rewarded for participation in the study. The study was conducted in November 2016.

3.5.1.1 Materials

A package graphic of a domestic chocolate product was selected using a purposive sampling technique. A modified version of the package graphics was also developed, with the help of a professional designer, and applying the design strategies developed from the shampoo study (Experiment 1).

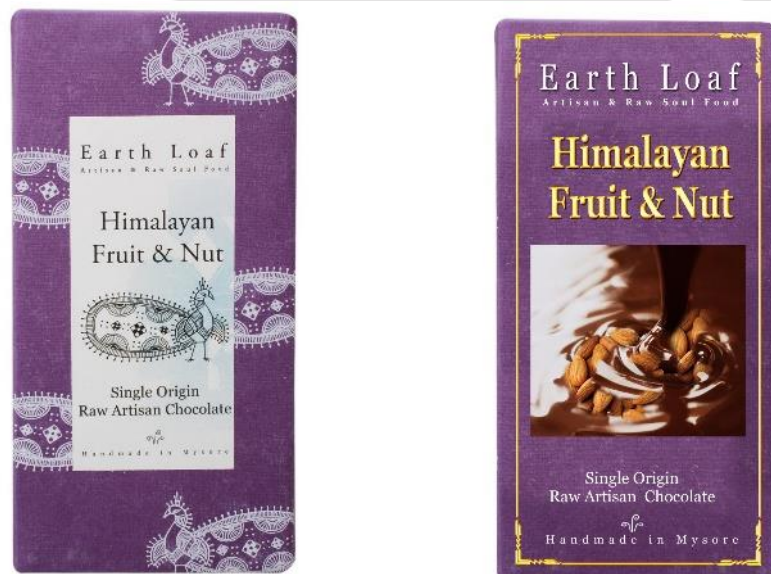


Figure 3.21: Original and modified designs in Experiment 3. Original design on the left and modified design on the right.

The modifications included changing typography and repositioning texts to give the highest weightage to the brand name. The modified design used gold color for writing

the brand name for further enhancing user attention and premiumness. Cluttering in the design was reduced by removing several illustration images used in the original design. Further, an illustration image was introduced in the modified design, representing ingredients in chocolate. Lastly, a gold-colored border was introduced to drive premiumness. The primary color of the package was kept unchanged. The original and modified designs used in the study are presented in Figure 3.21.

3.5.1.2 Questionnaire

The questionnaire included demographic questions like age, gender, nationality, and questions to assess the graphics. Users were asked to rate each image against keywords such as beautiful, premiumness, innovative, and trust, using a seven-point Likert scale. The original design was presented first, followed by the modified design. Further, the purchase intention was also assessed. The original design was positioned at Indian rupee (INR) 50 and modified design at a 30% higher price, INR 65. The modified design was presented at a higher price to assess if the modifications could induce a stronger impulsive urge. For purchase intention assessment, both designs were presented side by side. For users who selected the original design, a second purchase scenario was presented by positioning both designs at INR 50. The questionnaire used for the experiment is presented in Appendix 3.

3.5.2 Results and Discussion

The assessment revealed that the users preferred modified design over the original design by rating it higher for all four keywords. The results of user assessments are presented in Figure 3.22. Further, a statistical analysis was also performed using a t-test to understand the significance. The results are presented in Table 3.2. It can be seen that the difference in user acceptance of modified design for all keywords (Beautiful, Premium, Innovative, and Trusted) are significant with a critical value of $\alpha=0.01$.

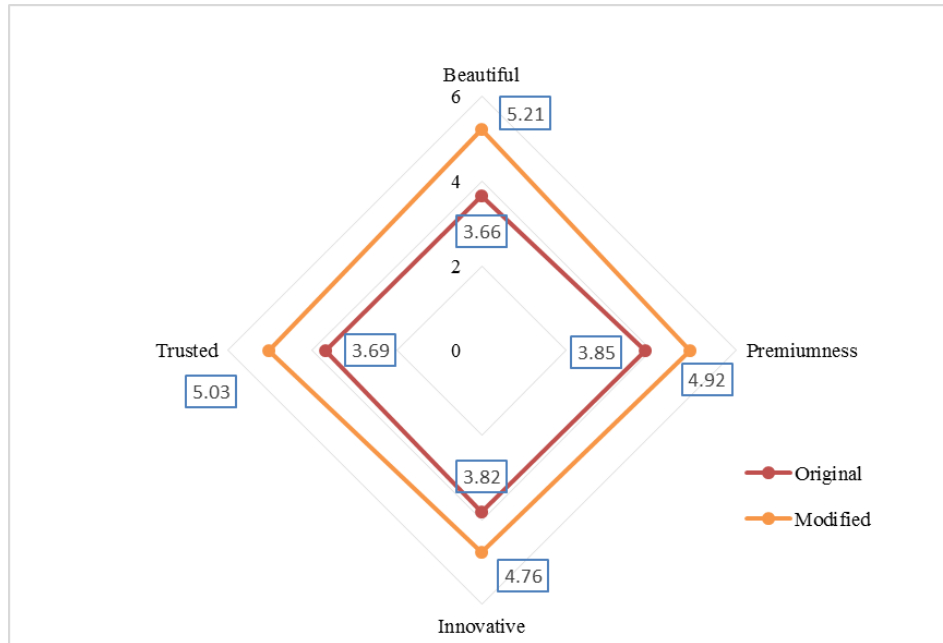


Figure 3.22: Results from user assessment of original and modified design for keywords, Beautiful, Premium, Innovative, and Trusted. The average scores each of the keywords received on a seven-point Likert scale are presented (N=39).

Table 3.2: Statistical analysis of aesthetic acceptance of the original and modified designs.

	Beautiful (Modified-Original)	Premium (Modified-Original)	Innovative (Modified-Original)	Trusted (Modified-Original)
Average	1.538462	1.076923	0.948718	1.333333
SD	1.619717	1.691848	1.716004	1.767147
Df	38	38	38	38
N	39	39	39	39
T	5.93171	3.97517	3.452639	4.711926
P	3.53E-07	0.000152	0.000689	1.63E-05

The results suggest that package graphic design strategies improved aesthetic acceptance and overall quality perception of the product, as evidenced by the higher rating for keywords Innovative and Trusted. Further, purchase intention assessment

revealed that 74% of the users would buy the modified design, priced at INR 65 over the original design priced at INR 50. Higher purchase intention suggests that the modified design was able to induce a stronger impulsive urge. When both designs were presented at the same price, 60% of the users selected the original design switched to the modified design. Users' willingness to pay a higher price for modified design suggests that the design strategy exerted a higher purchase trigger than the original design.

3.6 Chapter Summary

Experiments conducted in this chapter helped develop package graphic-based design strategies suitable for shampoo and chocolate products. Since chocolates and shampoos are mostly impulsive buying categories, these strategies may be relevant to a broader set of impulsive buying products. Experiments 1 and 2a provided learnings on the ranking of importance of design elements and essential design elements needed for successful package graphics. Based on the experiments, it can be concluded that, among design elements, the brand name typography should be given the highest importance. The presence of a logo or ingredient visuals will also help in driving attention. It should be given the second-highest weightage after the brand name. Coloring the cap or cap opening area with colors of the logo would also help capture user attention. The use of a gold band on the cap would drive premiumness. For products that use nature or natural ingredient communication, colors of ingredient visual may be used to highlight the cap. Cluttering the design with too many texts and visuals would make design unattractive. Information with higher importance should be placed towards the top of the bottle. Information about the product type, benefit, and quantity may be placed towards the bottom. Providing too much information towards the bottom may make the design unattractive.

Learnings from Experiment 2b suggest that package graphic-based design strategies help change the overall perception of the brand. Findings from Experiment 3 confirm that the design strategies developed from Experiment 1 are applicable across multiple categories. The results from experiment three also suggest that improving the aesthetic appeal result in the willingness to pay a higher price. The modified design induced a much stronger urge to buy than the conventional design. It indicates that package graphic-based design strategies developed from this chapter are suitable for impulsive buying product categories.

Chapter 4

Decision Making in Planned Purchasing and Customization-Based Design Strategy

Chapter Abstract: This chapter investigates the factors influencing decision making in planned purchasing. User studies involving qualitative and quantitative methods were conducted to understand factors influencing decision making and relative importance. Further, studies involving customization-based design strategy were also explored to enhance user motivation for planned purchasing.

4.1 Introduction

Previous chapters of this thesis introduced user behavior models in product purchases and state-of-the-art literature reviews on user behavior. Chapter three investigated package graphic-based design strategies to influence purchases of hair shampoo and chocolate products. Although there is an abundance of research on factors influencing impulsive purchase behavior, research on understanding factors influencing planned purchasing is limited. The existing research on planned to purchase focused on user behavior in purchasing a specific category of products like organic products and halal food. However, research on understanding factors influencing brand selection within a category are scarce. This section of the thesis attempts to close the gap by investigating user behavior in brand selection within a planned purchase category. Insights from the study would provide relevant information for product designers and marketing managers to develop strategies to win purchase intention. Further, this chapter also investigates a customization-based design strategy for planned purchasing.

4.2 Experiment 1: User studies to understand factors influencing Planned Purchase decisions

Decision making in planned and impulsive purchases are expressively different (Bellini et al., 2017). Impulsive purchases are unplanned (Beatty and Ferrell, 1998). On the other hand, planned purchases are pre-planned (Yazdanpanah & Forouzani, 2015). In a planned purchase, users have a prior identified product before entering the shop (Piron, 1993). Planned behavior is a useful model in explaining green products (Chaudhary & Bisai, 2018; Hsu et al., 2017; Verma & Chandra, 2018) and organic food purchases

(Scalco et al., 2017). In this section, in-context (shopping) user studies involving qualitative and quantitative methods were performed to get insights on factors influencing planned purchase decisions.

4.2.1 Research Methodology

User studies were conducted to understand purchase behavior and identify factors influencing brand selection in planned purchasing. The study employed qualitative interviews among users from several Asian markets such as Taiwan, South Korea, Hong Kong, China, and Thailand. A total of 114 users participated in the study. The study in South Korea, Hong Kong, and China was conducted using an online Consumer Consulting Board platform. The research platform was developed by InSites Consulting, a professional market research agency based in the United Kingdom. The online platform was used due to the large geographical size of these markets. Besides, the online platform made user recruitment easier. The user interface used for the consumer consulting board study is presented in Figure 4.1.

For Thailand and Taiwan, in-person interviews were conducted in Bangkok and Taipei, respectively. A professional market research agency called IPSOS was employed for the research. In both cities, four focus group discussions (groups of four users each), five one-to-one depth interviews, and two shop-along interviews were conducted (Figures 4.2 to 4.4). The users were of age group 25-55. Only users who had prior experience of buying products from the category were included in the research. Besides, users had to be expressive and willing to share their opinions to be included in the research. The interviews were conducted in Thai and Chinese languages, respectively, with a qualified moderator and simultaneous translator. All users were rewarded for their time. The market research agencies chose the reward as per the standard practice in the market. Rewards given were confidential information of the research agency, hence not reported here. The studies were conducted from May to August 2016.



Figure 4.1: Experiment set-up used for online studies.



Figure 4.2: Shop along study with user (Thailand).



Figure 4.3: Shop along study with user (Thailand).



Figure 4.4: Shop along study with user (Taiwan).

4.2.1.1 Questionnaire

For the qualitative study, users were asked to describe their brand selection process within a familiar planned purchasing category. Questions included: What made them buy the product in the first place? Before buying, did they search for any information? Where did they search for information? What convinced them to select the products? How did they decide on which brand to buy? Which websites do they usually use to search for product information? Which stores do they usually go for buying

products? What factors are essential for deciding which brand to buy? What is the effect of various determinants like word of mouth, TV programs, online articles, key opinion leaders, in-store presence of the brand, and online reviews? User responses were analyzed using qualitative content analysis. Qualitative content analysis is a structured and systematic method of analyzing text data (Maxwell, 2005). The questionnaires used for the experiment are presented in Appendix 4.

4.2.2 Results and Discussion

The qualitative study revealed key determinants involved in the decision-making of brand selection in planned purchasing.

Family and Friends Recommendation: Family and friends recommendation, particularly those who have prior knowledge and experience in the category, had the most significant influence. It is driven by the fact that family members and friends are well-wishers. Moreover, they do not profit from the product purchase. Family and friends recommendations are vital when users are new to a category. E.g., when a new mom buys baby care products, recommendations from family and friends are the starting point for her information-gathering journey.

Expert Opinion: Across the markets, it was observed that an opinion from the category expert had a significant influence on purchase decisions. It is mainly because of the expert's technical knowledge about the category and the product. Users also perceived that the experts have no monetary gain from the purchases, which adds credibility.

Online Reviews: Users gave great importance to online ratings and reviews. It was observed that users across all markets referred to ratings and reviews before making a significant purchase decision. In different markets, users referred to different online sources. E.g., in Thailand, users mostly referred to an online forum called pantip.com, while in Taiwan, users mostly referred to the yahoo forum. Cultural differences were also observed in online user behavior. In China, South Korea, and Taiwan, users were very open to purchasing online; provided positive user reviews. In contrast, users in Hong Kong and Thailand preferred to buy at a reputed physical store instead of online. It is mainly because users in Hong Kong and Thailand were interested in the store browsing and concerned over fake products on online platforms.

Brand Website: Users visited brand websites and read the product information to gain knowledge about the category. Users trust the information provided on the brand website. They believe that authorities in the market monitor the brand websites and penalize companies for false or misleading information.

Brand Advertisements: Advertisements had very little influence on planned purchases. TV advertisements helped to get a big brand image and credibility. Big brand image increased user confidence, trust, and value perception.

In-store Presence of the Brand: Users associated the products with better in-store presence to a big brand image, a positive driver for planned purchasing. Although purchase decisions are not made at the store, past observations from store browsing influence the purchase decisions.

In-store Sales Consultants: Branded in-store consultants had minimal influence in planned purchase decisions. It is because of their perceived lack of technical knowledge (education) and their profitability from sales.

Shop-along experiments with the users in Taiwan and Thailand showed behavioral differences between these markets. In Taiwan, users went to the store, completed the shopping exercise in a flash by selecting the product they planned to buy. When asked, they mentioned that they had a clear idea about what product and brand to select. In Thailand, users spend a significantly higher time at the store. They browsed through different products, in-store sales promotion materials, asked the store consultants questions, and read the detailed product information. The users mentioned that spending time in the store is part of their information gathering for future purchases. No difference was observed among the users from the same market. It was also observed that stores in Thailand have a higher number of in-store consultants than similar retail shops in Taiwan. Shop owners have taken measures to address store browsing behavior.

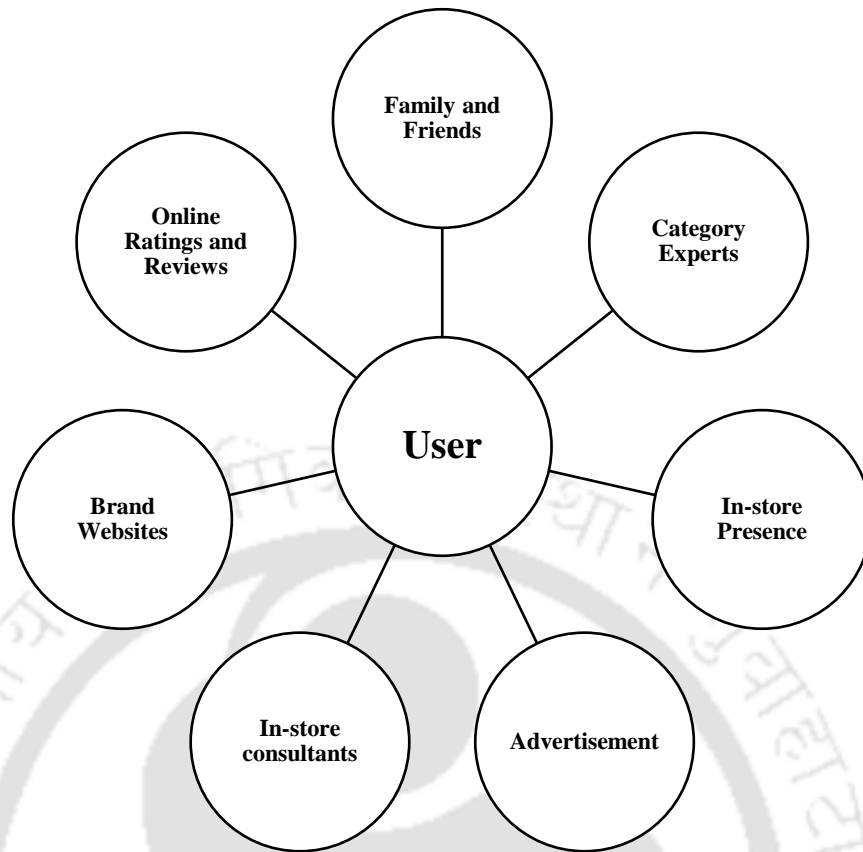


Figure 4.5: Factors influencing the purchase decision making in planned purchasing.

4.3 Experiment 2: Quantitative User Study

The qualitative user studies revealed several factors influencing brand selection in planned purchasing. These include recommendations from family members and friends, the recommendation from a category expert, e.g., a dentist for toothpaste, online ratings and reviews, information present on brand websites, brand advertisements, in-store presence, and store consultants. Based on the insights, three hypotheses were formulated about the relative importance of the factors in influencing the brand selection in planned purchasing.

H1: Recommendations from family members and friends have a more substantial influence than a recommendation from a branded store consultant.

H2: An informative program by a category expert has a more significant influence than a branded TV advertisement.

H3: Information provided on the package has a higher level of influence than aesthetic appeal.

4.3.1 Research Methodology

A quantitative study was conducted among Asian users to examine the hypotheses. Users were recruited using social media platforms, Facebook and WhatsApp. A total of sixty-three Asian users participated in the study; 31 were Indians, 19 were Filipinos, and 7 were Singaporeans. Thirty-six participants were males, and 27 were females. No exclusion criteria were used for recruitment. All users were voluntary participants and were not rewarded for participation.

The users were given the context of the shopping survey. They were asked to imagine that they are in the process of decision making of a Bluetooth headset product purchase. They were also asked to imagine that they have already completed the information searching process. With that background, users were asked a few questions about factors influencing the decisions. A seven-point Likert scale was used for asking the questions. Questions about the influence of factors such as recommended by a friend or a family member, a sales consultant's recommendation, the aesthetic appeal of the product, information about the product features, TV advertisement, and an informative program on TV by a technical expert were included. Statistical investigations were performed using a t-test with a critical value of $\alpha = 0.05$.



Imagine you are in the process of making purchase decision about a product (e.g. a Bluetooth Headset). You haven't used such a product before. You know that there are several brands offering such products (e.g. Sony, Samsung, Apple, LG, Jabra, Bose etc...). You have done some information searching, however haven't made your selection yet. Please answer to following questions with this context.

Figure 4.6: The experiment set up used for the quantitative user study.

4.3.1.1 Questionnaire Development

The questionnaire for the study was developed based on findings from the qualitative research. Questions included demographic questions like gender, age group, nationality, and questions on factors influencing purchase decision making. These included,

1. One of your friends is using a Bluetooth Headset. On a scale of 1 to 7, how likely are you to make the purchase decision based on the 'Friend's recommendation'?
2. You know that one of the family members (e.g., cousin, uncle) uses a Bluetooth Headset. On a scale of 1 to 7, how likely are you to make the purchase decision based on the 'Family member's recommendation'?
3. You saw staff from the brand (e.g., a salesperson). On a scale of 1 to 7, how likely are you to make the purchase decision based on the 'Salesperson's recommendation'?
4. You saw an advertisement for the brand on TV. On a scale of 1 to 7, how likely are you to make the purchase decision based on the 'TV advertisement'?
5. You saw an informative program on the TV (e.g., an engineering expert talking about the product). On a scale of 1 to 7, how likely are you to make the purchase decision based on the 'Expert's opinion'?
6. You saw the product at the store. On a scale of 1 to 7, how likely are you to make the purchase decision based on the 'Beautiful look'?
7. You saw the product at the store, you read about the product and its features. On a scale of 1 to 7, how likely are you to make the purchase decision based on the 'Product information'?

The questionnaire used for the study is presented in Appendix 5.

4.3.2 Results

Analysis of survey results provided insights on factors influencing the brand selection in planned purchases. The average score each of the determinants received are presented in Figure 4.7. A comparative analysis of the level of influence of different factors was performed to validate the hypotheses. Results from the comparative analysis are presented in Table 4.1. Comparing the influence of friends and family members'

recommendations with a sales consultant's recommendation revealed that users gave higher importance to friends and family members' recommendations. Based on the t-test, the difference in the importance of a friend or family member's recommendation to a sales consultant's recommendation was significant, with a critical value of $\alpha=0.05$, thus supporting H1. Although recommendations from friends, family members, and sales consultants are broadly word of mouth (WOM), the results suggest that WOM from different sources have a difference in importance. A higher score for friends and family member's recommendation is possibly driven by the fact that friends and family members are user's well-wishers. Besides, unlike salespersons, friends and family members do not have any monetary gain from the purchase.

Comparing the effect of TV informative programs and TV advertisements showed that the informative program has a more significant influence, with a critical value of $\alpha=0.05$, thus supporting H2. Informative programs and traditional advertisements are broadly advertisements. However, informative programs could be more effective in driving user motivations in planned purchasing. A comparison of the influence of the beautiful look of the product and product features was also performed. Based on the t-test, information about the product has significantly more influence than the product's beautiful look, with a critical value of $\alpha=0.05$, thus supporting H3. Although a beautiful look could drive impulsiveness, it is relatively less relevant in planned purchasing.

Table 4.1: Statistical analysis of factors influencing the planned purchase of Asian Users (N=63).

Variables	Average	p-value
Friend's Recommendation- Sales Consultant Recommendation	0.508	0.015
Family Member Recommendation -Sales Consultant Recommendation	0.635	0.003
TV Informative Program by Category Expert-TV Commercial	1.048	0.0000004
On-pack information about Product Features- Beautiful Look of the product	0.794	0.00004

The results suggest that designers in planned purchase categories should give higher importance to product features over aesthetics. Marketers should give higher importance to the communication of product features over commercial advertisements.

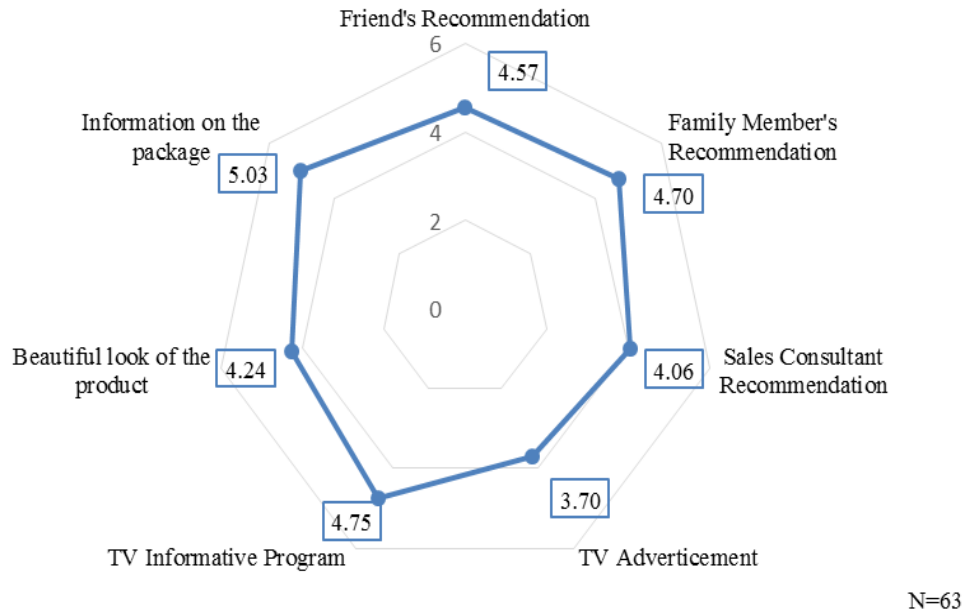


Figure 4.7: Results from the analysis of factors influencing the planned purchase behavior of Asian Users: The average score from seven-point Likert scale testing among 63 users is presented. A higher number represents a higher level of influence in planned purchasing.

4.4 Experiment 3: Customization-Based Design Strategies

Experiments 1 and 2 in the chapter provided insights on factors influencing purchase decisions in planned purchasing. After identifying determinants, it is essential for design managers to develop market-winning design strategies. This section of the thesis investigates a customization-based design strategy. Customization is widely recognized as a viable business model for companies in various sectors (Deselnicu et al., 2016; Grafmüller et al., 2018).

4.4.1 Research Methodology

An online user study involving the shopping of products from sports shoes and pen categories was conducted among Indian users to assess the acceptance of

customization-based design strategies. The study provided users with two customization options: personal customization of imprinting username on the product and mass customization of color. Sports shoes and pen categories were selected as they have a significant difference in purchase frequencies. About 64% of the users indicated that they would purchase a pen at least once every three months. In comparison, only 15% of users purchase sports shoes at that frequency. Besides, these categories are relevant to both male and female users. Investigating such a category would help in understanding the gender differences in user perceptions. User assessments were performed using an online survey among 54 Indian users of age group 16-45.

Sixty-seven percent of the users were males, and 33% were females. Users were recruited using social media platforms like Facebook and WhatsApp. All users were voluntary participants and were not rewarded for participation. No exclusion criteria were used for user recruitment.

Users were presented with two scenarios of product purchase for each category. In each scenario, a standard option and a customized option were provided. Users asked to select the option they would buy if they are doing online shopping. Perception about personal customization was assessed by asking the user to select a standard option with no text printed or a personal customized option with their name imprinted on the product. For mass customization, users were presented with a standard option and a customized option. The standard option included three pre-defined color combinations. The customized option allowed users to design their version by merely dragging and dropping colors (13 colors) to six different locations. Users were also asked about willingness to pay a higher price for customized options. Four choices were given; willingness to pay up to 5% more, up to 10% more, more than 10%, and unwilling to pay a higher price for customization. The study was conducted in October 2016.

4.4.1.1 Materials

The experiment set up used for the study is presented in Figures 4.8 to 4.11. Users were presented with a standard option and a customized option side by side and asked to select the option they prefer to buy. The questionnaires used for the study is presented in Appendix 6.



Figure 4.8: Test product (pen) presented to the user for personal customization.

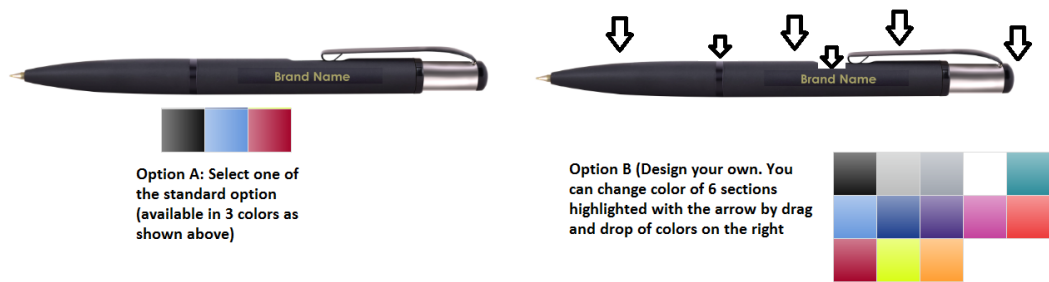


Figure 4.9: Test product (pen) presented to the user for customization of color.



Figure 4.10: Test product (Sports shoe) presented to the user for personal customization.

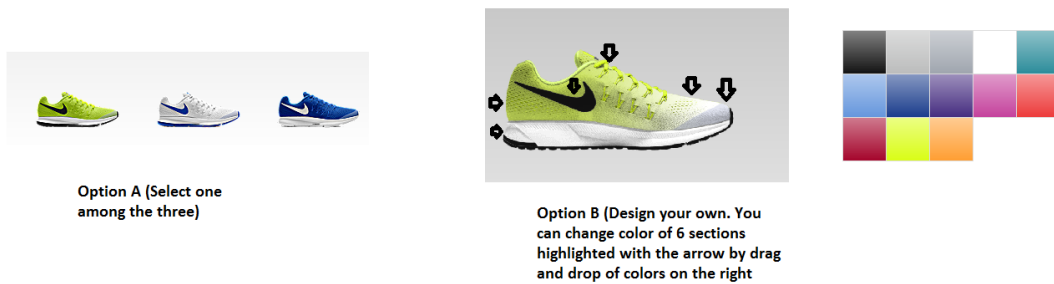


Figure 4.11: Test product (sports shoe) presented to the user for customization of color.

4.4.2 Results and Discussion

User preferences assessment revealed that about 83% of the users preferred customization in at least one of the four scenarios. Among users' preferred customization, over 75% expressed willingness to pay a higher price for at least one of the four customized options.

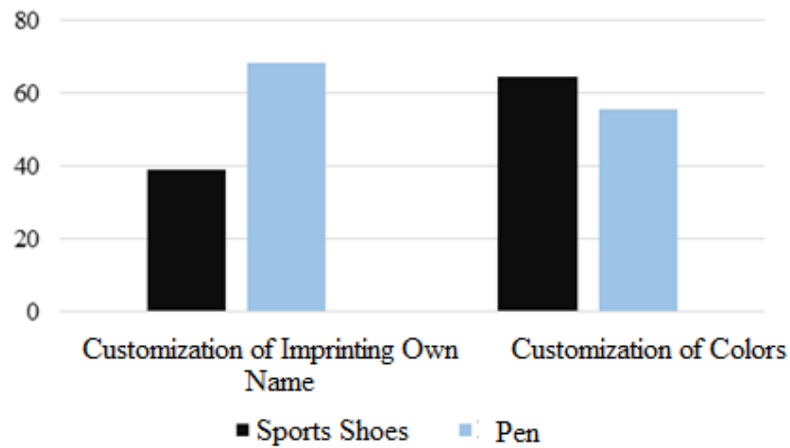


Figure 4.12: Results from the assessment of user preference of customization (N=54): Y-axis represents the percent of users who selected the customized option for each of the scenarios.

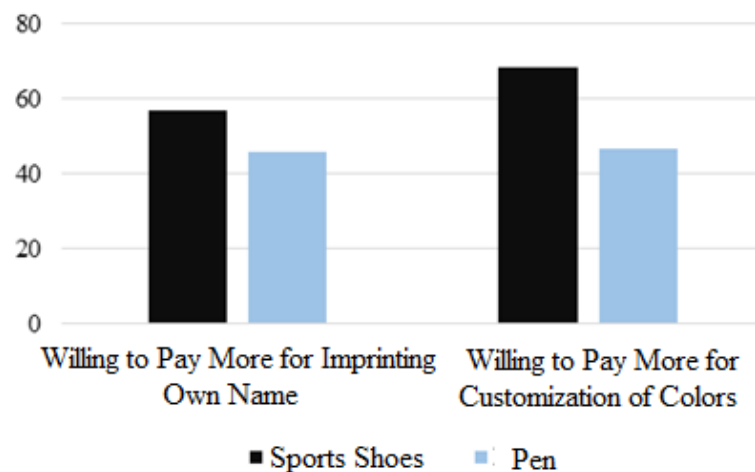


Figure 4.13: Results from the assessment of the user's willingness to pay a higher price for customized products (among users who opted for customization).

The results of the study are presented in Figures 4.12 and 4.13. For sports shoes, personalized customization with name imprinted was less preferred (38.9%) than the standard option (61.1%). However, for colors, customization was preferred (64.8%) over standard colors (35.2%). Since sports shoes are mostly used outdoors, in situations where visibility of imprinted name is low, users did not find value for name imprinting. However, customization of color provides a unique and differentiated product. Besides, color has excellent visibility under usage.

For the pen, 68.5% of the users preferred customization with name imprinted. Color customization was preferred by 55.6% of users. Since pens are usually used in places with excellent visibility, e.g., in classrooms and meeting rooms, users perceived it as value-adding to have name imprinting. Among the users who accepted customization, most expressed willingness to pay a higher price for the customized shoes (Figure 4.12). Only about 45% of users were willing to pay a higher price for a customized pen. It is potential because of the higher purchase frequency of the pen. About 57% of users mentioned that their purchase frequency of sports shoes is less than once every six months. Lower purchase frequency potentially resulted in the willingness to pay a higher price for customized sports shoes. In contrast, over 68% of users buy a pen at least once in three months. This higher purchase frequency possibly resulted in reduced interest in paying a higher price for customization.

Gender-specific differences were also observed in preference for customized products. Over 94 % of female users expressed interest in customization, while only about 78% of male users were interested in customization. Among the users opting for customization, 82% of females expressed willingness to pay a higher price for relevant customization. In contrast, among male users, it was only 71%.

4.5 Chapter Summary

Experiments 1 and 2 provided qualitative and quantitative insights on user behavior in planned purchases. These insights are particularly relevant to product designers and marketers designing and commercializing products in planned purchase categories. Experiment 1 revealed that several factors influence users in the planned purchase. These include family and friends recommendations, category expert opinion, online reviews, brand websites, brand advertisements, in-store presence of the brand, and sales consultants. Further, Experiment 2 suggested that, in planned purchasing

categories, friends and family recommendation has a higher level of influence than a sales consultant recommendation. It is consistent with findings from Gil et al. (2007). Gil et al. studied the role of the family as an influencing factor in brand equity formation. They showed that positive information provided by the family influences the perceived quality and formation of brand associations. The current study extends their findings to purchase intention. In a planned purchase, users gave more importance to the actual product benefits. They were less influenced by the sudden urges triggered by a sales consultant recommendation.

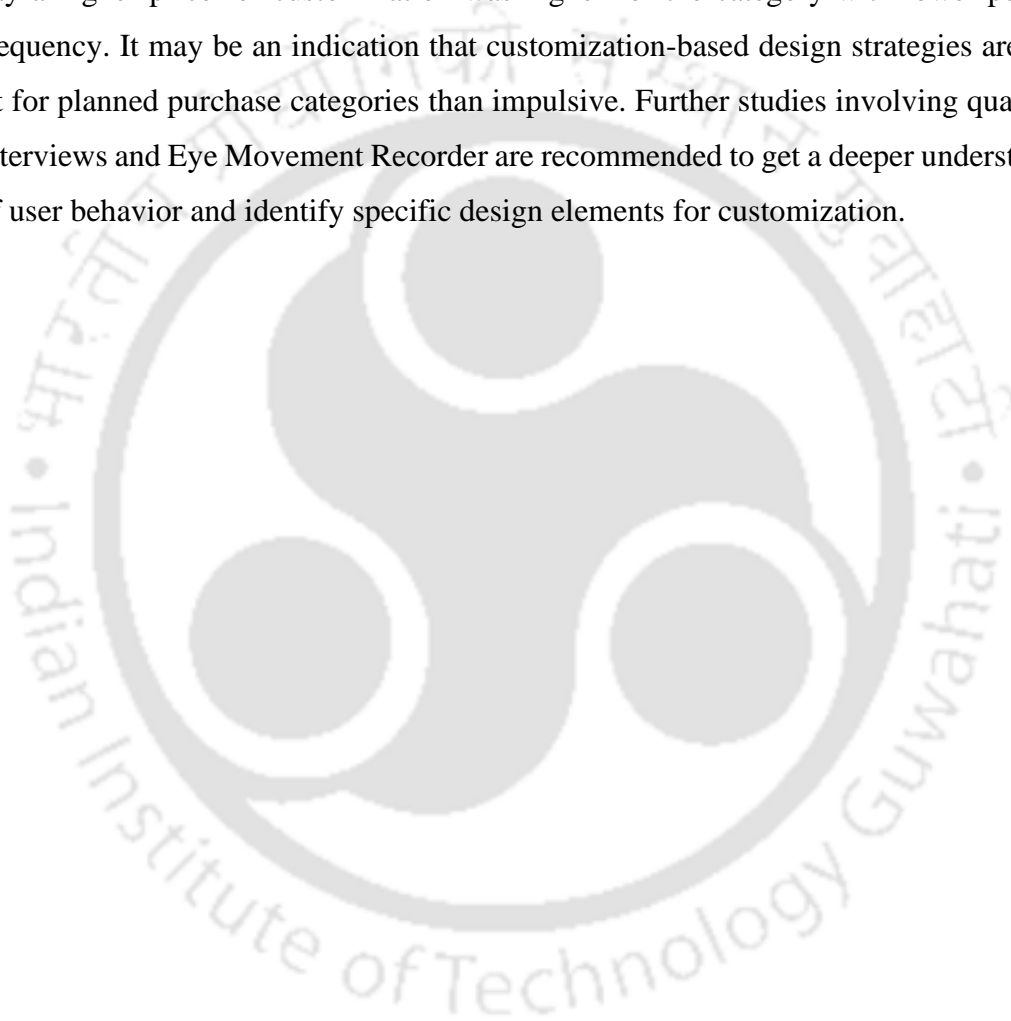
Besides, users also gave significantly higher importance to product information programs than traditional TV commercials. This finding is also in agreement with Biswas et al. (2006) and gives additional reasoning for their finding. Biswas et al. studied the differences between celebrity and expert endorsement on risk perceptions. They found that, for high technology-oriented products, an expert endorsement has a more substantial effect than a celebrity endorsement in reducing risk perceptions. The planned purchase nature drives the more potent effects of expert endorsement.

- Further, the study also suggests that, for planned purchase categories, information about the product features has significantly higher importance than aesthetics. It is also supportable by Chang and Wildt (1994), which reported that product information is indirectly connected to perceived quality, which positively influences purchase intention.

Findings from Experiments 1 and 2 have several managerial implications, some of which are cited here. Based on the study, product designers in planned purchase categories should give higher priority in bringing product features to life than aesthetics that trigger the sudden urge to buy. It should also be noted that designers should not ignore product aesthetics as it could, in some circumstances, negatively affect sales performance (Yamamoto & Lambert, 1994).

It is essential to identify whether the product belongs to the impulsive or planned purchase category before applying the design principles. For example, purchase in the chocolate category could be triggered by the aesthetic appeal. In contrast, information about the product might be more critical for milk or baby food categories. It is because chocolate is an impulsive purchase category, while milk and baby foods are planned purchase category. The study suggests that a holistic commercialization plan going beyond in-store executions is required to win purchase intention in the planned purchase.

Experiment 3 provides valuable insights to designers and marketing managers. The study revealed that Indian users would prefer customization, provided relevant features are used. Findings from the study are consistent with Moon et al. (2008) and Mehra et al. (2015) on Indian user preference for customization. Further, Experiment 3 showed that users are willing to pay a higher price for relevant customization. It suggests that designers should use category-specific understandings to decide which features should be offered for customization. It was also observed that the user's willingness to pay a higher price for customization was higher for the category with lower purchase frequency. It may be an indication that customization-based design strategies are better fit for planned purchase categories than impulsive. Further studies involving qualitative interviews and Eye Movement Recorder are recommended to get a deeper understanding of user behavior and identify specific design elements for customization.



Chapter 5

Role of Product Experience in Purchase Decisions and User-Based Brand Equity

Chapter Abstract: This chapter presents qualitative, quantitative, and in-context user studies to understand user behavior in product purchases. A quantitative survey-based user study was conducted among Indian users to assess the role of product experience in product purchases. The study revealed that good user experience and product quality are the two most important factors for product purchase. The study also revealed that good user experience is an essential factor in establishing a long-standing user-brand relationship. Besides, an in-context user study involving physical laboratory store and point of sale product experience was performed to assess the role of product experience in the user-based brand equity. The study revealed that product experience and user-based brand equity are directly related.

5.1 Introduction

India is a fast-growing consumer goods market. Various factors influence the users in their purchase decision-making. India has a fast-growing consumer goods industry, offering tremendous opportunities to companies. The industry is expected to grow at 23.15% (India Brand Equity Foundation, 2020). The main contributors to this growth are changing lifestyles, increased disposable income, growing awareness, and easier access to products. Indian users have a habit of daily purchase of consumer goods. They do not habitually buy a monthly stock of products due to value consciousness (Kaur & Singh, 2007).

Several factors influence users in purchase decisions. Many purchase decisions, especially impulsive buying decisions, are made at the store (Beatty & Ferrell, 1998; Rook, 1987). In contrast, planned purchasing decisions are made before entering the store (Yazdanpanah & Forouzani, 2015). Product designers and marketing managers need to understand these factors for developing market-winning product innovations (Bettman et al., 1998). This section of the thesis aims to understand the importance of product, package, and brand-related factors on consumer goods purchases.

5.2 Experiment 1: Role of Product Experience in Purchase

Literature reviews and experiments conducted in previous chapters provided learnings on factors influencing purchase decisions in planned and impulsive purchases.

The experiments reported in chapters three and four also provided insights on design strategies to drive user acceptance and user motivations. This section of the research integrates the learnings from literature reviews and experiments in previous chapters and put it into a test in the Indian market context.

5.2.1 Research Methodology

A quantitative survey-based user study was conducted among 126 Indian users. Users were recruited using social media platforms such as Facebook and WhatsApp. Users were of age group 18-54, in which about 94 percent were between 24 to 45 years old. About sixty-three percent of the participants were males. Only users who buy consumer goods were included in the research. No other exclusion criteria were used for user recruitment. The importance of various product, package, and brand-related attributes in influencing consumer goods purchase was assessed. Product-related features such as texture, fragrance, quality, efficacy, and usage experience were selected. For package, color, shape, beautiful look, and convenience of usage were selected. For brand related attributes, brand name, advertisements, country of origin, word of mouth (WOM), and value for money were chosen. A five-point Likert scale was employed to assess the importance of these factors. All users were voluntary participants and were not rewarded. The questionnaire used for the study is presented in Appendix 7. The questionnaire's reliability was assessed using Cronbach alpha, which resulted in 0.842, confirming reliability. The study was conducted from October to November 2018.

5.2.2 Results and Data Analysis

The median scores obtained from Likert scale analysis are presented in Figure 5.1. For the Likert scale, 'mean' has a higher chance of distorting the data. The options on a Likert scale are mathematically equidistant. However, their emotional distances may be different. For example, a person is likely to perceive the distance between 'neutral' and 'agree' as more significant than between 'agree' and 'strongly agree' on a 5-point scale. Knapp (1990) suggested that a value of 3.5 is meaningless as it cannot be expressed as agree and a half. The median would be more accurate for the Likert scale. It gives the option that the highest number of users favored (Allen & Seaman, 2007). Hence 'median' was used for the data analysis.

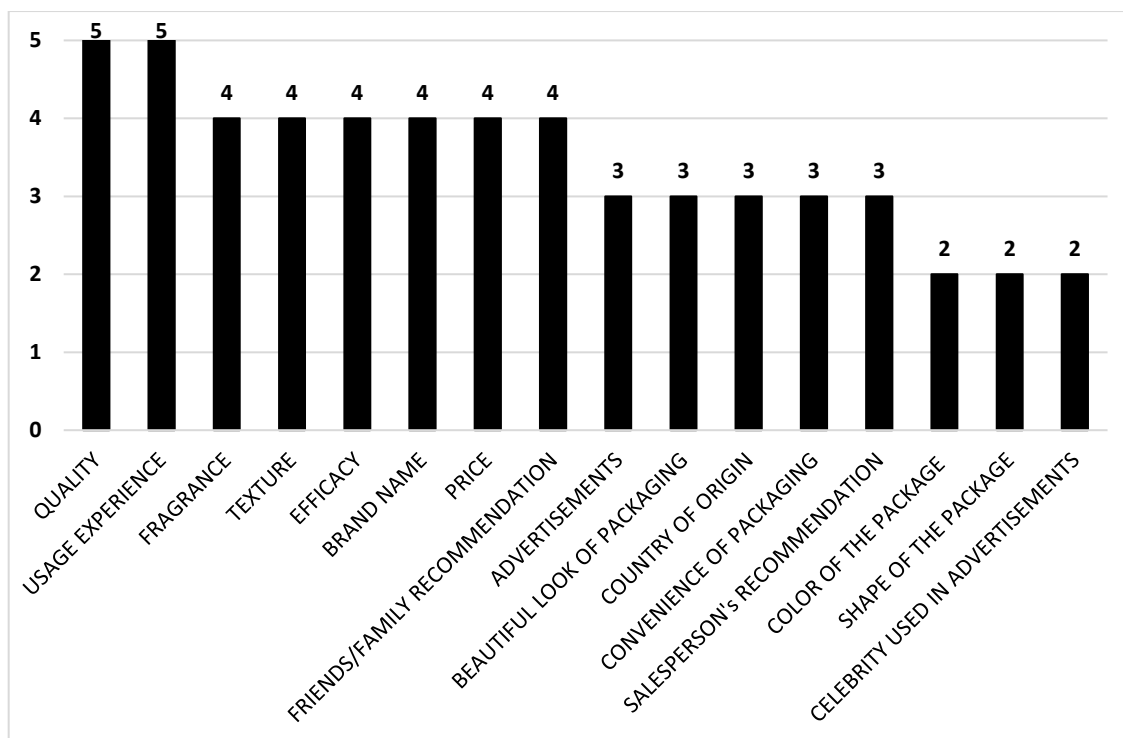


Figure 5.1: The analysis of factors influencing Indian users' consumer goods purchase: Median scores from a five-point Likert scale are presented (N=126). A higher number represents a higher level of influence.

The median scores obtained from Likert scale analysis are presented in Figure 5.1. For the Likert scale, 'mean' has a higher chance of distorting the data. The options on a Likert scale are mathematically equidistant. However, their emotional distances may be different. For example, a person is likely to perceive the distance between 'neutral' and 'agree' as more significant than between 'agree' and 'strongly agree' on a 5-point scale. Knapp (1990) suggested that a value of 3.5 is meaningless as it cannot be expressed as agree and a half. The Median would be more accurate for the Likert scale. It gives the option that the highest number of users favored (Allen & Seaman, 2007). Hence 'median' was used for the data analysis.

Based on Figure 5.1, product experience related features like the quality of the product and product experience received the highest median score among all attributes. Product attributes like 'Efficacy', 'Fragrance', and 'Texture' also received high scores. 'Brand name', 'Price (value perception) ', and 'Word of mouth' from family and friends' received relatively higher scores than advertisements, celebrity, and salespersons recommendations. Package attributes came as relatively less important than product

attributes. Among the package attributes, 'Convenience' and 'Beautiful look' received a relatively higher score than design elements like shape and color.

In addition to data analysis using Median, statistical analysis using a t-test was also performed to understand the importance of 'good usage experience' compared to brand and package attributes. The results are presented in Tables 5.1 and 5.2. Table 5. 1 shows that the importance of good user experience is significantly higher than all brand-related attributes with a p-value of <0.001. Further, Table 5.2 shows that the importance of good user experience is also significantly higher than package-related attributes with a p-value of <0.001.

About 66.7% of users indicated that they had some awful experiences from their past product purchases. The result of the analysis of factors caused dissatisfaction is presented in Figure 5.2. Eighty-one percent of the users indicated that unpleasant usage experience is one of the top three factors caused purchase dissatisfaction. High price (50.8%) and unpleasant fragrance (43.7%) were the second and third. All these factors are related to the product experience. The primary reason for the 'price' causing dissatisfaction is because product experience failed to meet the value expectations. An unpleasant fragrance is also product experience related.

Table 5.1: Results from statistical analysis using a t-test for comparing the importance of 'good usage experience' compared to brand-related attributes (N=126).

	Good Usage Experience	Brand Name	Price	Country of Origin	Family and Friends Reco.	Advt.	Celebrity	Sales Persons' Reco.
Mean	4.28	3.9	3.83	3	3.71	3.06	2.22	2.67
Std. dev	0.81	0.96	0.86	1.19	0.91	0.88	1.01	0.84
P-value		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Table 5.2: Results from statistical analysis using a t-test for comparing the importance of ‘good usage experience’ compared to package-related attributes and product texture (N=126).

	Good Usage Experience	Color of Package	Shape of Package	Beautiful Look of Package	Convenience of Package
Mean	4.28	2.48	2.39	3.13	3.34
Std. dev	0.81	1.02	1	1.01	0.96
P-value		<0.001	<0.001	<0.001	<0.001

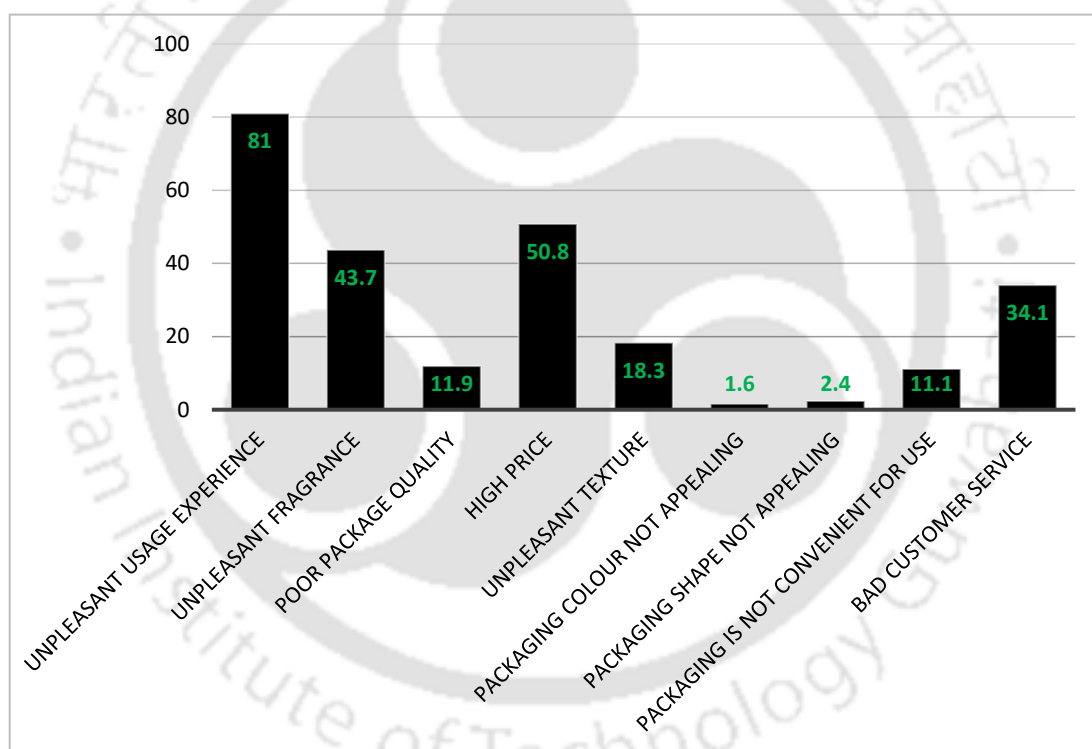


Figure 5.2: Factors contributing to user dissatisfaction after consumer goods purchase: In the Y-axis, the percent of users selected the factor as one of the top three factors is presented (N=126).

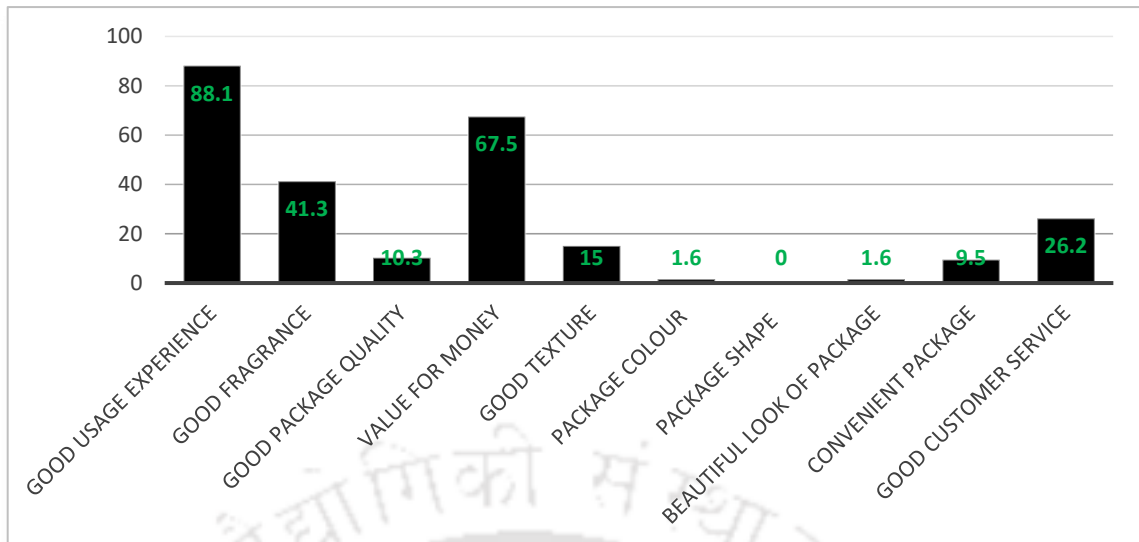


Figure 5.3: Factors important for re-purchasing a consumer goods product: In the Y-axis, the percent of users selected the factor as one of the top three factors for repeat purchase is presented (N=126).

The result from the analysis of factors essential for the repeat purchase of a consumer goods product is presented in Figure 5.3. Good product experience, value for money, and pleasant fragrance are the top three factors for the repeat purchase. Repeat purchase is vital for establishing a long-lasting user-brand relationship. Over 88% of the users indicated good user experience as one of the top three factors in making a repeat purchase decision. Based on the study, aesthetic elements such as the beautiful look of the package, color, and shape had the least influence in repeat purchase.

5.2.3 Discussion

Experiment 1 provided insights on the importance of various brand, product, and package-related attributes on Indian users' consumer goods purchase. The study revealed that good user experience and quality are the two most essential factors users expect from consumer goods. Further, unpleasant usage experience is the most critical factor that causes purchase dissatisfaction, with over eighty percent user agreement. Similarly, when the likelihood of repeat purchase is considered, the same factor came into action again. Based on this, it can be concluded that user satisfaction and repeat purchase are governed mostly by good user experience. Findings from current research are consistent with Kempf and Smith (1998). They suggested that product usage experience, especially the

first trial, is an essential factor influencing user perception of the brand and purchase intentions.

Findings from the current study are particularly relevant to marketers who commercialize consumer goods products in the Indian market. Based on the current study, companies should spend more effort to provide product experience during decision making. Companies could create different experiences, such as sensory, affective, creative cognitive, physical, and social-identity experiences, to provide holistic experiences (Schmitt, 1999). It would help companies drive user satisfaction and repeat product purchases, which are essential for establishing long-standing relationships. Further, user satisfaction would also help improve willingness to pay the price premium and create positive word of mouth (Gil et al., 2007).

Although factors like advertisements, celebrities, and package-related attributes came as relatively less important factors, companies should not completely ignore them. Advertisements are essential in driving brand awareness and contributing to the trial usage of the product (Buil et al., 2013). Package attributes like shape and color play a role in brand personality formation and creating an urge to buy (Silayoi & Speece, 2004).

The current study also has certain limitations. The study used an online survey-based approach for understanding user behavior. Studies involving point of sale user understanding are required to understand actual user behavior and the effect of various factors like time and money pressure in decision making. Future studies to assess the effect of providing product experience at the point of sale on purchase intention and driving user-brand relationships would also benefit product designers and marketers.

5.3 Experiment 2: Role of Product Experience on User-Based Brand Equity

A competitive marketplace has different types of users with different needs. Companies know that they cannot profitably serve all users. To win in a marketplace, companies must identify the parts of the market it can profitably serve (Kotler & Armstrong, 2012). Companies need to design user-driven marketing strategies that build relationships with target users. Most companies have moved from a mass marketing strategy to user-driven strategies, i.e., identifying market segments and developing tailored products and marketing programs. After a company decides which segments to

target, it must decide how it will differentiate the offering and what positions they want to occupy.

Marketers want to develop unique market positions for their products. If a product is perceived to be exactly like others in the market, users would have no reason to buy it. Positioning is about arranging the product to occupy a clear, distinctive, and desirable place relative to competing products. Marketers plan positions that distinguish their products from competing brands and give them an advantage in target markets. Branding is an approach for differentiating one product from another. Branding has importance for both users and companies. It helps differentiate products, establish accountability and trust, and develop loyal relationships (Keller, 1993). Brand loyalty is one way for companies to achieve a competitive edge.

The previous section of the thesis reported that good product usage experience is the most important factor for Indian users in consumer goods purchases. This section of the research extends it one step further, assessing the effect of providing product experience on purchase intention and user-based brand equity.

5.3.1 Research Methodology

An in-context (shopping) user study involving qualitative and quantitative methods was performed to assess the role of product experience in product purchase and user-based brand equity. The study used hair shampoo and liquid handwash as product categories. These categories were selected due to high user relevance. Besides, both categories were in the top three positions for purchase incidence, based on Experiment 1 (Figure 5.4). Further, shampoo and liquid handwash provide several experiential components (smell, texture, and lathering), making them the right candidates for assessing the role of product experience.

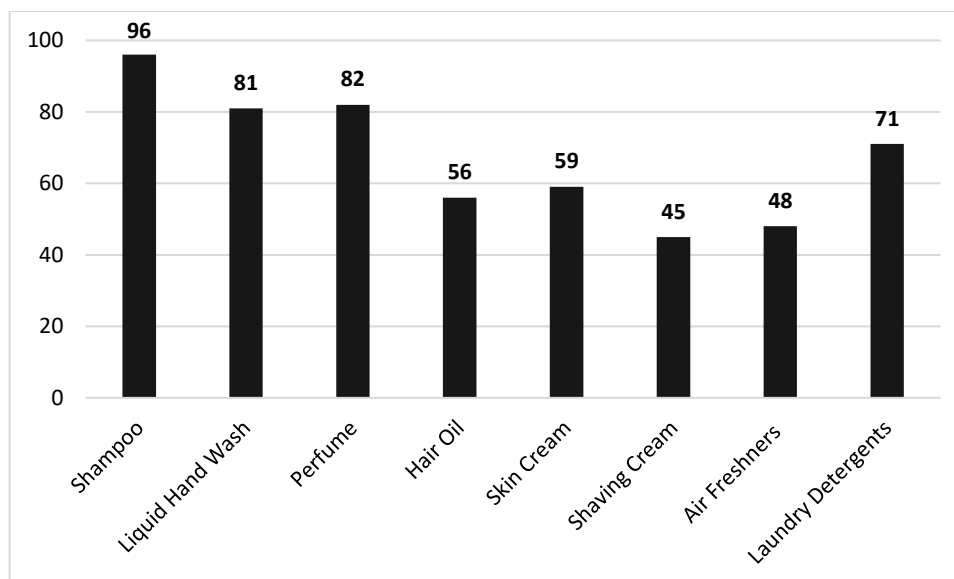


Figure 5.4: Results from purchase incidence assessment from Experiment 1: On Y-axis, the percent of users who selected the category is presented.

The experiment was conducted in two parts. A pre-test was conducted to identify suitable products to be used as ‘test product’ in the Main test. The pre-test used ten leading shampoo and nine leading liquid handwash products. The Main test involved a point of sale product experience and product purchase. The Main test was conducted using a Physical Laboratory Store (PLS). Users in the Main test were divided into two groups: a control group and an experimental group. The control group users went through a pre-shopping questionnaire, followed by product purchases at PLS, and a post-shopping questionnaire. The experimental group went through the same steps, with the addition of product experience before purchasing at the PLS. The steps that the control group and experimental group went through in the Main test are presented in Figures 5.5 and 5.6, respectively. The experiment was conducted in Cochin, India, in December 2018.

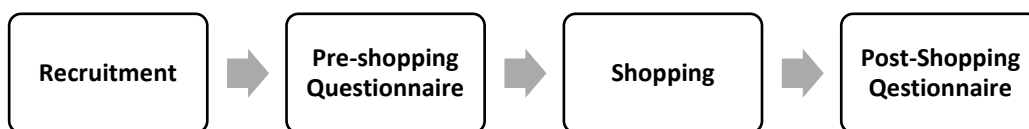


Figure 5.5: Steps control group users went through in the main test.

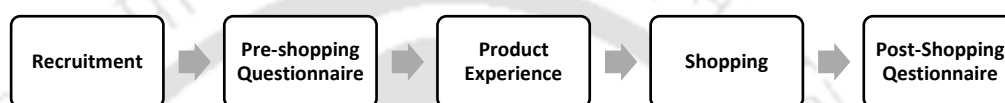


Figure 5.6: Steps experimental group users went through in the main test.

5.3.2 Data collectors

Due to the complexity of the data collection, independent data collectors were used for data collection. The data collectors were trained using a modified version of the approach proposed by Beatty and Ferrell (1998). In their study, researchers acted as supervisors while graduate students acted as data collectors. Mohan et al. (2013) also used the same approach. In the current research, data collectors with experience were used compared to graduate students in Beatty and Ferrell. Data collectors for the research were recruited by a freelance professional market research consultant with over ten years of experience. Data collectors recruited for the study were young females with an age group of 20-25. All data collectors had prior experience in data collection. Four data collectors were used for the study. The data collectors were trained by the researcher to familiarize them with the study protocol and questionnaire. An image from the training of the data collectors is presented in Figure 5.7.



Figure 5.7: Training of data collectors.

5.3.3 Development of Physical Laboratory Store

A Physical Laboratory Store (PLS) was developed for the experiment for providing a simulated shopping experience. The PLS was developed with learnings from methods suggested by Bressoud (2013) and Desmet et al. (2013). Bressoud suggested four types of product exposure methods for user studies. These include an online shelf, a wall screen shelf, a virtual store, and real experimental stores (Figure 5.8). In experimental stores, users could touch and feel the products like in the real store. Such stores are highly immersive for conducting user studies. Hence the concept of the online shelf, wall screen shelf, and virtual stores was ruled out for current research.

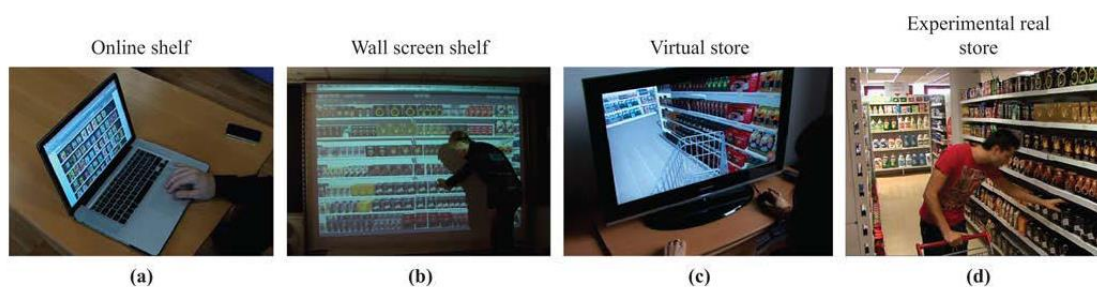


Figure 5.8: Four types of product exposure methods for assessing shopper behavior (Bressoud, 2013).

Desmet et al. (2013) suggested Physical Laboratory Store (PLS) for conducting user studies. A PLS is a mock-up store with multilevel shelving units arranged in aisles and a checkout space, with a similar look and feel to a real store. The laboratory store or

'pseudo-store' methodology involves putting target users in a controlled environment that realistically mimics the natural product purchase environment. Such techniques are commonly used to assess the financial impacts of marketing initiatives by manufacturers (e.g., changing price or package) (Burke, 1996) and retailers (e.g., new shelving strategy) (Needel, 1998; Vrechopoulos et al., 2004). In physical laboratory store experiments, users are asked to simulate their shopping behavior, picking up the product from the shelf, and proceeding to the payment counter without paying. PLS allows free movement in the experiment environment and allows users to see and feel the product. It provides excellent reproduction of the actual shopping environment (Fitzsimons et al., 2002; Inman et al., 2009; Puccinelli et al., 2009). Hence PLS was used for user studies in this experiment.



Figure 5.9: Physical laboratory store created for the main test.

5.3.3.1 Product Shelf Creation

Product display conditions in PLS should closely match the market shares for using it to evaluate user behavior in consumer goods purchases (Burke et al., 1992). Simulating product displays with the best prediction of market shares is vital for creating a shopping experience representing natural shopping behavior (Holbrook & Hirschman, 1982). For the shelf design, Bressoud (2013) used brands and varieties representing eighty percent of the market. A PLS is a mock-up store containing multi-level shelving units arranged in aisles and a checkout space. It provides a similar look and feel to a real store. The PLS used in the study displayed shampoo and liquid hand wash products and had a similar assortment to a supermarket. The shelf was presented with all available liquid handwash and shampoo products in Cochin city, purchased by visiting ten popular shopping malls. An image of the physical laboratory store created for the experiment is presented in Figure 5.9.

5.3.3.2 Product Experience Room Creation

For providing product experience, a product experience room was created. A room with washbasins and water connectivity was defined as the product experience room. Users were asked to experience the products in the room. For liquid handwash products, users mimicked their usual behavior of product usage. For shampoo products, mimicking the usual behavior of showering during the experiment was inconvenient and not practical. Hence users experienced the product by washing their hands using the shampoo. While this was a limitation of the study, the approach helped to get user perception by experiencing the product on their hand. The product experience room created for the study is presented in Figure 5.10.



Figure 5.10: Product experience room created for the study.

5.3.4 Questionnaire Development

The questionnaire for the experiment included a recruitment questionnaire and questionnaires for the pre-test and the Main test. For the pre-test, data collection was done in two phases. In Phase 1, demographics and purchase habits were collected. Phase 2 gathered information about products experienced during the test.

For the Main test, data collection was conducted in three phases. At Phase 1, demographics and purchase habits were collected. Phase 2 collected data about user behavior at the shelf using video recordings. In Phase 3, post-product purchase data was collected. Details of the questionnaires used for the study are described below.

5.3.4.1 User Recruitment Questionnaire

Users for the experiment were recruited by the help of a freelance professional market research consultant. The recruitment questionnaire included demographic questions such as age, gender, and educational qualification. Besides, questions about the

familiarity of shampoo and liquid handwash products, frequency of product purchase and usage, and purchase decisions were also included. The users who did not have familiarity and purchase experiences for shampoo and liquid handwash categories were excluded from the research. Besides, users must have brought and used the products at least once last year to be eligible for the experiment. Further, users were also needed to be purchase decision-makers and have a habit of buying products from physical stores. The recruitment criteria set for the experiment helped to ensure that the users in the study have relevant experience for participating in the experiment.

5.3.4.2 Pre-test questionnaire

The pre-test was conducted to identify the 'test products' for point of sale product experience in the Main test. For the pre-test, users were asked to experience ten shampoos and nine liquid handwash products. After experiencing each product, users had to answer a short questionnaire about the experience. These included questions about how they liked the product, the packaging, and usage experience. Questions were asked using a nine-point Likert scale. The questionnaire included questions about package aesthetics, color, shape, fragrance, texture, product effectiveness, quality, usage experience, and convenience. Further, users were also asked to select the top three brands in terms of perceived quality, value for money, innovativeness, future purchase intention, and willingness to pay a price premium.

5.3.4.3 Main Test Questionnaire

The Main test was conducted in three phases. Phase 1 involved a pre-shopping questionnaire about buying behavior and demographics. Phase 2 involved a shopping exercise using the PLS and, finally, Phase 3, a post-shopping questionnaire.

Pre-shopping questionnaire: Pre-shopping questionnaire was used to understand the users' category familiarity and behavior in product purchases. The questionnaire also included questions to understand the relationship with their current brand. Awareness related questions such as 'top of the mind awareness' and 'unaided awareness' were included. Further, the name of their current brand and level of satisfaction with the brand were asked. Lastly, the names of all brands they have purchased in the past and the brand they have most often purchased were asked.

Post-Shopping Questionnaire: Post-shopping questionnaires included the brand name of the product they purchased and factors that influenced their purchase

decision. The factors assessed included good user experience, color, shape, aesthetics, fragrance of the product, brand name, advertisements, celebrity, product texture, effectiveness, quality of the product, convenience, value for money, family and friend's recommendation, and country of origin (manufacturing). Further, a set of 33 questions (listed below) related to user-based brand equity was asked to assess the role of product experience in user-based brand equity. Brand equity questions used for the study were developed using the scales developed by Aaker (1996), Schivinski and Dabrowski (2014), and Yoo et al. (2000). Questions were asked using a nine-point Likert scale and included the following:

1. This brand is very different from other brands in its category.
2. I have a clear image of the type of person who would use this brand.
3. This is an interesting brand.
4. I can recognize the brand logo of this brand.
5. I like this brand.
6. Products from this brand are as good as or better than my current product.
7. Products from this brand are very reliable.
8. I consider myself a fan of this brand.
9. Even if someone offers me products from other brands, I would still buy this brand.
10. I trust the quality of products from this brand .
11. Products from this brand would be of very good quality.
12. Products from this brand offer excellent features.
13. Some characteristics of this brand come to my mind quickly.
14. I can recognize this brand among other brands.
15. I am familiar with this brand.
16. This brand has a unique brand image compared to other brands.
17. I respect and admire people who use this brand.
18. I like the brand image of this brand.

19. I like and trust the company which makes this product/brand.
20. I believe I am loyal to this brand.
21. When buying products in the category, this brand would be my first choice.
22. I will keep on buying products from this brand as long as this brand provides me satisfying products.
23. I am still willing to buy products from this brand even if its price is a little higher than that of its competitors.
24. I would recommend this brand to my friends.
25. Even if another brand has the same features as this brand, I would prefer to buy this brand.
26. If another brand is not very different from this brand, I think it is smarter to purchase this brand.
27. This brand is more than just a product for me.
28. I will not buy other brands if the following brands are available at the store.
29. The likelihood that the products in the following brand are functional is very high.
30. I am aware of the following brand.
31. It makes sense to buy the following brand instead of any other brand, even if they are the same.
32. If there is another brand as good as the following brand, I prefer to buy the following brand.
33. I have difficulty in imaging the following brand in my mind.

Questionnaires used for the pre-test and the Main test are presented in Appendix 8.

5.3.4.4 Questionnaire Translation

The questionnaire was developed in English and translated to Malayalam, the language spoken in Kerala. Accuracy of the translation was assessed using methods described in Douglas and Craig (1983) and Yoo et al. (2000). An English language teacher from Kerala reviewed the questionnaire for grammatic accuracy and face validity. The questionnaire was further reviewed by two other bilinguals in Kerala and confirmed accuracy.

5.3.4.5 Defining Brand Predictive Factor

A parameter called Brand Predictive Factor (α) was developed for identifying 'test products' for the Main test. This thesis defines Brand Predictive Factor (α) as a function of purchase intention and normalized median scores of the importance of product, brand, and package-related attributes (Quality of the Product, Usage experience, Fragrance, Texture of the product, Effectiveness of the product, Beautiful look of the package, Convenience of the package, Color of the package, and Shape of the package) for the market. Brand Predictive Factor' (α) is mathematically defined as,

$$\alpha = 10X + \sum_{i=1}^n \beta_i \gamma_i$$

Where X is the median score of purchase intention, β_i is the normalized median score of the importance of product, brand, and package-related attributes for the respective market and γ_i is the median score the product received for experience related attributes from the product experience test. In current study, the median scores each of the factors received in Experiment 1 is taken as β_i , while the median score each of the products received from the pre-test was taken as β_i . The products that scored the highest brand predictive factor was selected as the test products (one international brand and one domestic brand) for the Main test.

5.3.5 Pre-Test

The pre-test was conducted to identify the right products to be used as 'test products' for the Main test. Ten shampoo products and nine liquid hand wash products, including products from domestic and global brands, were selected for the study. The brands that most commonly seen based on the store browsing were selected for the pre-test. Head & Shoulders, Dabur, Pantene, Sunsilk, Tresemme, Loreal, Clinic Plus, Dove, Dhatri, and Himalaya brands were selected for shampoo. Dabur, Dhatri, and Himalaya were domestic Indian brands. Head & Shoulders, Pantene, Sunsilk, Tresemme, Loreal, Clinic Plus, and Dove have a substantial international presence.

For liquid handwash, Santhoor, Lifebuoy, Savlon, Detol, Lux, Chandrika, Medimix, Mysore Sandal, and Palmolive were selected. Santoor, Savlon, Chandrika, Medimix, and Mysore Sandal were domestic Indian brands, while Detol, Lifebuoy, Lux,

and Palmolive were international brands. The shampoo and liquid handwash products used for the pre-test are presented in Figures 5.11 and 5.12.

Twenty users who completed the recruitment questionnaire were chosen for the pre-test. The users were randomly assigned to data collectors. All data collectors were assigned with an equal number of users (five each) to avoid bias due to individual differences in data collections. The data collection was conducted in two phases, a pre-questionnaire and post-product experience questionnaire. The selected products were experienced by all twenty users to identify products with the highest Brand Predictive Factor. Users assessed each product for various product and package-related attributes like the texture of the product, fragrance, convenience, aesthetics, product quality, and experience. The Median score each product received for these attributes and purchase intention was used to calculate Brand Predictive Factor.

The domestic and global products that received the highest 'Brand Predictive Factor' (α) were selected as 'test products' for the Main test. The user base for the pre-test included ten males and ten females of age group 18-55. All users were natives of Cochin, Kerala. At the end of the study, each user was rewarded with gifts worth INR 250, consistent with the market practice.



Figure 5.11: Liquid hand wash products used in the pilot test.



Figure 5.12: Shampoo products used in the pre-test.

5.3.5.1 Results and Discussions

The median scores shampoos and handwash products received for the various product, brand, and package-related attributes are present in Tables 5.3 and 5.4, respectively. The median score shampoo products received for user experience spanned between seven and eight. For liquid hand wash, it spanned between six to nine. The median scores shampoos received for attributes like the Beautiful look of the package, Package color, Quality of the product, and User experience were very similar across all brands. Close median scores indicate competitiveness in the market, suggesting how difficult it is for users to select the right product.

The median purchase intention score shampoo and handwash products received are presented in Figures 5.13 and 5.14, respectively. Among shampoos, Dove received the highest median score (nine). Dabur, Pantene, Sunsilk, and Tresemme scored the lowest median score (seven). Among liquid hand wash products, Detol received the highest median score for purchase intention (nine). Lifebuoy and Chandrika received a lower median score (eight), and all other brands received seven.

Table 5.3: Median scores for each of the ten shampoo products received for the various brand, product, and package-related attributes from the pre-test (N=20).

	Head & Shoulders	Dabur	Pantene	Sunsilk	Tresemme	Loreal	Clinic Plus	Dove	Dhatri	Himalaya
Beautiful look of Package	7.5	7	8	8	7	8	8	8	8	7.5
Color of Package	7	7	7.5	8	7	8	8	8	8	7
Shape of the Package	7.5	6.5	7	7.5	7	8	8	8	8	7
Fragrance of the Product	7	6.5	7.5	7	7	8	8	8.5	7.5	7
Texture of the Product	7.5	6	8	8	7	8	8	8	7.5	8
Effectiveness of the Product	7	7	8	8	7	8	8	8.5	8	8
Quality of the Product	8	7	8	8	7	8	8	8	8	8
Usage Experience	8	7	8	8	7	8	8	8	7.5	8
Convenience of the Package	8	7	8	8	7	8	8.5	8.5	8	8

Table 5.4: The median scores for each of the nine liquid hand wash products received for the various brand, product, and package-related attributes from the pre-test (N=20).

	Santhoor	Lifebuoy	Savlon	Detol	Lux	Chandrika	Medimix	Mysore Sandal	Palmolive
Beautiful look of Package	8	7	6	8	8	8	8	7	8
Color of Package	8	7	6	8	8	8	8	8	9
Shape of the Package	8	7	7	8	7	8	7	7	8
Fragrance of the Product	8	7	6	8	7	8	8	7	7
Texture of the Product	8	8	7	8	7	8	7	7	7
Effective of the Product	8	8	6	9	7	8	8	7	7
Quality of the Product	8	8	7	9	8	8	7	7	8
Usage Experience	8	8	6	9	8	8	8	7	8
Convenience of the Package	8	8	7	9	7	8	8	7	8

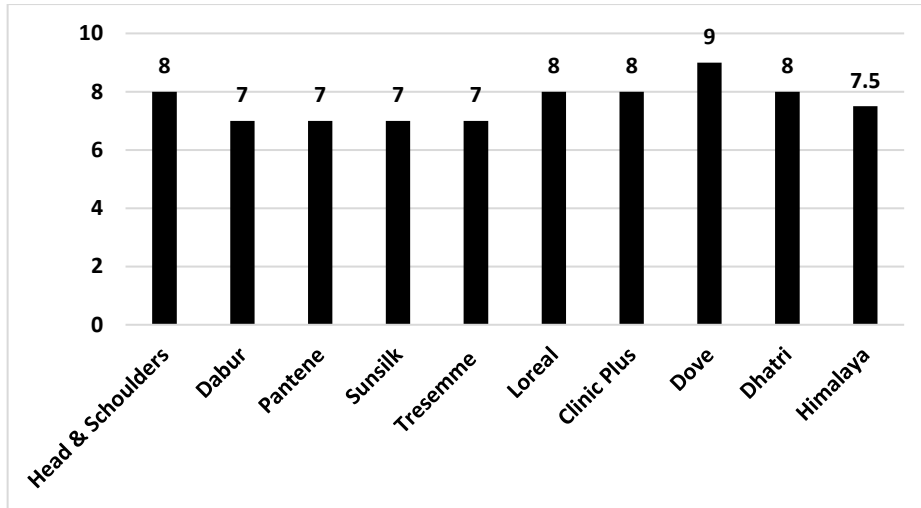


Figure 5.13: Median scores for each of the ten shampoo products received for Purchase Intention (N=20, 9 points Likert Scale).

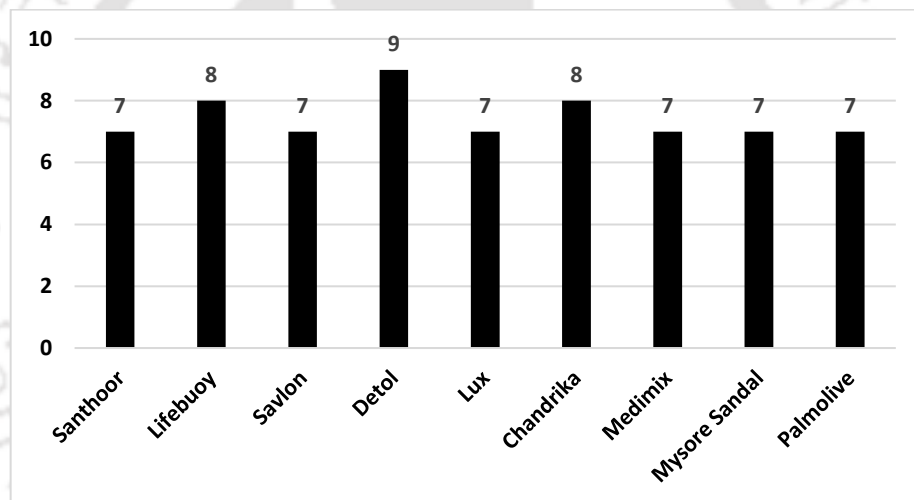


Figure 5.14: Median scores for each of the nine liquid handwash products received for Purchase Intention (N=20, 9 points Likert Scale).

The median scores products received for purchase intention, and various brand, product, and package-related attributes were used to calculate the brand predictive factor (α) for the products. The brand predictive factor calculated from the pre-test is presented in Figures 5.15 and 5.16. Dove received the highest score for brand predictive factor (α) among shampoos, with 343 points followed by Clinic Plus at 329.5 points. Among domestic Indian brands, Dhatri received the highest score with 322 points. Among liquid handwash products, Detol received the highest score, with 363 points, followed by Chandrika, which is a domestic Indian brand at 336 points. It was observed that the

product received the highest score for purchase intention also received the highest score for the brand predictive factor assessment. However, the brand predictive factor helped differentiate products that received the same median score for purchase intention. Based on the Phase 1 study, Detol and Chandrika were defined as test products for the liquid handwash category and Dove and Dhatri Dheedhi for the shampoo category.

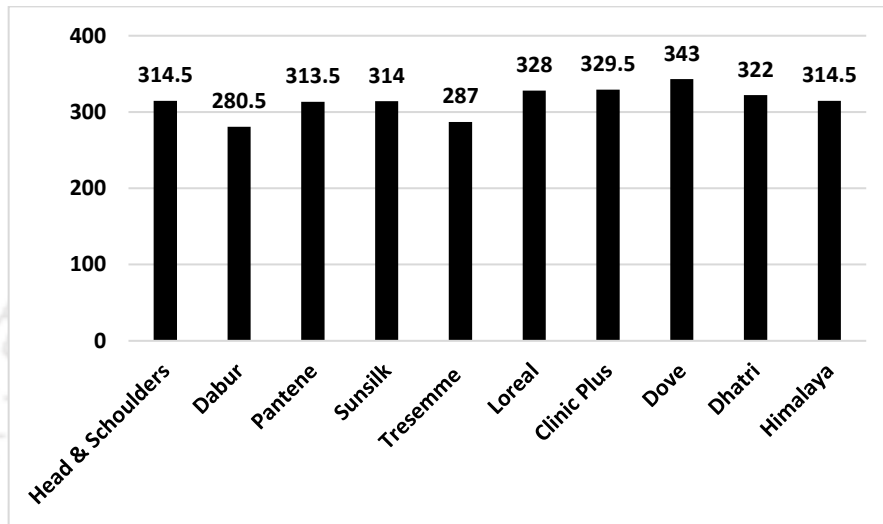


Figure 5.15: Brand Relevancy Factor (α) each of the ten shampoo products received from the pilot test. (N=20).

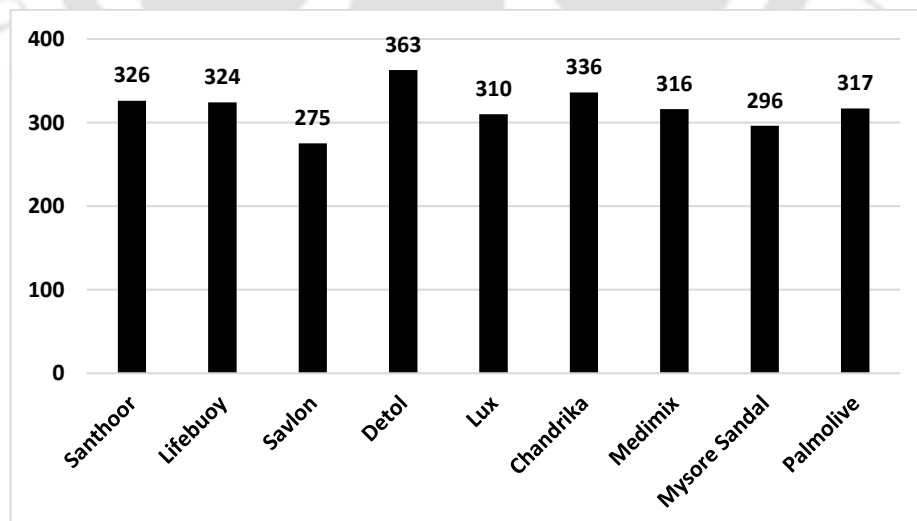


Figure 5.16: Brand Relevancy Factor (α) each of the nine liquid handwash products received from the pilot test. (N=20).

5.3.6 Main Test

For the Main test, users completing the recruitment questionnaire were randomly assigned to the experimental and the control groups. All data collectors were assigned with an equal number of users from experimental and control groups to avoid bias due to individual differences in data collection. Further, the number of male and female users assigned to each data collector was also equal. The users were provided with a brief overview of the experiment. Data collection was conducted in three phases. In Phase 1, users were asked to complete a questionnaire to understand category familiarity and purchase behavior. After completing Phase 1, users in the control group were directed to the PLS for shopping exercise. Users were asked to buy one shampoo and one liquid handwash from the PLS. In the meantime, the experimental group users were guided to the product experience room for experiencing 'test products,' predefined from the pre-test. Data collectors accompanied the users to the experience room.

In the experience room, users were asked to experience the test products by washing their hands. Users were given as much time as needed to experience the products. They were also permitted to ask any questions they may have. After completing the product experience exercise, the users in the experimental group were also directed to PLS. In tests involving PLS, a researcher's presence during shopping may impact the user and result in modifying the behavior (Levitt & List, 2007). The researcher and data collectors did not accompany the user during shopping exercise to avoid behavior change. Instead, video recording was taken to observe user behavior at the shelf, as suggested by Herpen et al. (2016). Herpen et al. suggested that user observations must be conducted in a way that does not obstruct user shopping. The users were asked to purchase the product in the same ways as they usually do. Burke et al. (1992) suggested that users tend to buy more products in experimental store environments due to lack of money, time, and space constraints. Such a limitation was avoided in the experiment by asking users to buy only one product from each category.

Users were given as much time as they needed at PLS to avoid behavior changes due to time pressure. After purchasing the products, users were instructed to check out without making payment. Phase 3 data collection was conducted after the PLS exercise. After completing Phase 3, data collectors thanked the users for their time. A total of 48 users participated in the main-test, of which 50% were females. The users were of age group 18-55, and native of Kerala, India. The experiment set-ups used for data collection

are presented in Figures 5.17 to 5.19. The study for each user lasted for about one hour. At the end of the study, users were rewarded with gifts worth INR 250, consistent with the market practice.



Figure 5.17: Images from Phase 1 and Phase 3 data collections.



Figure 5.18: Images of users experiencing the products at the product experience room.



Figure 5.19: Images from product purchase exercise at the Physical Laboratory Store.

5.3.6.1 Results and Discussions

Data analysis was conducted to assess the effect of product experience in product purchase and user-based brand equity. The median score with which each of the various products, packages, and brand-related attributes influenced purchase decision, as reported by the users, is presented in Figure 5.20. Among all the attributes, Product Usage Experience received the highest median score of nine. The result provided validation to the findings from Experiment 1 by confirming that the most important factor for Indian users in consumer goods purchase is a good user experience. The Brand Name and Quality of the Product also received a high median score of 8.5. The Celebrity used for the brand and Country of Origin received the lowest median scores, seven and five, respectively.

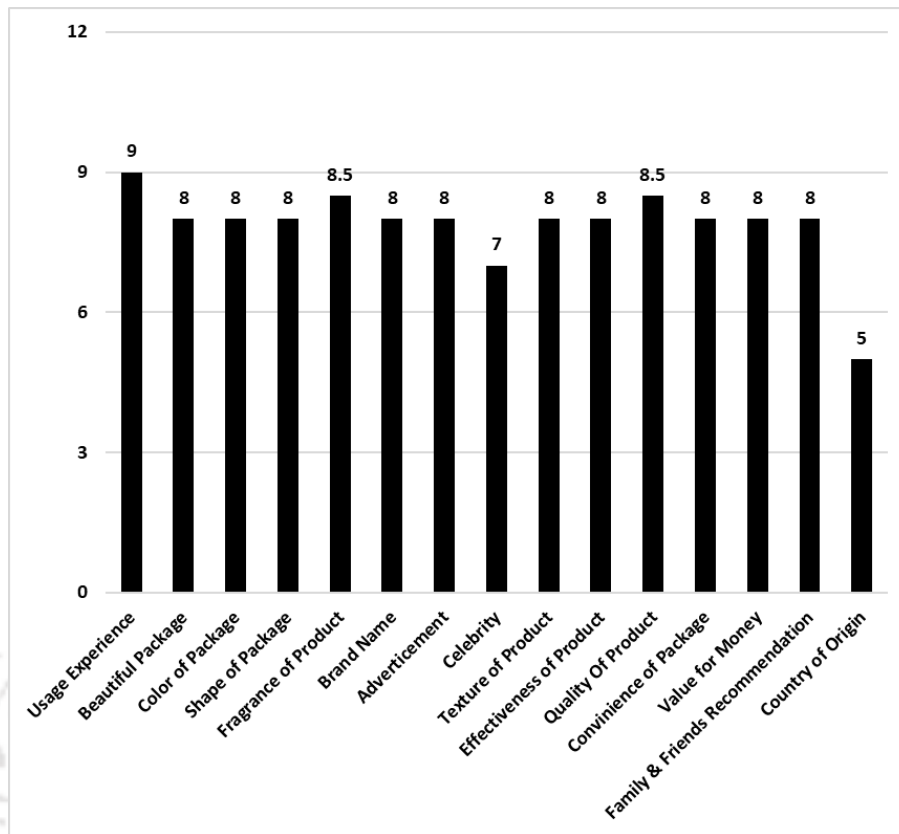


Figure 5.20: Median Score of factors influenced purchase decision making, as reported by the users. N=48 Nine Points Likert scale.

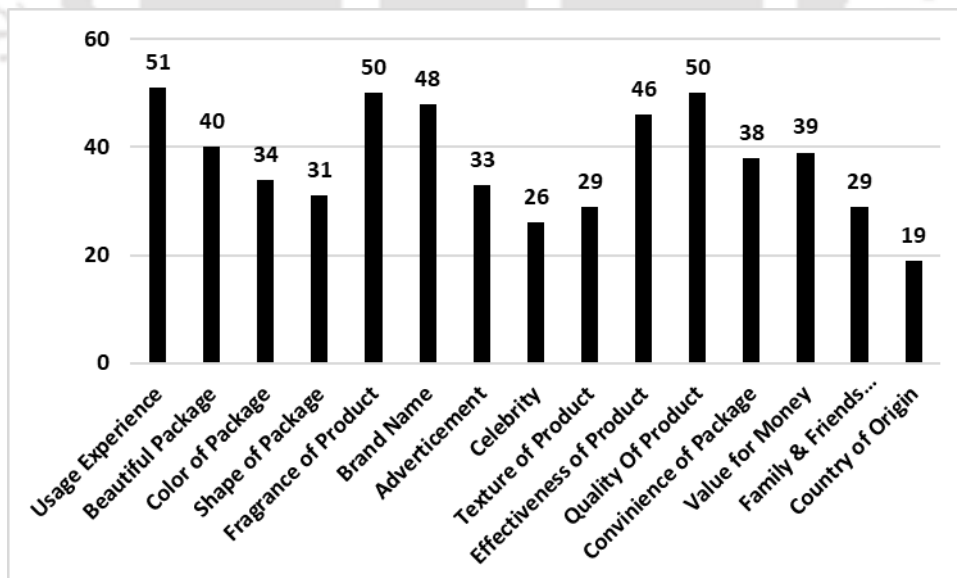


Figure 5.21: Top box ratings various brand, product, and package-related attributes received based on nine points Likert scale assessment (N=48).

Besides the median score, top box ranking based analysis was also performed. Top box rankings are calculated using the percent of users provided the highest Likert-scale rating, i.e., nine (Koen & Kohli, 1998). Like the median score, top box rankings are commonly used for Likert scale data analysis (Lis et al., 2011; McClelland & Vogus, 2014). The results from the top box ranking are presented in Figure 5.21. 'Usage Experience' received a top box rating of fifty-one percent. High top box ratings were also received for the Quality of the Product (50%), Fragrance of the Product (50%), Brand Name (48%), and Effectiveness of the Products (46%).

Assessment of User-Based Brand Equity

Data analysis was conducted to understand the effect of product experience on user-based brand equity. Statistical analysis using the median scores and top box rankings are presented in Table 5.5.

For data analysis, the questions were grouped into five groups, four groups of elements of user-based brand equity (brand associations, perceived quality, loyalty, and brand awareness) and the fifth group as overall brand equity. Among questions related to brand associations, users in the experimental group rated one median point higher than the control group for attributes such as Liking the Brand, Uniqueness of the Brand, Brand Personality, Brand Image, and Trust of the Company makes the product. For top box rankings, over 5% of the increase was observed in the experimental group several parameters. These included Interesting Brand (13% higher), Like the Brand (9% higher), Like Brand Image (9% higher), Smarter Purchase Choice (8% higher), and unique brand image (7% higher).

For Perceived Quality, the experimental group received one median point higher for Product Functionality. Further, for top box ranking, over a 5% increase was observed several perceived quality-related attributes. These included '(the brand) Makes Better Products than my current product' (10% higher), Reliable Products (7% higher), Likelihood of Products from the Brand are Functional' (6% higher), and Trust Quality of Product (5% higher).

For brand loyalty, the experimental group rated one median point higher for Brand Preference, Willingness to Pay a Price Premium, Fan of the Brand, Loyalty, and Satisfaction. A similar trend was also observed in the top box ranking. Preference to Buy the Brand (11% to 13% higher), Willingness to Pay Price Premium (9% higher), Loyalty

(9% higher), and Willingness to Recommend the Brand (8% higher) received higher top box rankings in the experimental group.

For Brand Awareness, test and control groups received the same median score. However, the top box ranking was substantially higher for the experimental group. For Recognizing the Brand Among Other Brands, 38% of users in the experimental group rated nine compared to 16% in the control group. Other awareness related attributes like the Familiarity of the Brand (12% higher), Recognition of the Logo (9% higher), and Brand Awareness (7% higher) were also received a higher top box ranking in the experimental group. Based on the assessments, it can be concluded that providing a point of sale product experience has a strong positive effect on user-based brand equity.

Table 5.5: Median scores and the top box rankings for each attribute calculated on a nine-point Likert scale.

The element of User-based Brand Equity	Likert scale question used for user-based brand equity assessment	Median Score		Top box ranking	
		Control Group	Experimental Group	Control Group	Experimental Group
Brand Associations (Differentiation, Brand Personality, Organization)	I like this brand	7	8	23	32
	Some characteristics of this brand come to my mind quickly	7	7	20	23
	This brand is very different from other brands in its category	7	8	20	25
	If another brand is not very different from this brand, I think it is smarter to purchase this brand	7	6	15	23
	I have difficulty in imaging the following brand in my mind	3.5	3.5	10	13
	I have a clear image of the type of person who would use this brand	8	7	26	25
	This is an interesting brand	7	8	16	29
	This brand has a unique brand image compared to other brands	7	8	20	27
	I respect and admire people who use this brand	6	7	5	7
	I like the brand image of this brand	7	7.5	22	31
	I like and trust the company which makes this product/brand	7	8	24	28

The element of User-based Brand Equity	Likert scale question used for user-based brand equity assessment	Median Score		Top box ranking	
		Control Group	Experimental Group	Control Group	Experimental Group
Perceived Quality	Products from this brand are as good as or better than my current product.	7	7	15	25
	Products from this brand are very reliable	7	7.5	23	30
	I trust the quality of products from this brand	7	7	22	27
	Products from this brand would be of very good quality	8	8	24	27
	The likelihood that the products in the following brand are functional is very high	7	8	22	28
Loyalty (Loyalty, Price Premium, & Satisfaction)	I will keep on buying products from this brand as long as this brand provides me satisfied products	7	7	21	25
	I would recommend this brand to my friends	7	7	17	25
	Even if another brand has the same features as this brand, I would prefer to buy this brand	6	7	14	25
	I am still willing to buy products from this brand even if its price is a little higher than that of its competitors	6	7	13	22
	I consider myself a fan of this brand	6	7	17	20
	Even if someone offers me products from other brands, I would still buy this brand	6	7	16	23
	I believe I am loyal to this brand	7	8	24	33
	When buying products in the category, this brand would be my first choice	7	7	22	25
	This brand is more than just a product for me.	6	7	17	13
	I will not buy other brands if the following brands are available at the store	6	7	11	24
Awareness	I can recognize the brand logo of this brand	7	7	25	34
	I can recognize this brand among other brands	8	8	16	38
	I am familiar with this brand	8	8	34	46
	I am aware of the following brand	8	8	32	39

The element of User-based Brand Equity	Likert scale question used for user-based brand equity assessment	Median Score		Top box ranking	
		Control Group	Experimental Group	Control Group	Experimental Group
Overall Brand Equity	Products from this brand offer excellent features	7	7	17	22
	It makes sense to buy the following brand instead of any other brand, even if they are the same	7	7	16	23
	If there is another brand as good as the following brand, I prefer to buy the following brand	6	7	23	23

For assessing the effect of product experience on user-based brand equity, data analysis was conducted by comparing products with the superior user experience (Dove and Detol) and inferior experience (Dhatri and Chandrika), defined from the pre-test. Products that received the highest score for usage experience were selected as the superior experience group (Dove for shampoo and Detol for liquid handwash). The median scores products in superior (Dove and Detol) and inferior (Dhatri and Chandrika) user experience received for user-based brand equity attributes are presented in Figure 5.22. Data analysis showed that products that received a higher score for ‘usage experience’ have also received a higher score for user-based brand equity. Among differentiation-related attributes, a difference of three points in the median score was observed for attributes like Differentiation and Smarter Purchase Choice than Other Brands. They also received a four-point lower score for Difficulty in Imaging the Brand, which suggests that the users could easily recognize the brand.

For all brand associations related attributes, products in the superior usage experience group received four points higher median score than the inferior experience group. For Brand Personality, products in the superior usage experience group received three points higher median score, suggesting noticeably superior perceived brand personality. A similar trend was also observed for Perceived Quality-related attributes. Further, the superior experience group received a three-point increase in the median score for Brand Loyalty related attributes like Willingness to Purchase and Recommend the Brands to others. Besides, a four-point increase was observed for the Likelihood of Continuous Purchase and Rejecting Other Brands.

For Brand Awareness, an increase of two to four points in the median score was observed for products in the superior experience group. Lastly, the products with superior

experience group also received higher scores for Trust in the Company and Overall Brand Equity. Analysis from this section suggests that the products with better user experience also have better user-based brand equity. Hence, companies looking to build long-standing relationships with users should focus on developing products with great user experiences.

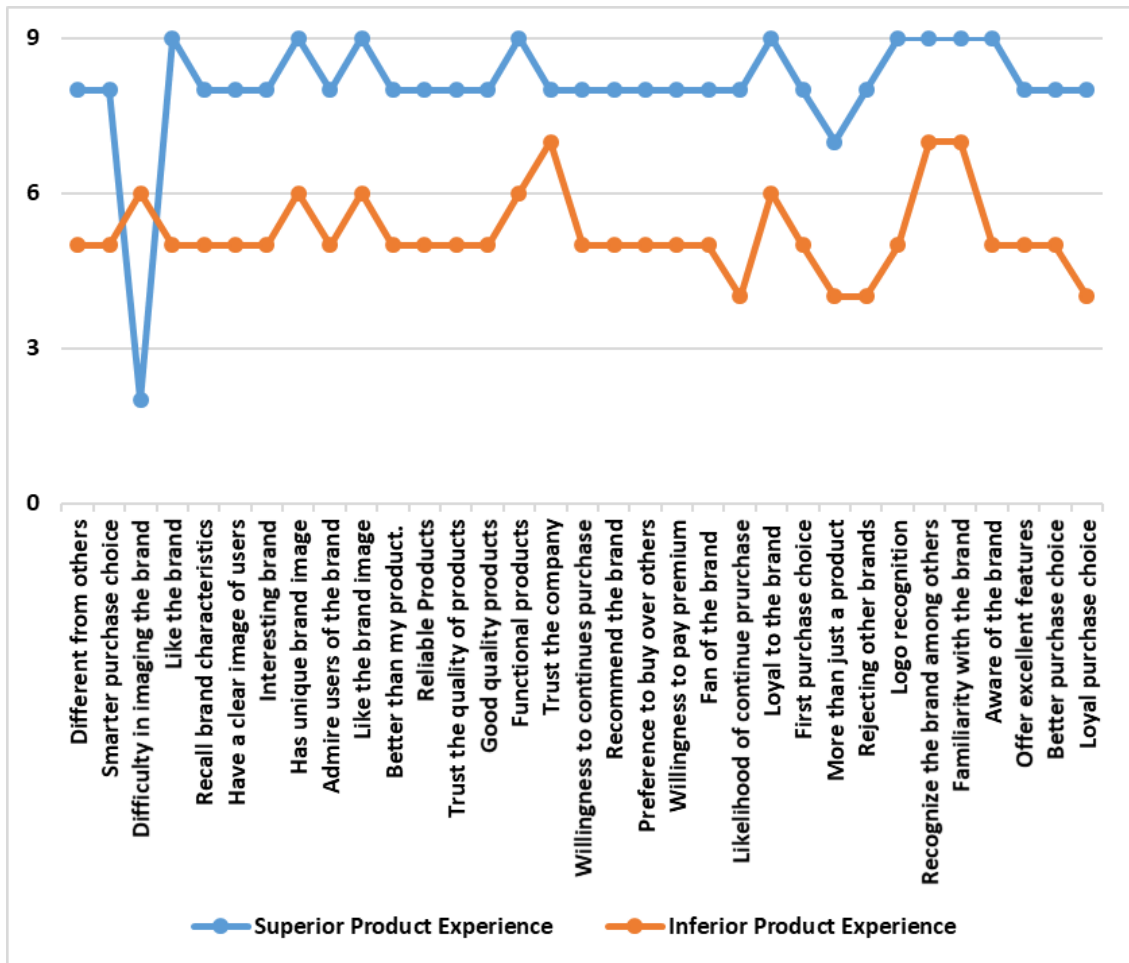


Figure 5.22: Median scores products in the superior and the inferior product experience group received for user-based brand equity related attributes.

5.4 Chapter Summary

This chapter presented insights from user studies conducted among consumer goods buyers in the Indian market. The studies helped identify the relative importance of various brand, product, and package-related attributes in product purchase. The study revealed that ‘Good User Experience’ and ‘Quality of the Product’ are the two most

essential factors users expect from consumer goods. Besides, Good User Experience was also identified as one of the essential factors for repeat purchase. Further, experiments involving in-context user studies with Physical Laboratory Store for assessing the role of product experience in user-based brand equity were also reported. The study revealed that product experience and user-based brand equity are directly related.



Chapter 6

Discussion, Contributions, and Scope for Future Work

Chapter Abstract: This chapter presents the consolidated findings and contributions from this thesis. Further, limitations of the research and the scope for future research are also highlighted.

6.1 Introduction

Companies rely heavily on product designers to develop market-winning innovations and marketing managers to create best in class commercialization. Such innovations and commercialization are essential for sustainable growth and profitability of the companies. However, many companies fail to achieve this (Fuertes-Callén & Cuéllar-Fernández, 2014; Sok & O'Cass, 2015). To be successful, companies need continuous innovations within the product categories they operate (Ernst et al., 2015; Golder & Tellis, 1993). Understanding user behavior is essential for identifying new product opportunities (Hofacker et al., 2016; Xiang et al., 2015). User understanding would serve as a foundation for product innovation.

Understanding of the user behavior and decision-making process would help the product designers with insights on thought processes behind purchases, the factors influencing decision making, insights on unmet needs, and the choice of buying (Singh et al., 2014). These insights would help designers in developing design strategies for market-winning product offerings. Behavior models in psychology provide a great understanding of user behavior in product purchases (Mandel et al., 2017). While behavioral models from cognitive psychology help understand users' mental and motor abilities, sociological studies are required for developing socially and culturally suitable products (Beyene et al., 2016). With ever-increasing competition in the marketplace, user behavior understanding has become very important to the companies. Designers need to understand the user behavior for understanding the social and practical needs of the user. The needs of the user dictate the suitability and usefulness of product offerings. To be able to come up with design strategies, it is necessary first to understand what exactly adds value to the user (Creusen & Schoormans, 2005). The current research used planned

and impulsive purchasing (Cobb & Hoyer, 1986) as the foundation for user behavior understating and Fogg's Behavior Model to formulate product design strategies. The state of the art literature review showed considerable gaps in understanding factors influencing purchase decision making. Although several researchers have investigated impulsive and planned purchases of specific categories, research on understanding factors influencing brand selection within a specific category was limited. The gap in the literature was more evident for planned purchasing than impulsive buying.

Designing products that delight users are essential for building a strong base of satisfied users (Aaker, 1996). Satisfied users would eventually become loyal users and only require minimal marketing activities for repeated purchases. Companies create and use brand equity (Buil et al., 2013) for building long-standing user-brand relationships. User related components of the brand equity, such as loyalty, awareness, perceived quality, and brand associations, form user-based brand equity (Aaker, 2009; Mohan & Sequeira, 2016; Pappu et al., 2006; Yoo et al., 2000). The current research used user-based brand equity as a measure of user-brand relationships. Several past researchers have reported a direct relationship between user-based brand equity and market performance (Chi et al., 2009; Liu et al., 2017; Mohan & Sequeira, 2016; Tong & Hawley, 2009). Although market researchers have paid considerable attention to brand equity, research on using product design for building brand equity was limited.

Although past researchers have studied product design strategies, user behavior, and user-based brand equity, the literature showed an opportunity to research and connect the dots, so that product designers could come up with market-winning design strategies. This would also enable marketing managers to commercialize innovations in a way that builds brand equity. The literature review also showed gaps in studies connecting user behavior and product design strategies. Most of the prior reported studies focused on either one of them.

Based on the broad research gap identified from extensive literature reviews, the current research aimed to gain a deeper understanding of factors influencing purchase decisions in consumer goods, especially products like shampoos and chocolates, and develop a set of guidelines for product designers and marketers. Further, the research also aimed to assess the effect of product experience on product purchase and user-based brand equity. The insights from the literature evoked seven research questions that led to this thesis. As reported in section 2.6, they were,

RQ1: Do package graphics influence user perception of the product?

RQ2: Could package graphic design influence the user's perception of the brand?

RQ3: What are the various factors that influence the user in planned purchase decision making?

RQ4: What is the relative importance of various factors in planned purchase decision making?

RQ5: Can customization-based design strategy help influence user motivation for product purchase?

RQ6: What is the role of product experience in product purchase?

RQ7: Is there any relationship between product experience and user-based brand equity?

This thesis addressed the research questions using three phases of the research. Phase 1 of the research involved an investigation of packaging graphic-based design strategies. Using qualitative content analysis and user studies involving qualitative and quantitative methods, and eye movement tracker, Phase 1 of the research addressed RQ1 and RQ2. Phase 2 of the research focused on identifying factors influencing the purchase decisions in planned purchases. Using qualitative in-context user studies across several Asian markets like Thailand, Taiwan, Hong Kong, China, and South Korea, factors influencing purchase decisions in planned purchasing were identified (RQ3). Besides, the relative importance of the factors (RQ4) was also assessed using a small scale quantitative study. Lastly, Phase 2 of the research also assessed customization-based design strategy (RQ5).

Phase 3 of the research addressed research questions RQ6 and RQ7. By performing a quantitative user study among Indian users of consumer goods products, current research assessed the effect of good product experience on product purchase (RQ6). Lastly, the effect of product experience on user-based brand equity was assessed using in-context user studies (RQ7).

6.2 Consolidated Findings from The Thesis

Findings from the current research build on well-established consensus among designers, marketers, and researchers. Current research helped integrating user behavior

understanding with product design and marketing to develop winning product innovations. The main aim of the current research was to strengthen the understanding of factors influencing purchase decisions and support developing products using buying behavior-based design strategies.

6.2.1 Consolidated Findings from Phase 1 of the Research

Phase 1 research investigated research questions on influencing user perceptions of the product (RQ1) and the brand (RQ2) using package graphics.

Experiments in Phase 1 involved a study of package graphic-based design strategies using hair care shampoo and chocolates as categories. A qualitative content analysis using a code sheet incorporating the designer's perspective was conducted for assessing the graphics from a designer's point of view. User perceptions of the graphics were assessed using qualitative and quantitative methods and eye movement recorder based studies. The experiments suggested that user perception towards the product and the brand could be influenced using package graphics. The experiments also provided insights to develop package graphic-based design strategies suitable for hair shampoo and chocolate products for the Indian market.

Based on the experiments, it can be concluded that the brand name's typography should be given the highest weightage with the largest font size and positioning towards the top of the bottle. The presence of a logo or ingredient visual with a high level of clarity would also help drive user attention. Logo or ingredient visual should be given the second-highest weightage. Coloring the cap or cap opening area with colors of the logo would capture user attention. Premium-ness could be driven using a gold band on the cap. For products using nature or natural ingredient communication, colors of the ingredient visual could highlight the cap. Cluttering of the design with too many texts and visuals would make the design unattractive. Information with higher importance should be placed towards the top of the bottle (upper half). Less important information may be placed towards the bottom of the package. This area may be used to communicate product type, benefit, and quantity. Too much information towards the base may also make the design unattractive.

RQ1: Do package graphics influence users' perception of the product?

The user study conducted in Phase 1 revealed that modifying package graphics using design strategies formulated in this thesis results in significant user perceptions

changes. From the shampoo package graphic study, over 80% of the users selected the modified design for keywords like beautiful, premium, and innovative compared to the original design. For negative keywords such as 'bad,' 'boring,' 'ugly,' and 'hate,' over 80% of users selected the original design. The difference in user ratings suggests that the user perception was changed with the change in package graphics. The keywords premium and innovative are also related to user-based brand equity.

Further, the chocolate package study confirmed that the influence of graphics on user perception is also applicable to the chocolate category. This was evidenced by users rating modified designs with a statistically significant and superior rating for beautiful, premium, innovative, and trusted keywords. Improving the aesthetic appeal of the package graphics also resulted in improving willingness to pay a higher price. Seventy-four percent of the users selected the modified design priced at INR 65 compared to the original design priced at INR 50, confirming user perception change.

RQ2: Could package graphic design influence the user's perception of the brand?

User study in Phase 1 revealed that user perception of the brand could be changed using package graphics. This was evident from the brand archetypes assessment conducted for original and modified designs. Over 90 percent of users perceived that the modified design has archetypal differences compared to the original design. The most dominant archetype of the original design based on user perception was "Regular Guy," receiving 47% user agreement, followed by Lover (36%), Innocent (32%), and Caregiver (26%). In contrast, the most dominant archetype of the modified design was Creator (35% user agreement), followed by Innocent (32%), Lover (28%), and Hero (26%). Archetypes Regular guy, Creator and Magician received over 10% differences in user agreements between original and modified designs. The most significant difference was for Regular Guy with modified design receiving 32% fewer user agreements than the original design, followed by the Creator (17% difference).

6.2.2 Consolidated Findings from Phase 2 of the Research

Phase 2 research addressed research questions three to five, in the domain of user behavior in planned purchases (RQ3 and RQ4) and customization-based design strategy (RQ5). Qualitative user studies were conducted across several Asian markets for identifying factors influencing purchase decision making in planned purchases (RQ3). Further, a small scale quantitative study was conducted to assess the relative importance

(RQ4). Lastly, an online user study was conducted to assess if customization-based design strategies could improve user motivation for product purchases (RQ5).

RQ3: What are the various factors that influence the user in planned purchase decision making?

Qualitative in-context user studies were conducted across several Asian markets, such as Thailand, Taiwan, Hong Kong, China, and South Korea. The study employed in-depth interviews, online research, and shop-along methodologies. In-person interviews were conducted in Thailand and Taiwan, with a professional market research agency called IPSOS. For China and South Korea, online user studies were conducted due to the large geographical size. Qualitative user studies revealed that several factors influence users in planned purchase decision-making. It includes family and friends recommendation, expert opinion, online reviews, contents in the brand website, advertisements, in-store presence, and sales consultant recommendation.

Shop-along experiments in Taiwan and Thailand showed user behavior differences between the markets. In Taiwan, users completed the shopping exercise in a flash by selecting the product they planned to buy. On the other hand, Thai users spend more time at the store. They browsed through product options, promotion materials, product information, and asked questions to consultants. In Taiwan, information gathering was done outside the store, using other sources of information. While in Thailand, users give substantial importance to store browsing in information gathering for future purchases.

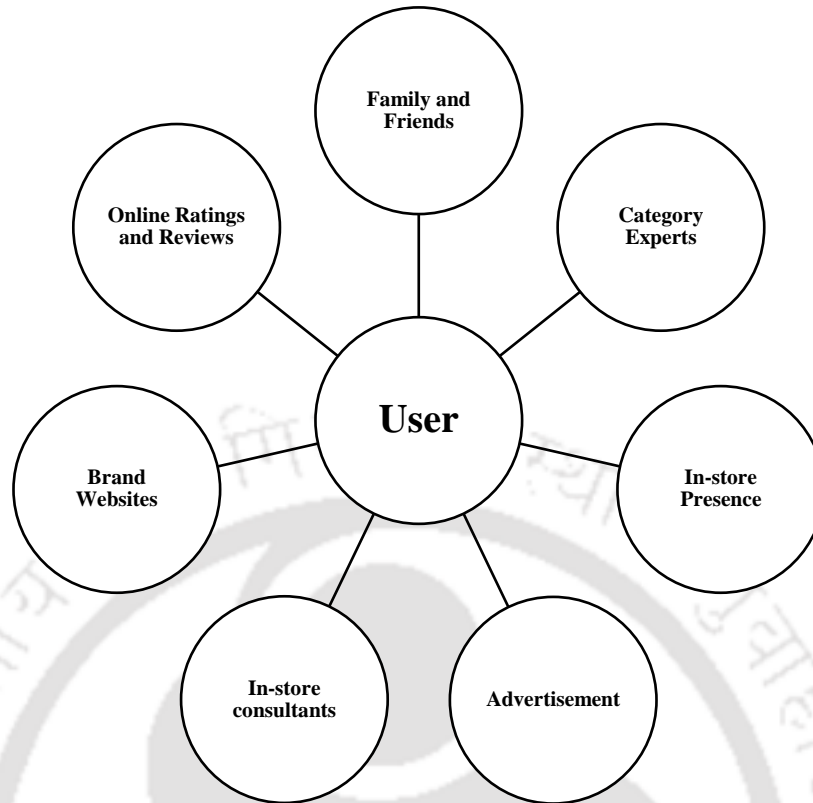


Figure 6.1: Factors influencing users in planned purchase decision making.

RQ4: What is the relative importance of various factors in planned purchase decision making?

Phase 2 research provided insights on the relative importance of various factors influencing planned purchase decision making. The qualitative user studies revealed several factors influencing users in planned purchasing. Hypotheses about the relative importance of the factors were formulated using qualitative insights. A quantitative user study was conducted among Asian users (N=63) for assessing the hypotheses. The study concluded that users give significantly higher importance to information about the product features than aesthetic appeal. The difference was statistically significant, with a critical value of $\alpha=0.05$. The finding is also supported by Chang and Wildt (1994). They reported that product information is indirectly connected to the perceived quality and positively influences the purchase intention.

Further, users also gave a higher level of importance to a family and friends recommendation than a sales consultant's recommendation. The difference in family and

friend's recommendation to a sales consultant's recommendation was significant, with a critical value of $\alpha=0.05$. The higher scores for friends and family members' recommendations were driven by the fact that friends and family members are user's well-wishers. Besides, friends and family do not have any monetary gain from the purchase, contributing to their higher trust level. In contrast, sales consultants have profit from product purchases; hence their recommendations have less credibility.

Lastly, users also gave significantly higher importance to TV informative programs than traditional TV commercials. The statistical significance of the difference showed significance with a critical value of $\alpha=0.05$. The finding is also consistent with Biswas et al. (2006), while giving further reasoning. Biswas et al. studied high technology-oriented products and suggested that an expert endorsement has a more substantial effect than a celebrity endorsement in reducing risk perceptions. The increased effects of an expert endorsement are driven by the planned purchase nature of high technology products. Findings from the research also have several managerial implications, some of which are cited here. Based on the study, product designers in planned purchase categories should give higher priority in bringing product features to life than aesthetic elements. For marketers, the study suggests that, for planned purchase categories, a holistic commercialization plan going beyond in-store executions are required to win the target users' purchase intention.

RQ5: Can customization-based design strategy help influence user motivation for product purchase?

Phase 2 of the research also provided insights into customization-based design strategies. Using pen and sports shoe categories, section 4.4 of the thesis concluded that Indian users prefer customization, especially when features are relevant. About 83% of the users preferred customization in at least one of the four scenarios tested. Among users preferred customization, over 75% expressed willingness to pay a higher price for at least one scenario. The willingness to pay the higher price suggests that user motivations were positively influenced by customization.

The research also provided insights on customization-based design strategies. Interestingly, for sports shoes, personalized customization with the imprinting of the user's name was only preferred by about 39% users compared to standard options (61%). However, for colors, customization was preferred (64.8%) over standard colors (35.2%).

For the pen, 68.5% of the users preferred customization of imprinting users' names. Color customization was preferred by 55.6% of users. This shows the importance of category-specific user studies for product designers.

Features for customization must be carefully selected based on category-specific knowledge to ensure user acceptance. Gender-specific differences were also observed in preference for customization. Over 94 % of female users expressed interest in customization, while only about 78% of male users were interested in customization. Among users selected customization, 82% of females expressed willingness to pay a higher price, while male users were 71%.

The user study provided valuable insights to designers and marketing managers. The study revealed that Indian users would prefer customization, provided relevant features are used. This is consistent with the findings of Moon et al. (2008) and Mehra et al. (2015). However, opposed to Mehra et al. current research showed that users are willing to pay a higher price for customization, provided the features are relevant. It was also observed that the user's willingness to pay more for customization was higher for the category with lower purchase frequency.

6.2.3 Consolidated Findings from Phase 3 of the Research

Phase 3 research involved a quantitative user study among consumer goods buyers of the Indian market. The user study helped identify the role of product experience in product purchases and the relative importance of various brand, product, and package-related attributes. Besides, an experiment involving in-context user studies using a Physical Laboratory Store (PLS) was also conducted for assessing the role of product experience in user-based brand equity. Experiments in Phase 3 helped answer research questions about the role of product experience in product purchase (RQ6) and user-based brand equity (RQ7).

RQ6: What is the role of product experience in product purchase?

A quantitative survey-based user study was conducted among 126 consumer goods users from various parts of India to identify the role of product experience in purchases. The study assessed the importance of various product, package, and brand-related attributes in purchase decisions. Product features such as 'texture', 'fragrance', 'quality', 'efficacy', and 'usage experience' were selected. For package attributes, 'color', 'shape', 'aesthetics', and 'convenience' were chosen. Lastly, brand attributes

such as 'brand name', 'advertisements', 'country of origin', 'word of mouth (WOM)', and 'value' were selected. Based on the quantitative user study, product experience related features like the 'quality' and 'good user experience' received the highest median score. Other product attributes, such as the 'efficacy', 'fragrance', and 'texture', also received a high median score (four). Among brand-related attributes, 'brand name', 'price (value perception)', and 'recommendations from family and friends' received a higher score (median score of four) than 'advertisements', 'celebrity', and 'salespersons recommendation'. Package attributes came as relatively less important compared to product attributes. Among package attributes, 'convenience' and 'beautiful look' received a relatively higher median score (three) than shape and color (two).

In addition to the median scores, statistical analysis using a t-test was performed. The t-test revealed that 'good user experience' is significantly more critical than all brand-related and package-related attributes with a p-value of <0.001. The importance of 'good product usage experience' was also evident when asked about past purchase dissatisfactions. Eighty-one percent of the users indicated that 'unpleasant usage experience' is one of the top three factors that causes dissatisfaction. Further, over 88% of the users indicated 'good product user experience' as one of the top three essential factors in making a repeat purchase. Findings from the current research are also consistent with Kempf and Smith (1998). They suggested that product usage experience, especially the first trial, is an essential factor in influencing user perception about brand and purchase intentions (Kempf & Smith, 1998).

The Physical Laboratory Store (PLS) experiment provided additional validation to the above findings. The analysis of factors influenced purchase intention revealed that good user experience had the most significant influence, with highest median score. Lastly, a top box rating based analysis was also conducted. It also supported the importance of good product usage experience in product purchases. Good user experience received the highest top box rating (51%) among all factors influencing purchase decisions.

RQ7: Is there any relationship between product experience and user-based brand equity?

User studies conducted in Phase 3 provided insights into the relationship between product experience and user-based brand equity. Studies were conducted using a

Physical Laboratory Store (PLS) for providing a simulated shopping experience. A PLS is a mock-up store with multilevel shelving units arranged in aisles and a checkout space, with a similar look and feel to a real store. At the PLS, users were able to touch and feel the products like the real store. Haircare shampoo and liquid handwash products were used for the study due to the user relevancy. The product display conditions in PLS closely matched the best predictions of available choices in the test market.

A pre-test involving experiencing ten shampoo products and nine liquid handwash products were conducted to identify 'test products' for the Main test. The Main test had two user groups: an experimental group and a control group. The users in the experimental group went through product experience before simulating product purchases. The control group simulated product purchases without experiencing the products. Post the product purchase, users completed a questionnaire about user-based brand equity.

The effect of product experience on user-based brand equity was assessed by using two sets of data analysis. The first set compared the experimental group and the control group. The second set compared products with superior user experience and inferior user experience. The data analysis revealed that providing a point of sale product experience positively affects user-based brand equity.

The experimental group users rated one point higher median score than the control group for brand association questions. This included 'likability', 'uniqueness', 'brand personality', 'brand image', and 'trust in the company'. Analysis of top box rating also supported the influence of product experience. For factors such as 'interesting brand' (13% higher), 'likability' (9% higher), 'brand image' (9% higher), 'smarter purchase choice' (8% higher), and 'unique brand image' (7% higher), experimental group received a noticeably higher top box rating.

Among perceived-quality related attributes, the experimental group received one point higher median score for 'likelihood of the product from the brand is functional'. Top box ratings also showed a similar trend. For attributes such as 'better than the current product' (10% higher), 'reliable' (7% higher), 'functional' (6% higher), and 'trust quality of the product' (5% higher), a higher percent of users in experimental group rated nine.

For brand loyalty related questions, the experimental group rated one-point higher median score for 'brand preference', 'willingness to pay a price premium', 'fan of the

brand', 'loyalty', and 'satisfaction'. A similar trend was also observed for top box ratings. Attributes that received a noticeably higher top box rating included 'purchase intention' (11% to 13% higher), 'willingness to pay price premium' (9% higher), and 'loyalty' (9% higher). For brand awareness, the median scores were the same for test and control groups. However, the experimental group received substantially higher top box ratings. For 'recognizing the brand among other brands', 38% of users in the experimental group rated nine. In comparison, only 16% in the control group rated nine. Based on the assessment, it can be concluded that providing a point of sale product experience have a noticeable positive effect on user-based brand equity.

The second set of data analysis was conducted by comparing products with the superior and inferior product experience, defined based on the pre-test. The products that received a higher score for 'usage experience' have also received higher user-based brand equity scores. For differentiation attributes, products in the superior experience group received a three-point higher median score for 'differentiation', and 'smarter purchase choice'. For brand associations related attributes, products in the superior product experience group received four points higher median score than the inferior experience group. For brand personality, the products in the superior usage experience group received a three-point higher median score, suggesting an obvious superiority. A similar increase in three points was observed for all perceived quality-related and brand loyalty related attributes. These included the 'willingness to repurchase', the 'likelihood of recommending the brand', 'preference for buying the brand', 'becoming a fan of the brand', 'loyal to the brand', 'first purchase choice among competing brands', and 'perception of having an impression of more than just a product'. Besides, a four points increase was observed for the 'likelihood of repurchase'.

Further, a two to four points increase in median score was observed for products in superior experience group for attributes related to brand awareness. Lastly, the superior experience group also received higher median scores for 'trust in the company' and 'overall brand equity'. The findings suggest that product experience and user-based brand equity are directly related.

Phase 3 research concluded that good user experience is the most critical factor in influencing purchase decisions and building user-based brand equity. Hence, companies looking to build long-standing user relationships should focus on developing products with better user experiences.

6.3 Fogg's Behavior Model and Design Strategies

According to Fogg's Behavior Model (Fogg, 2009), the behavior is a product of motivation, ability, and trigger. For a person to perform a behavior, the person must be sufficiently motivated, have the ability, and be triggered to perform the behavior. It is also applicable to product purchases. For any user to perform a purchase, the user must be motivated, capable of purchasing the product (e.g., have money and access to the product), and triggered to purchase the product. Motivation in the case of product purchase is linked to the relevancy of the product. Product designers must ensure that the product features are relevant for the users and incorporate features that add value to the user. This is especially important in planned purchases, as planned purchases involve a longer decision-making process. Ability in product purchase could be related to value for money, or availability, e.g., distribution of the product at accessible locations. The trigger in product purchases could be provided by a point of sale product communications, promotion signages, or point of sale product experiences.

The target behavior will not occur unless all three factors coincide (Fogg, 2009). However, the level at which each of these factors must occur could vary depending on the purchase situations. If the user is already above the threshold for motivation and ability, even a small trigger would be enough to perform the target behavior. In product purchases, this could be a product communication at the sale or a sales consultant. If the user has a strong ability but lacks motivation, weak triggers may not be enough to perform product purchases. Product design could play an essential role in such scenarios. Designs with significant motivational or trigger elements could enable purchase by bringing the user above the threshold to perform the behavior.

Fogg's model, together with buying behavior, could help in formulating design strategies. Based on the Fogg's model, Theory of Planned Purchase, and Impulsive Buying Model, two fundamental design strategies are proposed: design to trigger and design to motivate. The decision to choose a trigger or motivate strategy could be made based on the anticipated purchase scenario. If the product is expected to be in the planned purchase, the designer should follow a motivational strategy. On the other hand, if the product is impulsive buying, the designer should use trigger strategies. Once the product positioning is defined, the designer could design products with a trigger or motivational elements. For instance, an advertisement with an image of a baby and mom sleeping

peacefully without distractions could increase motivation to influence the baby care product purchase.

6.4 Summary of Research Objectives and Research Questions

As reported in section 1.8 of the thesis, the broad objective of the current research was to study user behavior in product purchases. It included identifying factors influencing product selection in planned and impulsive buying, investigating design strategies, and assessing product experience's effects on product purchase and user-based brand equity. A table summarizing the research objectives and respective sections of the thesis addressed the objectives are presented in Table 6.1.

Table 6.1: Summary of the research objective and thesis sections addressed the objectives.

Research Objectives	Reference Sections
<ul style="list-style-type: none"> To study different types of user behavior in product purchase. 	Chapters 1 and 2 summarized the literature review of user behavior models in product purchases and factors influencing product purchases. Besides, sections 4.2 and 4.3 provided additional insights on user behavior in planned purchasing.
<ul style="list-style-type: none"> To study product design strategies to influence product selection. 	Chapter 3 investigated package graphic-based design strategies for shampoo and chocolate categories. Besides, section 4.4 assessed user acceptance of customization-based design strategy using pen and sports shoe categories.
<ul style="list-style-type: none"> To study various product, package, and brand-related factors influencing purchase decision making. 	Qualitative user studies reported in section 4.2 helped identify factors influencing planned purchase decision making. Additionally, section 5.2 investigated the effect of various product, package, and brand-related attributes in consumer goods purchase decision-making.
<ul style="list-style-type: none"> To study the relative importance of various factors in purchase decision making. 	Using a quantitative user study, section 4.3 assessed the relative importance of various factors influencing planned purchasing. Sections 5.2 and 5.3 investigated the relative importance of various product, package, and brand-related attributes on Indian user's purchase decisions.
<ul style="list-style-type: none"> To study the effects of product experience on product purchase and user-based brand equity. 	Using experiments involving a physical laboratory store, sections 5.2 and 5.3 assessed the role of product experience on product purchases and user-based brand equity.

The current research was conducted based on research gaps identified in existing research on user behavior understanding in product purchase, specifically in consumer goods. The research has provided valuable insights relevant to product designers, marketers, and academics. A table summarizing the research questions and the sections investigated the respective research questions are presented in Table 6.2.

Table 6.2: Summary of research questions and thesis sections addressed the research questions.

Research Questions	Reference Sections
RQ1: Do package graphics influence users' perception of the product?	Chapter 3 presented user studies involving package graphics of shampoo and chocolate categories. The studies suggested that user perception of the product could be influenced using package graphics.
RQ2: Could package graphic design influence the user's perception of the brand?	Based on a user study involving the assessment of brand archetypes of shampoo products, section 3.4 suggested that user's perceptions of the brand could be changed using package graphics.
RQ3: What are the various factors that influence the user in planned purchase decision making?	Using qualitative user studies, section 4.2 provided insights on various factors influencing planned purchase decision making.
RQ 4: What is the relative importance of various factors in planned purchase decision making?	Section 4.3 of the thesis provided learnings about the relative importance of factors influencing planned purchase decisions.
RQ5: Can customization-based design strategy help influence user motivation for product purchase?	Based on online user studies reported in section 4.4, current research concluded that user motivation for purchase could be influenced using customization-based design strategies.
RQ6: What is the role of product experience in product purchase?	Based on the quantitative user study reported in section 5.2, current research concluded that user experience is the most important factor influencing consumer goods purchases.
RQ7: Is there any relationship between product experience and user-based brand equity?	Based on PLS user studies reported in section 5.3, the current research found that user experience and user-based brand equity are directly related.

6.5 Observations on Planned and Impulsive Purchases

Planned and impulsive purchases are different in how the decisions are made (Bellini et al., 2017). Planned purchases are pre-planned (Yazdanpanah & Forouzani, 2015), while impulsive buyings are unplanned (Steenburg & Naderi, 2020; Tirmizi et al., 2009).

Users undergo planned and unplanned purchases. Some product categories are planned in nature, e.g., a user buying a car for the family. Purchasing a car is once in a several years activity. For several users, especially in low-income markets, it is once in a lifetime activity. In such categories, generally, purchases are planned. The user goes through planning, information searching, test drive available options, taking opinions from friends, family, and experts, and doing financial planning before making a purchase decision. Buying expensive mobile phones and home appliances are also other examples.

However, there are some grey areas too. For instance, in the luxury cars category, purchase decisions could be impulsive. Users who have a higher ability tend to do impulsive buying even for generally planned categories. In planned purchases, decision making is rational (Ajzen, 1991). On the other hand, impulsive buying result from high emotional activation, low cognitive control, and reactive behavior (Weinberg & Gottwald, 1982). Shopping pleasure is a driver of impulsive purchasing (Lee & Yi, 2008). In impulsive buying, users buy products outside of their shopping plans (Hui et al., 2013).

For consumer goods, some categories are planned in nature, e.g., organic food (Al-Swidi et al., 2014; Singh & Verma 2017). For categories requiring low ability, e.g., purchasing a chocolate product, users tend to make impulsive purchases to satisfy their urge (Suryawardani et al., 2017). Impulse buying is an essential source for retailers (Flamand et al., 2016). Airport duty-free shopping is another example of impulsive buying (Sohn & Lee, 2016). Increased shopping involvement in airport duty-free stores results in cognitive impulse buying. However, there are some grey areas too. For example, some users tend to buy products at airports for tax savings. In such examples, users have a prior formed purchase intention before visiting the store; hence it is a planned purchase.

Planned and impulsive buying, to some extent, can be identified based on the product category. Product designers could design products based on category-specific

insights, use trigger or motivational design strategies depending on the category's impulsive and planned nature. However, there are grey areas. Hence the product designers and marketers should always include some impulsive components even for generally planned categories, and vice versa.

6.6 Key Contributions from the Research

Findings from current research provided valuable insights for product designers, marketing managers, and academic researchers in a similar field. The key contributions from current research are presented below.

1. Development of package graphic-based design strategy for hair shampoos and chocolate categories

The research described in this thesis is the first to develop such a design strategy for consumer goods in the Indian market. Based on observations from qualitative content analysis, Eye Movement Recorder studies, and qualitative and quantitative user studies, current research developed following guidelines for package graphic designers.

1. Among Design Elements, the brand name's typography should be given the highest weightage with the largest font size. The brand name should be positioned towards the top of the design.
2. The presence of a logo or ingredient visuals would also help drive user attention. It may be given the second-highest weightage. If used correctly, both can drive attention.
3. Coloring the cap or cap opening area with colors of the logo will capture attention. The use of a gold band on the cap would drive premiumness. For products that use a natural ingredient communication, colors of the ingredient visual may be used to highlight the cap.
4. Too many texts and visuals on the graphics would make the design unattractive. It may also deviate consumer attention.
5. Information with higher importance should be placed towards the top of the bottle (upper half). In contrast, lesser important information may be placed towards the bottom. This area may be used to communicate product type, benefit, and quantity. Too much information here may be unattractive.

2. Identified factors influencing users in planned purchasing of consumer goods, especially products like Bluetooth headsets

Current research provided insights on factors influencing the users on planned purchasing decisions. The research findings provide valuable knowledge to the marketers and product designers on factors they should consider in product design and marketing.

Family and Friends Recommendation: Family and friends recommendation, particularly those who have prior knowledge and experience of the category, has the highest level of influence on planned purchase decisions. Marketers in planned categories should give higher importance to the word of mouth communication. One way of achieving this is by sampling products to the target user base. Family and friends recommendations are especially important when users new to the category. For example, a new mom buying baby products.

Expert Opinion: Unlike impulsive buying, in planned purchasing, users provide a high weightage to category experts' opinion. E.g., in the toothpaste category, users may provide higher importance to a dentist's recommendation than to a celebrity recommendation. Companies in planned categories could explore different marketing channels for such products (e.g., selling vitamin products through physicians) or engaging key opinion leaders in their marketing campaigns.

Online Reviews: Users provide quality attention and importance to online ratings are reviews. It was observed that users across all markets refer to user reviews and product ratings before making a significant purchase decision. In different markets, users refer to different online sources. Marketers need to ensure that their products have a reasonably high online rating.

Brand Website: Users visit brand websites and read about product information to gain knowledge about the category. Brand website browsing habit is pronounced when users buy products from new categories. Information written on the brand website has trustworthiness. Users believe that authorities in the market would monitor the brand websites and penalize them for false or misleading information. Creating a credible brand website is recommended for products in planned purchase categories.

Brand Advertisements: Advertisements have a minimal influence on planned purchase decisions. Advertisements, particularly TV advertisements, give a big brand

image. The big brand image indirectly increases user confidence, trust, and value perception.

In-store Presence of the Brand: Like advertisements, users associate the better in-store presence of the product to a big brand image, a positive driver for purchase. Although purchase decisions are not made at the store, past observations from store browsing influence the purchase decisions. A big brand image is particularly important for new product launches.

In-store Sales Consultants: Branded in-store consultants has minimal influence on planned purchase decisions. It is because of their perceived lack of technical knowledge (Education) and their profitability from sales.

3. Customization-based design strategy for the Indian market, especially products like sports shoes and pen

Current research revealed that Indian users would prefer customization, especially for products like sports shoes and pen, provided the features provided for customization are user-relevant. Product designers in the Indian market could use customization as a design strategy to drive user motivation and price premium. Further, the research also gave insights on potential customization ideas for sports shoe and pen categories. For the sports shoes, customization of colors would be a better strategy than imprinting the user name. On the other hand, for pen, imprinting the user name is a better strategy than customizing colors.

4. Role of Product Experience on Indian users Consumer Goods Product Purchase

Current research provided quantitative insights about various product, package, and brand-related attributes influencing the Indian users on consumer goods purchases. These insights provide valuable information for product designers and marketing managers in formulating product design and commercialization strategies.

1. Product experience features like the quality and good user experience are the most crucial factors for Indian users in consumer goods purchases. Good user experience is also essential for driving satisfaction and repeat purchases. Hence product designers should give the highest importance to the product experience.

2. After quality and overall user experience, the next priorities are product efficacy, fragrance, and product texture.
 3. Among brand-related attributes, marketing managers should give relatively high importance to the brand name, price (value perception), and family and friends' recommendations than advertisements, celebrity, and salespersons recommendations.
 4. Package designers should give relatively higher importance to the convenience and overall aesthetics than design elements like shape and color. From the user's point of view, importance is given to convenience and aesthetics. However, designers' freedom should be used to provide appropriate importance to design elements like the shape and color for achieving convenience and aesthetic appeal.
- 5. Appraised design research methodology to research user-based brand equity and to assess the effects of product experience**

Experiments reported in this thesis involved comprehensive user studies in measuring user-based brand equity. Development of the questionnaires (33 questions, reported in section 5.3.1.2) for measuring user-based brand equity was based on established and well-validated constructs like Aaker (1996), Schivinski and Dabrowski (2014), and Yoo et al. (2000). These questionnaires can be used for future researches in a similar field. Further, the principles used for developing the physical laboratory store (PLS) reported in the thesis would also help market researchers. Although current research only used shampoos and liquid handwash products, the principles used for developing PLS could also apply to other consumer goods. The research methodology for assessing purchase decisions could be used for future researches in the same field. To some extent, the approach used in current research could help marketers predict the user acceptance of their products. Lastly, experiments reported in this thesis can also inspire researchers in point of sale product experiences.

6. Relationship between user-experience and user-based brand equity

Based on the user study involving a physical laboratory store, current research established that user experience is positively related to user-based brand equity. Further, the research also concluded that providing point of sale product experience positively influences the user-based brand equity of shampoo and handwash products. These suggest that product designers working on similar products should give the highest

importance to good product usage experience. For marketing managers working on similar products, commercialization strategies involving point of sale product experience could help build user-based brand equity.

6.7 Limitations

Current research is also had certain limitations. The major limitations of the research are presented below.

1. The investigation of design strategies for impulsive buying only considered package graphic-based design strategies. Although package graphics are influential and present at the point of sale, there could be other ways of influencing the users, e.g., using package shape and store ambiance. Hence current research did not provide holistic insights to influence users in impulsive buying. Besides, the package graphic study of shampoo products was conducted only on white color packages. Hence findings from current research cannot be generalized to all shampoo products. Further, cross-category applicability if the design strategy was explored only using one category (chocolate). Hence, the findings current research cannot be generalized to the broader category of impulsive buying products.
2. The investigation of design strategies for planned purchasing was limited to customization. Hence the research did not provide insights to define the most suitable design strategies product designers should follow. Further, investigation of the customization was conducted using online user studies. Hence users were not able to physically evaluate the product, which limits the scope of the research. Although there is an increase in online shopping behavior across global markets, physical stores are still predominant. The findings from current research may not apply to physical stores.
3. The base sizes used in the experiments were small, varying from 11 to 126. As a result, it did not reveal insights on demographics differences and cultural and gender influences.
4. Most of the experiments were focused on social media active urban users, as recruitments for most of the studies were done using social media. Hence, findings from current research cannot be generalized across the country.
5. The experimental set up used for the shampoo experience did not allow users to wash the hair; instead, users had to wash their hands using shampoo. Washing the

hand is not a correct simulation of using shampoo products. While it allowed the users to have some level of product experience, the usage in a different context may have impacted user perceptions of the products and brands.

6.8 Future Scope

A few recommendations for future research are presented.

1. The haircare package graphic study in current research only investigated white packages. Hence the findings from the research may not be relevant for other colors. Future studies involving package graphics of products with other colors would be required to assess the design strategy's broader applicability. The cross-category applicability of the design strategy was assessed using chocolate products. Future studies extending it to other impulsive buying categories would be relevant for product designers. Such researches would help designers to come up with strategies suitable across various categories.
2. Investigation of customization-based design strategies was conducted using online user studies. Future studies using physical products and involving qualitative user interviews and Eye Movement Recorder based studies are recommended. Such researches would help to get an in-depth insight on design elements to drive user motivation. Further, current research only investigated the imprinting of the username and customization of colors. Future user studies to define other relevant customizations for various categories are recommended to help product designers.
3. Findings from the experiments and literature investigating similar concepts strongly advocate for future studies for continuous user behavior understanding. It is vital due to the evolving market environment and changing user behavior. Future research with a higher base size would be relevant to assess the effect of the cultural differences, gender-specific differences, and differences across age groups. Such research would be useful for academicians, product designers, and marketers.

6.9 Chapter Summary

This chapter presented consolidated findings of the research, along with the key contributions. Limitations of the experiments and future scope have also been reported.

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Appendix 1A

Hair Care Package Graphics Study (Experiment 1, Chapter 3)

Interview Flow

Warm-up

- Thank the participant for joining the study
- Self-Introduction
- Provide a brief description of the study

Message track from briefing the user about the study

We are doing a study to assess the aesthetic appeal of package graphics of a few hair care products, particularly shampoo. We will be asking a few questions about your preferences and reasons for the preferences. There are no right or wrong answers. Please provide your response as a hair care consumer.

In the first part of the study, we would be showing a series of package visuals. Please imagine that you are browsing through a website to decide which shampoo to buy when you go shopping next time. Some visuals are single pack shots, while others are groups of two, three, or eight. Take your own time to look at it. Each visual will be separated with an empty white screen. Please try to be as usual as possible in the way you look at the visuals and time spending on the visuals. The first screen will be an empty white screen when you are ready to start, press any key on the keyboard, which would be a welcome message. When you have finished with the message, press any key for the next screen, which would be an empty white screen; when you are ready for the first visual, press any key again. Please do not take your eyes off the screen when you press a key (always keep eyes on the screen). Continue this till you finish all the visuals.

In the second part, we go through the entire group visuals one by one (one visual of a group of eight, two visuals of a group of three and one visual of a group of two). A few questions will be asked to understand your preferences for the package graphic.

In the third part, all the eight single package visuals will be shown one after another. You would be given a sheet with 18 words; for each word, you can rate the visual on a scale of 5. Rate it five if you strongly agree with the word in relation to the package graphic. Rate it four if you agree to the word, three if neither agrees nor disagree,

two if you disagree and one if you strongly disagree. Repeat the exercise for all the eight visuals.

In the fourth and final part, we will review your eye tracking pattern, and a few questions would be asked based on it. Please note, at all parts of the study, please provide your response based on the artwork/design you see on the package, regardless of brand, benefit, shape, price, etc.

Part 1: Eye Tracking Exercise

- Provide an overview of how eye tracking works
- Provide instruction on how the calibration is done and calibrate the panelist
- Provide the context again.

The context for the users: For this part, we would be showing a series of package visuals. Please imagine that you are browsing through a website to decide which shampoo to buy when you go shopping next time. Some visuals are single pack shots, while others are groups of two, three, or eight. Take your own time to look at it. Each visual will be separated with an empty white screen. Please try to be as usual as possible in the way you look at the visuals and time spending on the visuals. The first screen will be an empty white screen when you are ready to start, press any key to go to the next visual, which would be a welcome message. When you are finished with the message, press any key for the next screen, which would be an empty white screen, when you are ready for the first visual, press 'any key' again. Please do not take your eyes off the screen when you press a key (always keep eyes on the screen). Continue this till you finish all the visuals.

Part 2: Qualitative Learning

Provide context to the users

In this part, we go through the entire group visuals one by one (one visual of a group of eight, two visuals of a group of three and one visual of a group of two). A few questions will be asked to understand your preferences for the package graphic. Please look at the visual regardless of brand, shape, functionality, price, etc. only from package graphic standpoint (i.e., color/color combination, words/fonts/, visuals, logos, etc...).

Show All Eight Together

- Can you please tell me which graphics attract you in this group?
- Why does it attract you?
- What is not attractive?
- Why is it not attractive?
- Which artwork is the most 'premium' one?
- Why do you think it is premium?
- Which one is you believe is for you (ok to select more than one)? Why?
- Which one is culturally fitting to India (ok to select more than one)?
- Do you care about cultural fitness when you buy cosmetic products?
- Which one would you buy if only these are available in the Market?
- Probe reason, if buying choice is different

Show Group of Three American Brands Together

- Can you please tell me which graphics attract you in this group?
- Why does it attract you?
- What is not attractive?
- Why is it not attractive?
- Which artwork is the most 'premium' one?
- Why do you think it is premium?
- Which one is you believe is for you (ok to select more than one)? Why?
- Which one is culturally fitting to India (ok to select more than one)?
- Do you care about cultural fitness when you buy cosmetic products?
- Which one would you buy if only these are available in the Market?
- Probe reason, if buying choice is different

Show Three Indian Brands Together

- Can you please tell me which graphics attract you in this group?
- Why does it attract you?
- What is not attractive?
- Why is it not attractive?
- Which artwork is the most 'premium' one?
- Why do you think it is premium?
- Which one is you believe is for you (ok to select more than one)? Why?

- Which one is culturally fitting to India (ok to select more than one)?
- Do you care about cultural fitness when you buy cosmetic products?
- Which one would you buy if only these are available in the Market?
- Probe reason, if buying choice is different

Show Both Indian and US Pantene together

- Can you please tell me which graphics attract you in this group?
- Why does it attract you?
- What is not attractive?
- Why is it not attractive?
- Which artwork is the most 'premium' one?
- Why do you think it is premium?
- Which one is you believe is for you (ok to select more than one)? Why?
- Which one is culturally fitting to India (ok to select more than one)?
- Do you care about cultural fitness when you buy cosmetic products?
- Which one would you buy if only these are available in the Market?
- Probe reason, if buying choice is different

Part 3: Explicit Rating

- Provide the context to the user

In this part, all the eight single package visuals will be shown one after another. You would be given a sheet with 18 words; for each word, you can rate the visual on a scale of 5. Rate it five if you strongly agree with the word in relation to the package graphic. Rate it four if you agree to the word, three if neither agrees nor disagree, two if you disagree and one if you strongly disagree. Repeat the exercise for all the eight visuals.

Please look at the visual regardless of brand, shape, functionality, price, etc., only from package graphic standpoint (i.e., color/color combination, words/fonts/, visuals, logos, etc.).

Record Sheet for Product A

Q1. Looking at the visuals again, if regardless of brand, benefit, shape, price, etc., only from package graphics standpoint and you as a consumer, please input how you rate graphics for the below attributes.

Attributes	Strongly Agree	Agree	Neither agree Nor Disagree	Disagree	Strongly Disagree
	5	4	3	2	1
BAD					
BEAUTIFUL					
BORING					
CHEAP					
CONFUSING					
DIFFERENT					
GOOD					
HATE					
INNOVATIVE					
LOVE					
INTERESTING					
NEW					
PREMIUM					
SHINE					
ORDINARY					
SIMPLE					
TRUSTED					
UGLY					

Record Sheet for Product B

Q1. Looking at the visuals again, if regardless of brand, benefit, shape, price, etc., only from package graphics standpoint and you as a consumer, please input how you rate graphics for the below attributes.

Attributes	Strongly Agree 5	Agree 4	Neither agree Nor Disagree 3	Disagree 2	Strongly Disagree 1
BAD					
BEAUTIFUL					
BORING					
CHEAP					
CONFUSING					
DIFFERENT					
GOOD					
HATE					
INNOVATIVE					
LOVE					
INTERESTING					
NEW					
PREMIUM					
SHINE					
ORDINARY					
SIMPLE					
TRUSTED					
UGLY					

Record Sheet for Product C

Q1. Looking at the visuals again, if regardless of brand, benefit, shape, price, etc., only from package graphics standpoint and you as a consumer, please input how you rate graphics for the below attributes.

Attributes	Strongly Agree 5	Agree 4	Neither agree Nor Disagree 3	Disagree 2	Strongly Disagree 1
BAD					
BEAUTIFUL					
BORING					
CHEAP					
CONFUSING					
DIFFERENT					
GOOD					
HATE					
INNOVATIVE					
LOVE					
INTERESTING					
NEW					
PREMIUM					
SHINE					
ORDINARY					
SIMPLE					
TRUSTED					
UGLY					

Record Sheet for Product D

Q1. Looking at the visuals again, if regardless of brand, benefit, shape, price, etc., only from package graphics standpoint and you as a consumer, please input how you rate graphics for the below attributes.

Attributes	Strongly Agree 5	Agree 4	Neither agree Nor Disagree 3	Disagree 2	Strongly Disagree 1
BAD					
BEAUTIFUL					
BORING					
CHEAP					
CONFUSING					
DIFFERENT					
GOOD					
HATE					
INNOVATIVE					
LOVE					
INTERESTING					
NEW					
PREMIUM					
SHINE					
ORDINARY					
SIMPLE					
TRUSTED					
UGLY					

Record Sheet for Product E

Q1. Looking at the visuals again, if regardless of brand, benefit, shape, price, etc., only from package graphics standpoint and you as a consumer, please input how you rate graphics for the below attributes.

Attributes	Strongly Agree 5	Agree 4	Neither agree Nor Disagree 3	Disagree 2	Strongly Disagree 1
BAD					
BEAUTIFUL					
BORING					
CHEAP					
CONFUSING					
DIFFERENT					
GOOD					
HATE					
INNOVATIVE					
LOVE					
INTERESTING					
NEW					
PREMIUM					
SHINE					
ORDINARY					
SIMPLE					
TRUSTED					
UGLY					

Record Sheet for Product F

Q1. Looking at the visuals again, if regardless of brand, benefit, shape, price, etc., only from package graphics standpoint and you as a consumer, please input how you rate graphics for the below attributes.

Attributes	Strongly Agree 5	Agree 4	Neither agree Nor Disagree 3	Disagree 2	Strongly Disagree 1
BAD					
BEAUTIFUL					
BORING					
CHEAP					
CONFUSING					
DIFFERENT					
GOOD					
HATE					
INNOVATIVE					
LOVE					
INTERESTING					
NEW					
PREMIUM					
SHINE					
ORDINARY					
SIMPLE					
TRUSTED					
UGLY					

Record Sheet for Product G

Q1. Looking at the visuals again, if regardless of brand, benefit, shape, price, etc., only from package graphics standpoint and you as a consumer, please input how you rate graphics for the below attributes.

Attributes	Strongly Agree 5	Agree 4	Neither agree Nor Disagree 3	Disagree 2	Strongly Disagree 1
BAD					
BEAUTIFUL					
BORING					
CHEAP					
CONFUSING					
DIFFERENT					
GOOD					
HATE					
INNOVATIVE					
LOVE					
INTERESTING					
NEW					
PREMIUM					
SHINE					
ORDINARY					
SIMPLE					
TRUSTED					
UGLY					

Record Sheet for Product H

Q1. Looking at the visuals again, if regardless of brand, benefit, shape, price, etc., only from package graphics standpoint and you as a consumer, please input how you rate graphics for the below attributes.

Attributes	Strongly Agree 5	Agree 4	Neither agree Nor Disagree 3	Disagree 2	Strongly Disagree 1
BAD					
BEAUTIFUL					
BORING					
CHEAP					
CONFUSING					
DIFFERENT					
GOOD					
HATE					
INNOVATIVE					
LOVE					
INTERESTING					
NEW					
PREMIUM					
SHINE					
ORDINARY					
SIMPLE					
TRUSTED					
UGLY					

Q2. What are the different hair care products you commonly use on your hair? Types and brands

Informed Consent for the Users

The UE lab at IITG is conducting experiments and collecting data from users as part of its ongoing projects and research work. The lab will record your participation in experiments and collect data using techniques such as interviews, videotapes, digital capture, questioners, etc.

Information and data collected are likely to be used as part of published papers, reports, and presentations in academics.

We assure you that no harm or ill effect or risk involved in this experiment.

This experiment is being conducted under a qualified Psychologist and Researcher.

Your Personal identity and personal information collected will not be revealed at any point in time.

You can withdraw from the experiment at any point for time if you wish to. Participation is voluntary.

Should you have any questions on your participation/ experiment/ our researchers will be glad to answer them and address your concerns.

We thank you for your time, enthusiasm, and contribution to scientific research in India.

We Request you to give your informed consent by signing in this or on the accompanying sheet.

I hereby confirm that I have read and understood the above information, and I voluntarily agree to participate in the project. I provide my consent by signing below.

Signature:

Name:

Date:

Appendix 1B

Images from Hair Care Package Graphics Study (Experiment 1, Chapter 3)

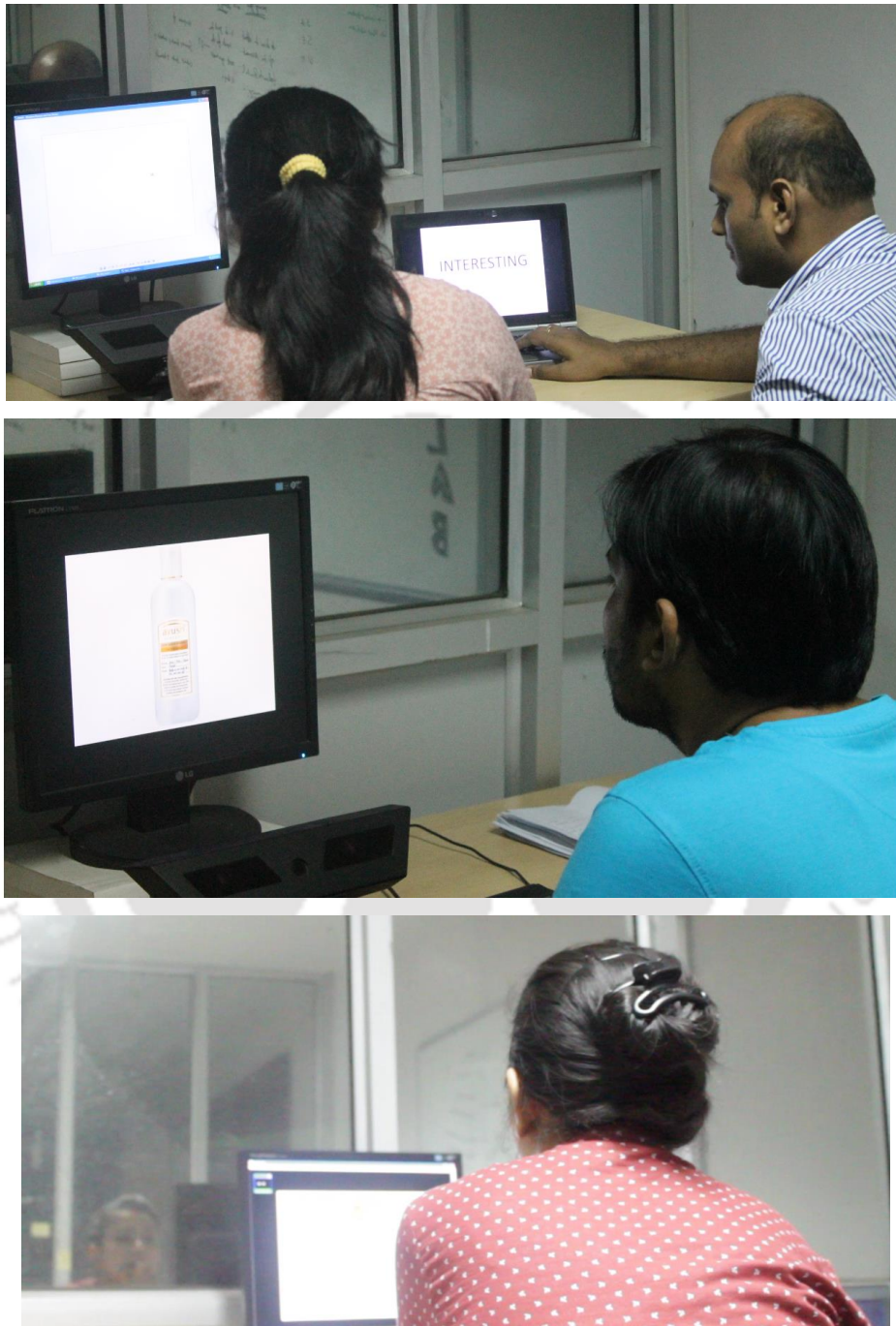


Figure A 1: Examples of images from Data collection.



Figure A 2: Example of Gaze plot data received from eye movement recorder based studies (when package graphics were shown one after another).



Figure A 3: Example of Gaze plot data received from eye movement recorder based studies (when three package graphics were shown together).

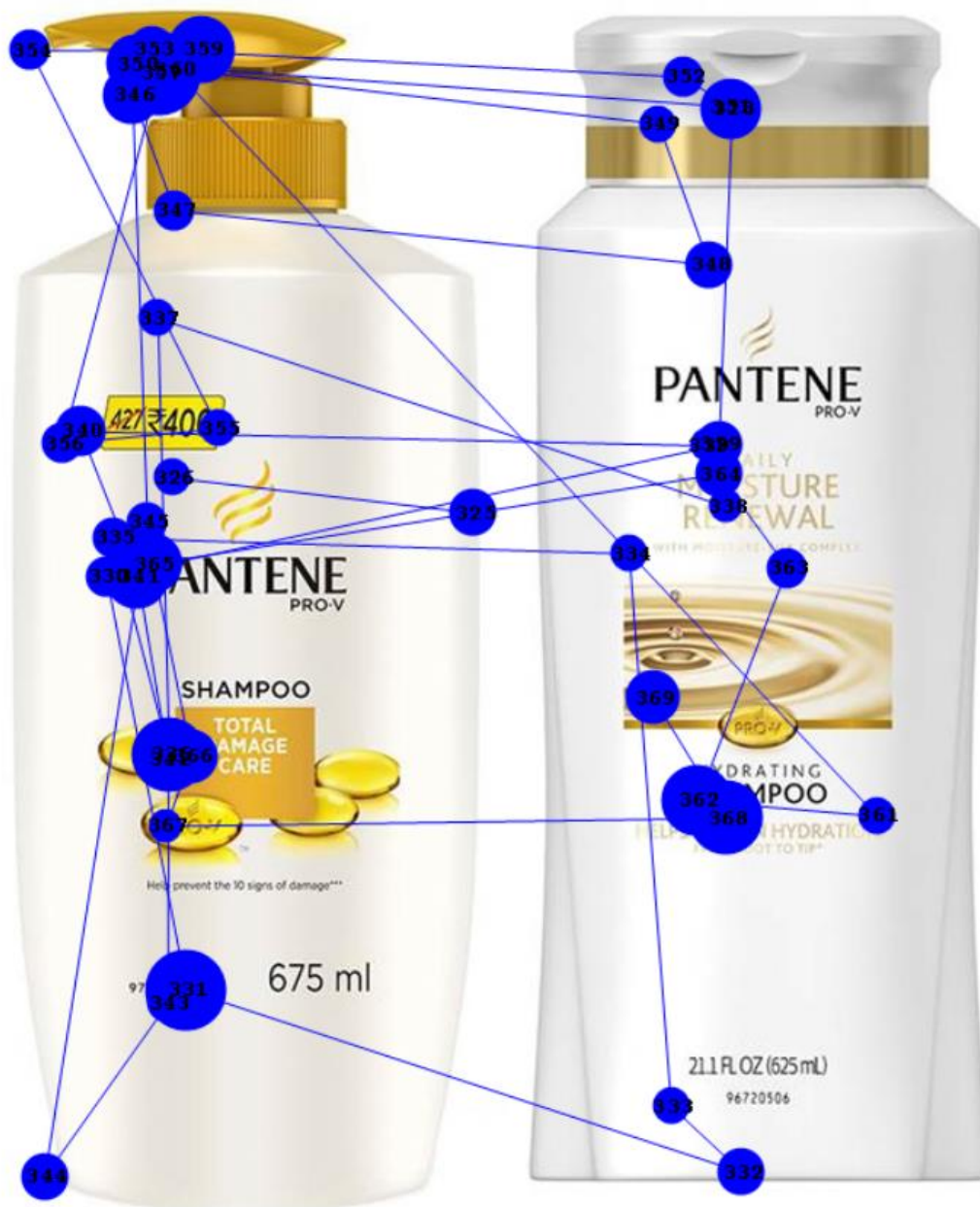


Figure A 4: Example of Gaze plot data received from eye movement recorder based studies (when two package graphics were shown together).



Figure A 5: Example of hotspot data received from eye movement recorder based studies (when package graphics were shown one at a time).



Figure A 6: Example of hotspot data received from eye movement recorder based studies (when three package graphics were shown together).



Figure A 7: Example of hotspot data received from eye movement recorder based studies (when package graphics were shown individually).



Figure A 8: User 1: Additional Gaze plot data received from eye movement recorder based studies (when package graphics were shown one after another).



Figure A 9: User 1: Additional Hotspot data received from eye movement recorder based studies (when all eight package graphics were shown together).



Figure A 10: User 2: Additional Gaze plot data received from eye movement recorder based studies (when package graphics were shown one after another).



Figure A 11: User 2: Additional Hotspot data received from eye movement recorder based studies (when all eight package graphics were shown together).



Figure A 12: User 3: Additional Gaze plot data received from eye movement recorder based studies (when package graphics were shown one after another).

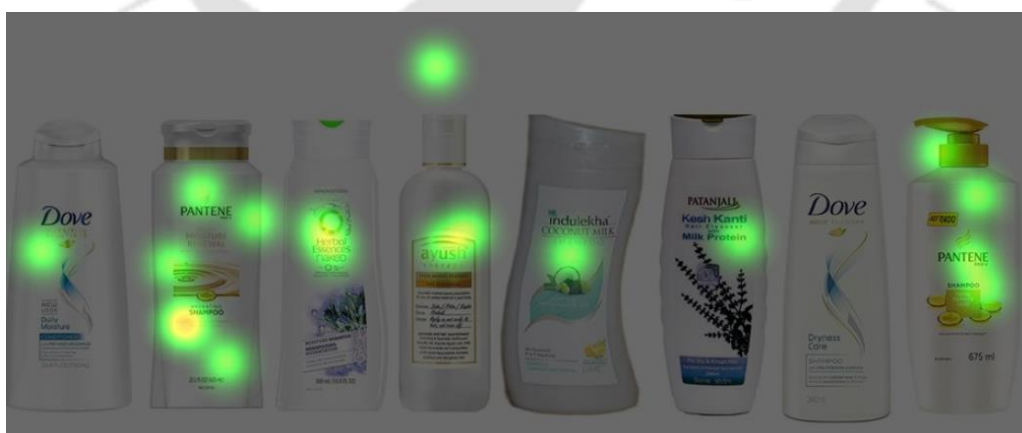


Figure A 13: User 3: Additional Hotspot data received from eye movement recorder based studies (when all eight package graphics were shown together).



Figure A 14: User 4: Additional Gaze plot data received from eye movement recorder based studies (when package graphics were shown one after another).



Figure A 15: User 4: Additional Hotspot data received from eye movement recorder based studies (when all eight package graphics were shown together).



Figure A 16: User 5: Additional Gaze plot data received from eye movement recorder based studies (when package graphics were shown one after another).



Figure A 17: User 5: Additional Hotspot data received from eye movement recorder based studies (when all eight package graphics were shown together).



Figure A 18: User 6: Additional Gaze plot data received from eye movement recorder based studies (when package graphics were shown one after another).



Figure A 19: User 6: Additional Hotspot data received from eye movement recorder based studies (when all eight package graphics were shown together).



Figure A 20: User 7: Additional Gaze plot data received from eye movement recorder based studies (when package graphics were shown one after another).

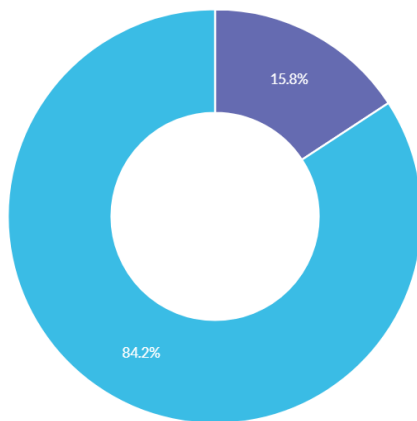


Figure A 21: User 7: Additional Hotspot data received from eye movement recorder based studies (when all eight package graphics were shown together).

Appendix 2

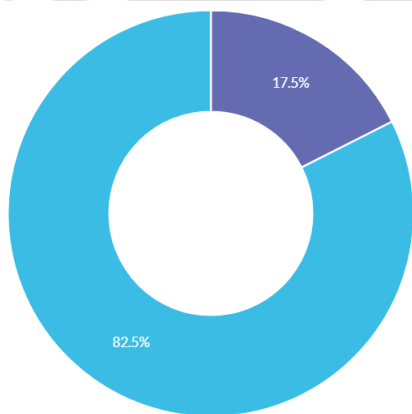
Questionnaire Used for Cross-Category Applicability of Package Graphic Design Strategies (Experiment 3, Chapter 3)

Q1 - Comparing the two, which image is relative 'BEAUTIFUL.'



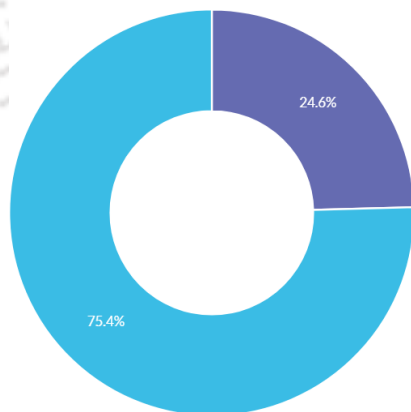
Choice	Total
● Left	9
● Right	48

Q2 - Comparing the two, which image is relative 'PREMIUM.'



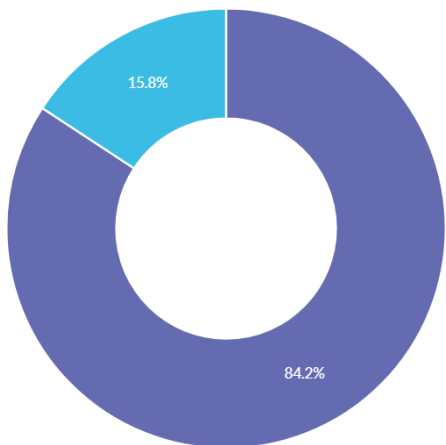
Choice	Total
Left	10
Right	47

Q3 - Comparing the two, which image is relative 'INNOVATIVE.'



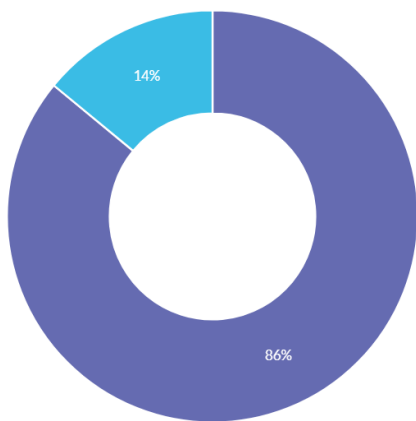
Choice	Total
Left	14
Right	43

Q4 - Comparing the two, which image is relative 'BAD.'



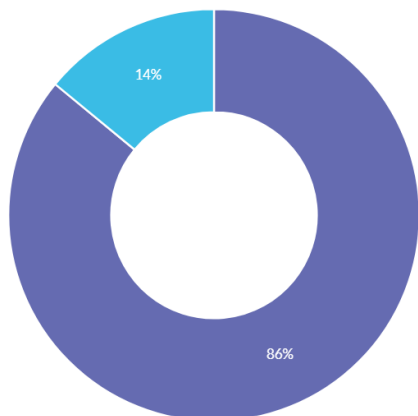
Choice	Total
● Left	48
● Right	9

Q5 - Comparing the two, which image is relative 'BORING.'



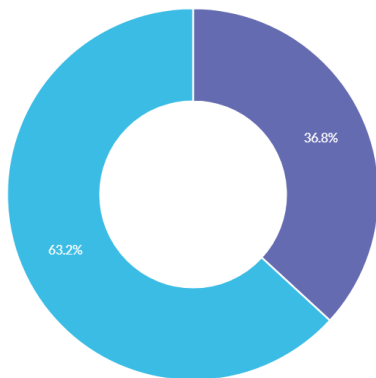
Choice	Total
● Left	49
● Right	8

Q6 - Comparing the two, which image is relatively 'UGLY.'



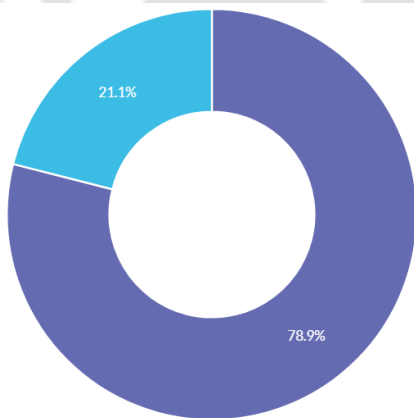
Choice	Total
Left	49
Right	8

Q7 - Comparing the two, which image giving impression relatively 'TRUSTED.'



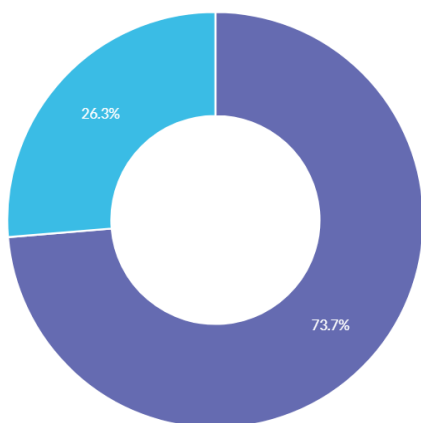
Choice	Total
Left	21
Right	36

Q8 - Comparing the two, which image you would relative 'HATE.'



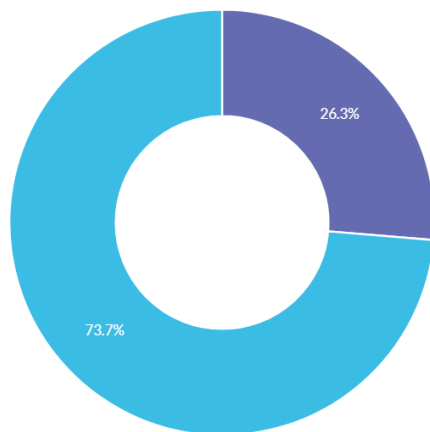
Choice	Total
● Left	45
● Right	12

Q9 - Comparing the two, which image is relative 'ORDINARY.'



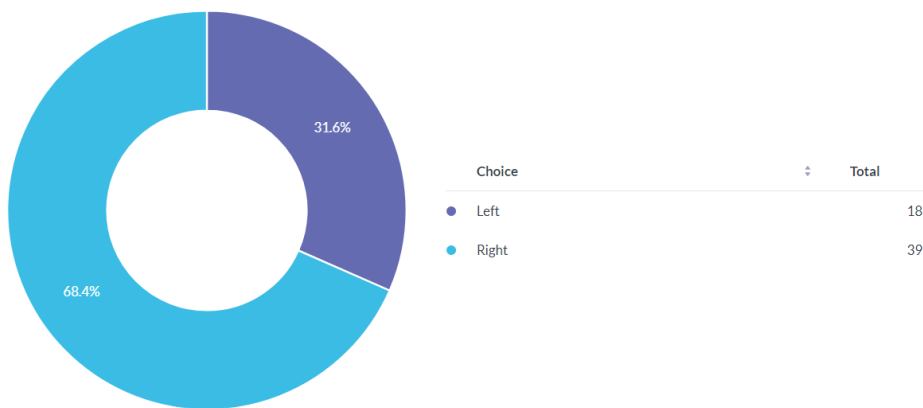
Choice	Total
● left	42
● right	15

Q10 - Comparing the two, which image is relative 'BEAUTIFUL.'

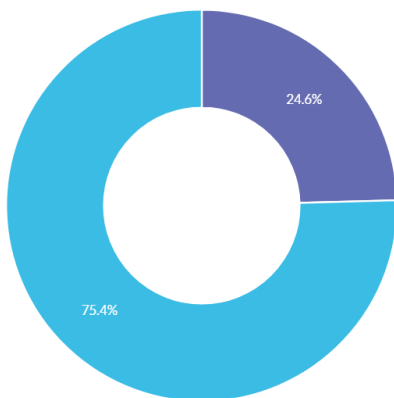


Choice	Total
Left	15
Right	42

Q11 - Comparing the two, which image is relative 'PREMIUM.'

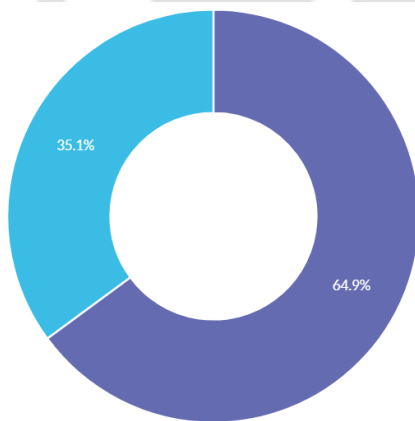


Q12 - Comparing the two, which image is relative 'INNOVATIVE.'



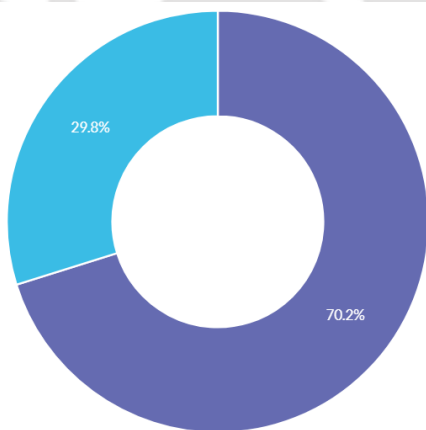
Choice	Total
Left	14
Right	43

Q13 - Comparing the two, which image is relative 'BAD.'



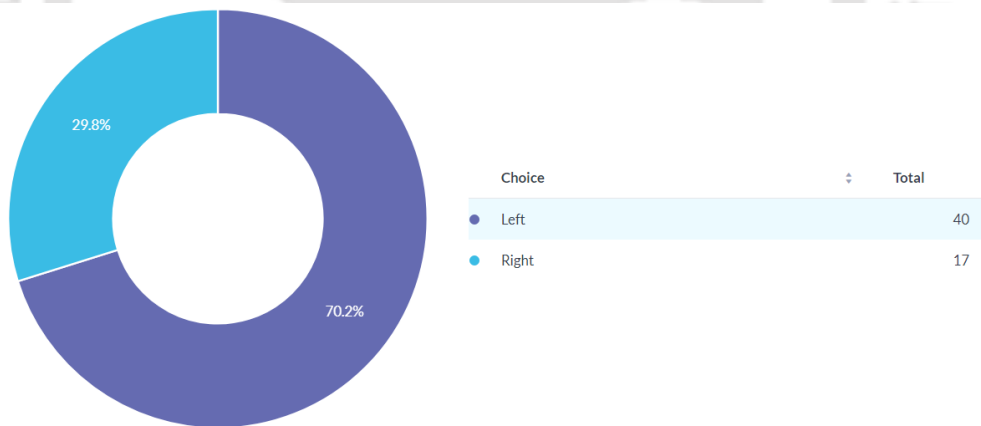
Choice	Total
● Left	37
● Right	20

Q14 - Comparing the two, which image is relative 'BORING.'

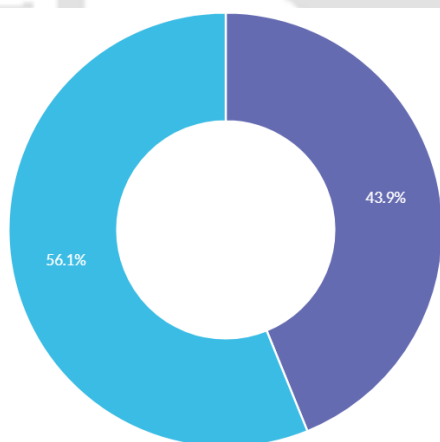


Choice	Total
● Left	40
● Right	17

Q15 - Comparing the two, which image is relatively 'UGLY.'

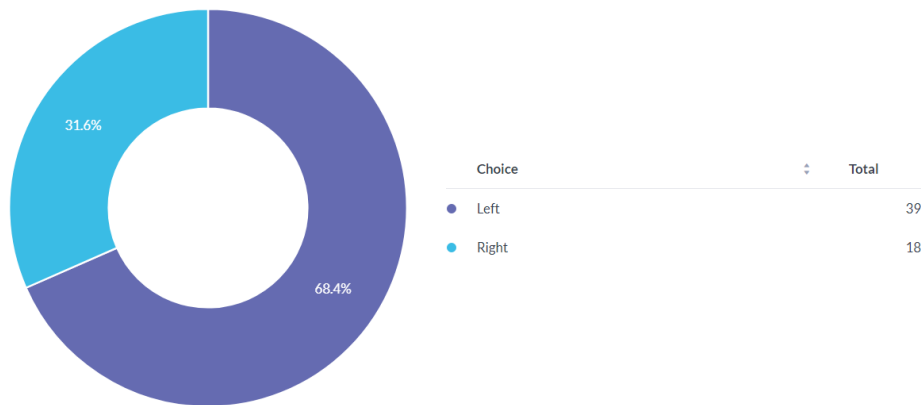


Q16 - Comparing the two, which image giving impression relatively 'TRUSTED.'

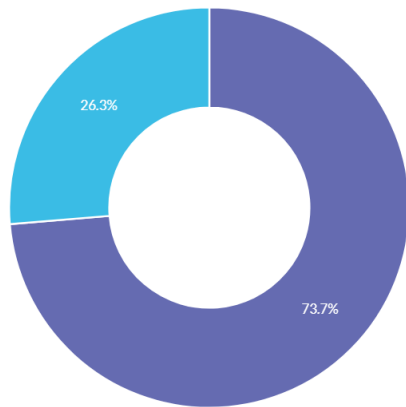


Choice	Total
Left	25
Right	32

Q17 - Comparing the two, which image you would relatively 'HATE'

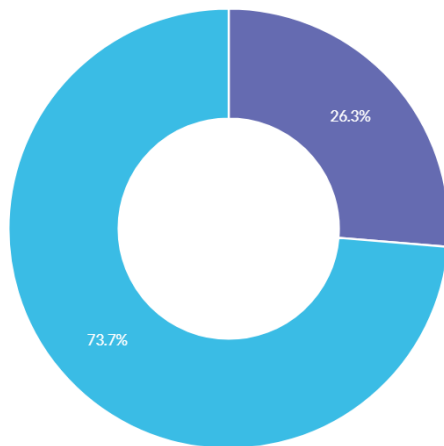


Q18 - Comparing the two, which image is relatively 'ORDINARY.'



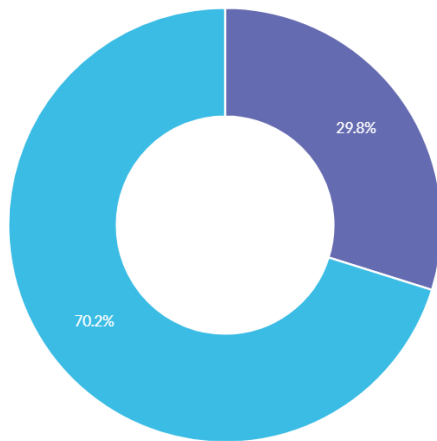
Choice	Total
● left	42
● right	15

Q19 - Comparing the two, which image is relative 'BEAUTIFUL.'



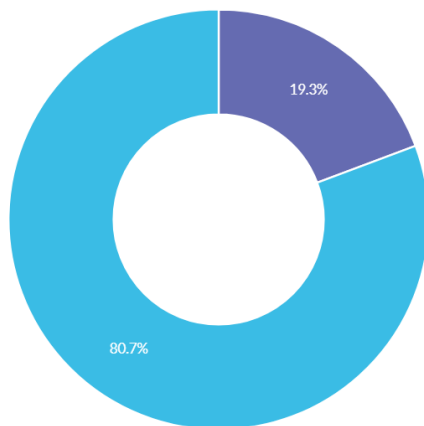
Choice	Total
● Left	15
● Right	42

Q20 - Comparing the two, which image is relative 'PREMIUM.'



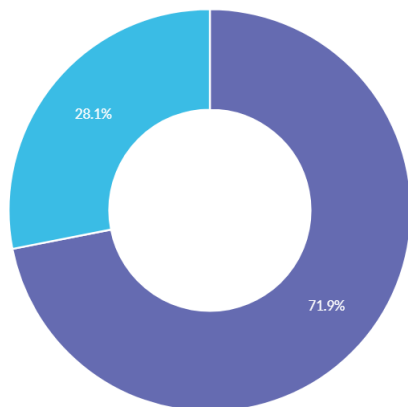
Choice	:	Total
● Left		17
● Right		40

Q21 - Comparing the two, which image is relative 'INNOVATIVE.'



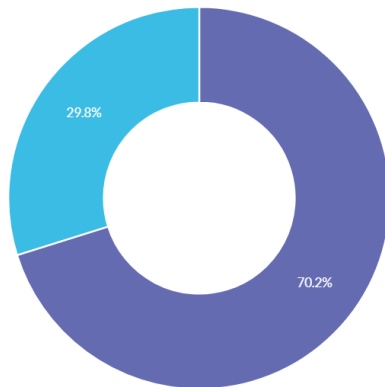
Choice	Total
Left	11
Right	46

Q22 - Comparing the two, which image is relative 'BAD.'



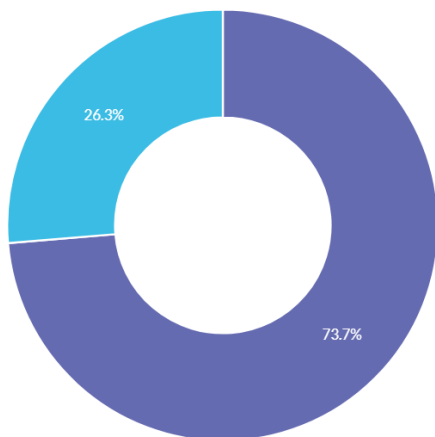
Choice	Total
● Left	41
● Right	16

Q23 - Comparing the two, which image is relative 'BORING.'



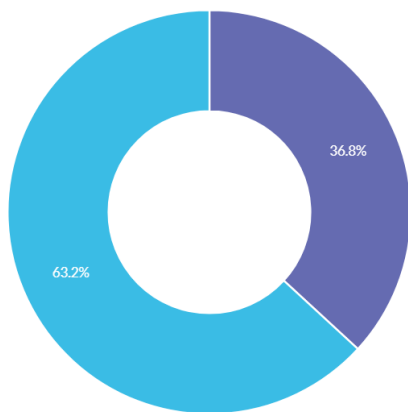
Choice	Total
● Left	40
● Right	17

Q24 - Comparing the two, which image is relatively 'UGLY.'



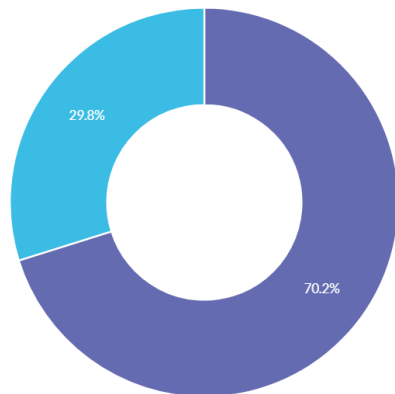
Choice	Total
Left	42
Right	15

Q25 - Comparing the two, which image giving impression relatively 'TRUSTED.'



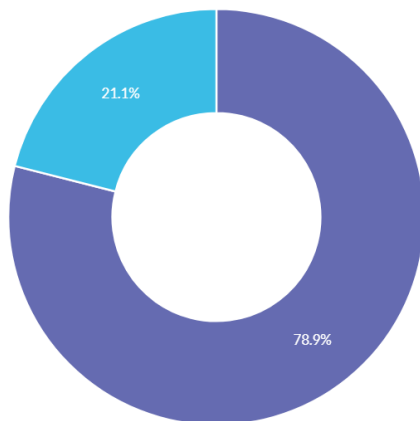
Choice	Total
Left	21
Right	36

Q26 - Comparing the two, which image you would relatively 'HATE.'



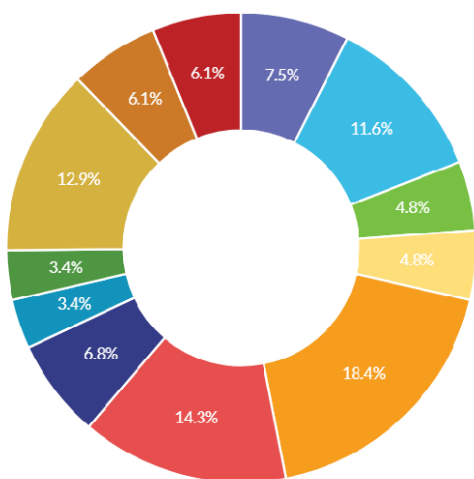
Choice	Total
● Left	40
● Right	17

Q27 - Comparing the two, which image is relatively 'ORDINARY.'



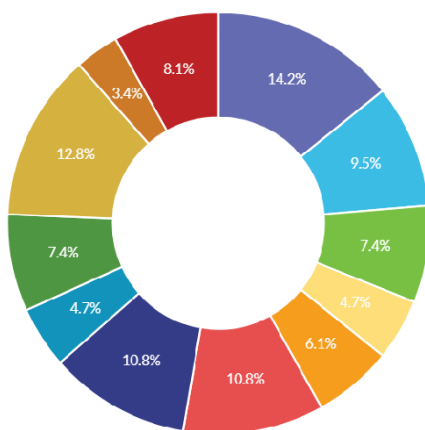
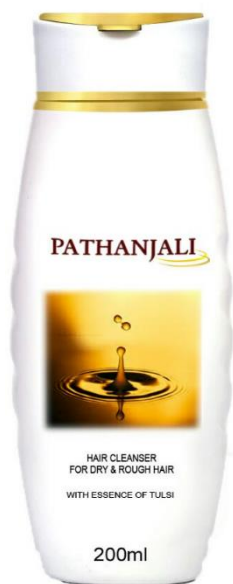
Choice	Total
left	45
right	12

Q28 Looking at the graphic design of the above visual (please only consider visual perception and do not consider factors like brand name, benefit, price, etc.), do you associate the design with any of the keywords on the right side? If Yes, what are they? (select as many as needed).



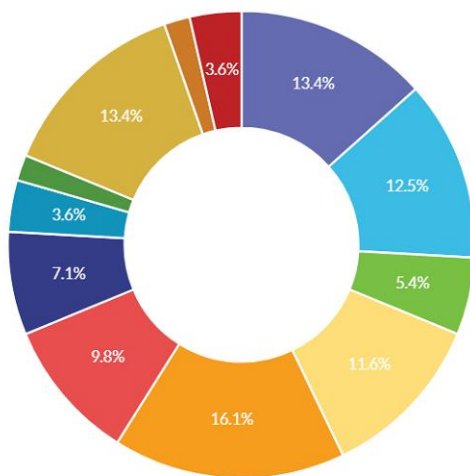
Choice	Total
<ul style="list-style-type: none"> Creator: This brand helps people to try new things in a creative way. 	11
<ul style="list-style-type: none"> Caregiver: brand is caring, compassionate, and generous for their customers and society in general. 	17
<ul style="list-style-type: none"> Ruler: This brand shows leadership and takes its responsibility. 	7
<ul style="list-style-type: none"> Jester: This brand entertains people in a clownish and funny way. 	7
<ul style="list-style-type: none"> Regular Guy: This brand is accessible for everyone, because it represents the normal guy or woman. 	27
<ul style="list-style-type: none"> Lover: This brand has a loving relationship with its environment. 	21
<ul style="list-style-type: none"> Hero: This brand gives customers courage, power, and self-esteem. 	10
<ul style="list-style-type: none"> Outlaw: This rebellious brand changes existing situations and is not led by the usual social conventions. 	5
<ul style="list-style-type: none"> Magician: This brand helps people to create changes in their lives. 	5
<ul style="list-style-type: none"> Innocent: This brand gives people a happy and positive approach to life. 	19
<ul style="list-style-type: none"> Explorer: This brand helps people to achieve freedom and independence. 	9
<ul style="list-style-type: none"> Sage: This brand uses intelligence and analysis to understand the world and to develop themselves 	9

Q29 Looking at the graphic design of the above visual (please only consider visual perception and do not consider factors like brand name, benefit, price, etc.), do you associate the design with any of the keywords on the right side? If Yes, what are they? (select as many as needed).



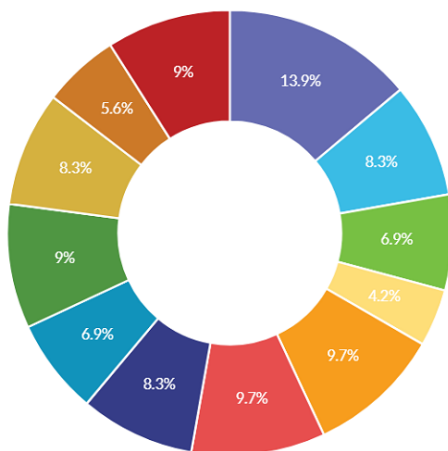
Choice	Total
<ul style="list-style-type: none"> Creator: This brand helps people to try new things in a creative way. 	21
<ul style="list-style-type: none"> Caregiver: brand is caring, compassionate, and generous for their customers and society in general. 	14
<ul style="list-style-type: none"> Ruler: This brand shows leadership and takes its responsibility. 	11
<ul style="list-style-type: none"> Jester: This brand entertains people in a clownish and funny way. 	7
<ul style="list-style-type: none"> Regular Guy: This brand is accessible for everyone, because it represents the normal guy or woman. 	9
<ul style="list-style-type: none"> Lover: This brand has a loving relationship with its environment. 	16
<ul style="list-style-type: none"> Hero: This brand gives customers courage, power, and self-esteem. 	16
<ul style="list-style-type: none"> Outlaw: This rebellious brand changes existing situations and is not led by the usual social conventions. 	7
<ul style="list-style-type: none"> Magician: This brand helps people to create changes in their lives. 	11
<ul style="list-style-type: none"> Innocent: This brand gives people a happy and positive approach to life. 	19
<ul style="list-style-type: none"> Explorer: This brand helps people to achieve freedom and independence. 	5
<ul style="list-style-type: none"> Sage: This brand uses intelligence and analysis to understand the world and to develop themselves 	12

Q30 Looking at the graphic design of the above visual (please only consider visual perception and do not consider factors like brand name, benefit, price, etc.), do you associate the design with any of the keywords on the right side? If Yes, what are they? (select as many as needed).



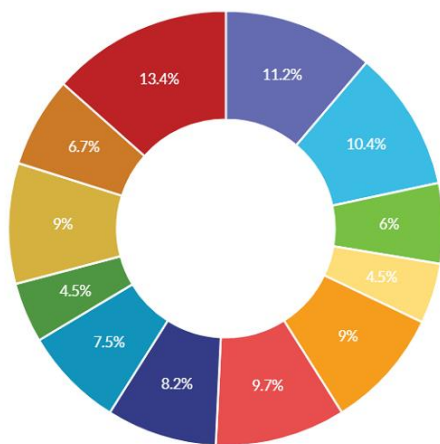
Choice	Total
Creator: This brand helps people to try new things in a creative way.	15
Caregiver: brand is caring, compassionate, and generous for their customers and society in general.	14
Ruler: This brand shows leadership and takes its responsibility.	6
Jester: This brand entertains people in a clownish and funny way.	13
Regular Guy: This brand is accessible for everyone, because it represents the normal guy or woman.	18
Lover: This brand has a loving relationship with its environment.	11
Hero: This brand gives customers courage, power, and self-esteem.	8
Outlaw: This rebellious brand changes existing situations and is not led by the usual social conventions.	4
Magician: This brand helps people to create changes in their lives.	2
Innocent: This brand gives people a happy and positive approach to life.	15
Explorer: This brand helps people to achieve freedom and independence.	2
Sage: This brand uses intelligence and analysis to understand the world and to develop themselves	4

Q31 Looking at the graphic design of the above visual (please only consider visual perception and do not consider factors like brand name, benefit, price, etc.), do you associate the design with any of the keywords on the right side? If Yes, what are they? (select as many as needed).



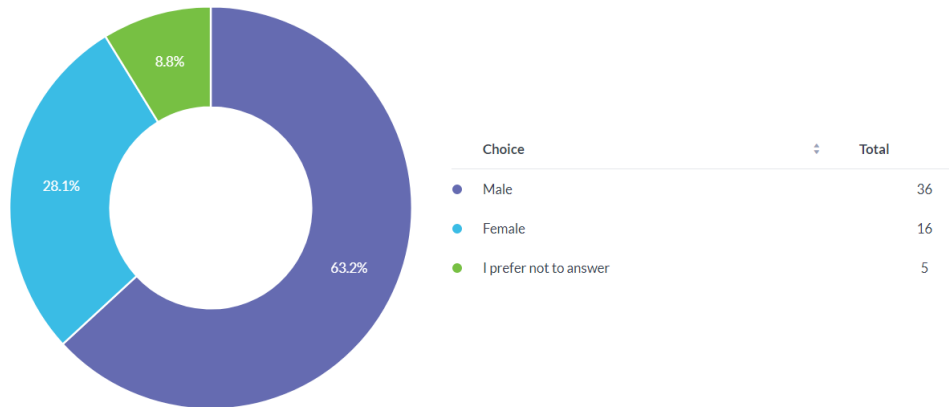
Choice	Total
● Creator: This brand helps people to try new things in a creative way.	20
● Caregiver: brand is caring, compassionate, and generous for their customers and society in general.	12
● Ruler: This brand shows leadership and takes its responsibility.	10
● Jester: This brand entertains people in a clownish and funny way.	6
● Regular Guy: This brand is accessible for everyone, because it represents the normal guy or woman.	14
● Lover: This brand has a loving relationship with its environment.	14
● Hero: This brand gives customers courage, power, and self-esteem.	12
● Outlaw: This rebellious brand changes existing situations and is not led by the usual social conventions.	10
● Magician: This brand helps people to create changes in their lives.	13
● Innocent: This brand gives people a happy and positive approach to life.	12
● Explorer: This brand helps people to achieve freedom and independence.	8
● Sage: This brand uses intelligence and analysis to understand the world and to develop themselves	13

Q32 Looking at the graphic design of the above visual (please only consider visual perception and do not consider factors like brand name, benefit, price, etc.), do you associate the design with any of the keywords on the right side? If Yes, what are they? (select as many as needed).

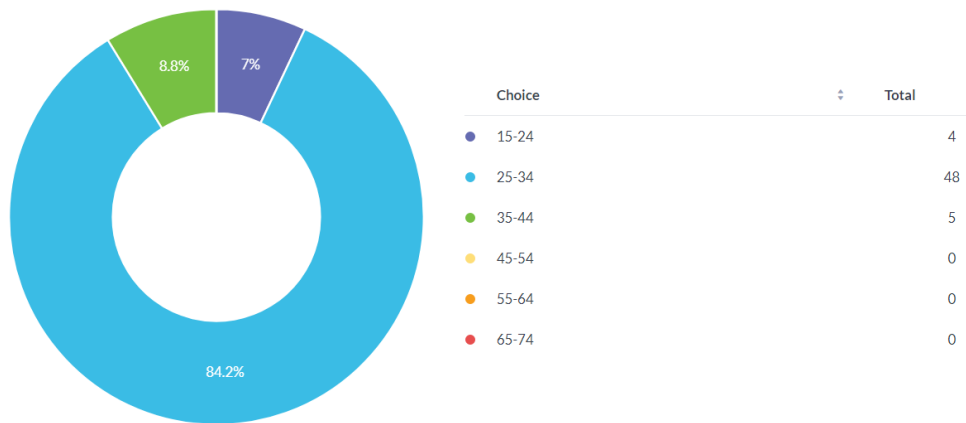


Choice	Total
● Creator: This brand helps people to try new things in a creative way.	15
● Caregiver: brand is caring, compassionate, and generous for their customers and society in general.	14
● Ruler: This brand shows leadership and takes its responsibility.	8
● Jester: This brand entertains people in a clownish and funny way.	6
● Regular Guy: This brand is accessible for everyone, because it represents the normal guy or woman.	12
● Lover: This brand has a loving relationship with its environment.	13
● Hero: This brand gives customers courage, power, and self-esteem.	11
● Outlaw: This rebellious brand changes existing situations and is not led by the usual social conventions.	10
● Magician: This brand helps people to create changes in their lives.	6
● Innocent: This brand gives people a happy and positive approach to life.	12
● Explorer: This brand helps people to achieve freedom and independence.	9
● Sage: This brand uses intelligence and analysis to understand the world and to develop themselves	18

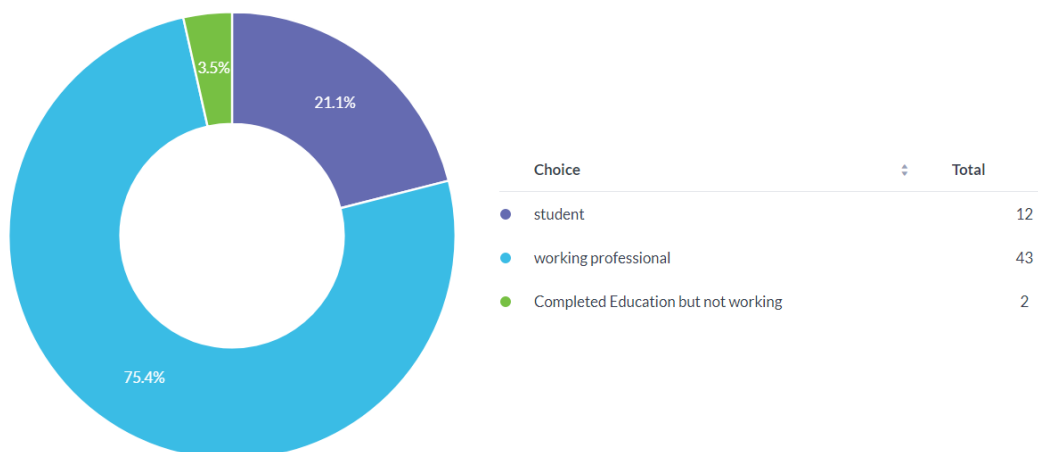
Q33 - Please select your Gender.



Q34 - What is your age group?



Q35 - You are currently a

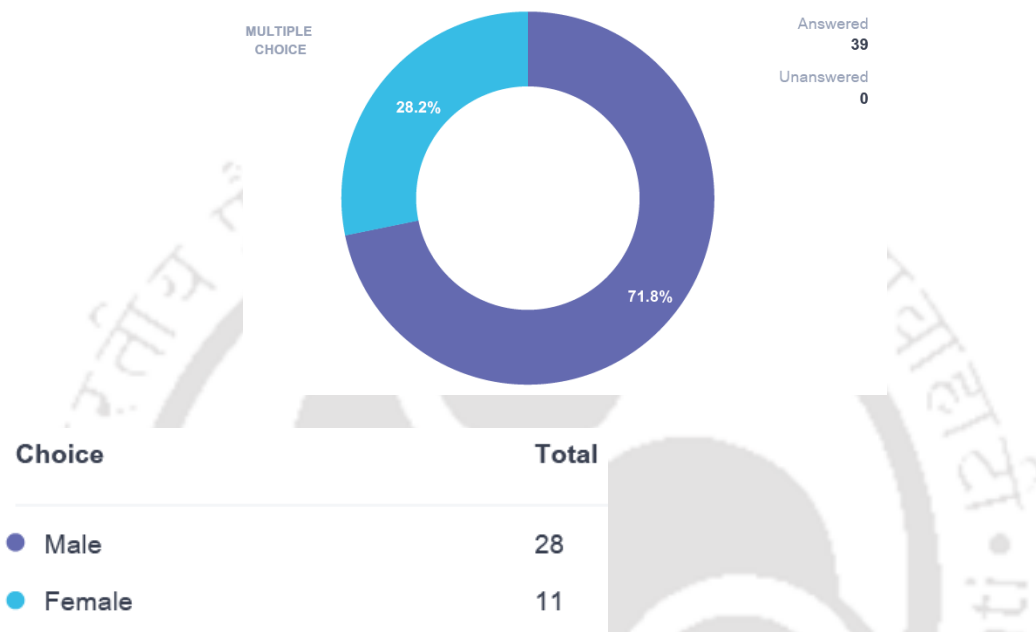


Q36 - Please write down which state (of India) you belong to.

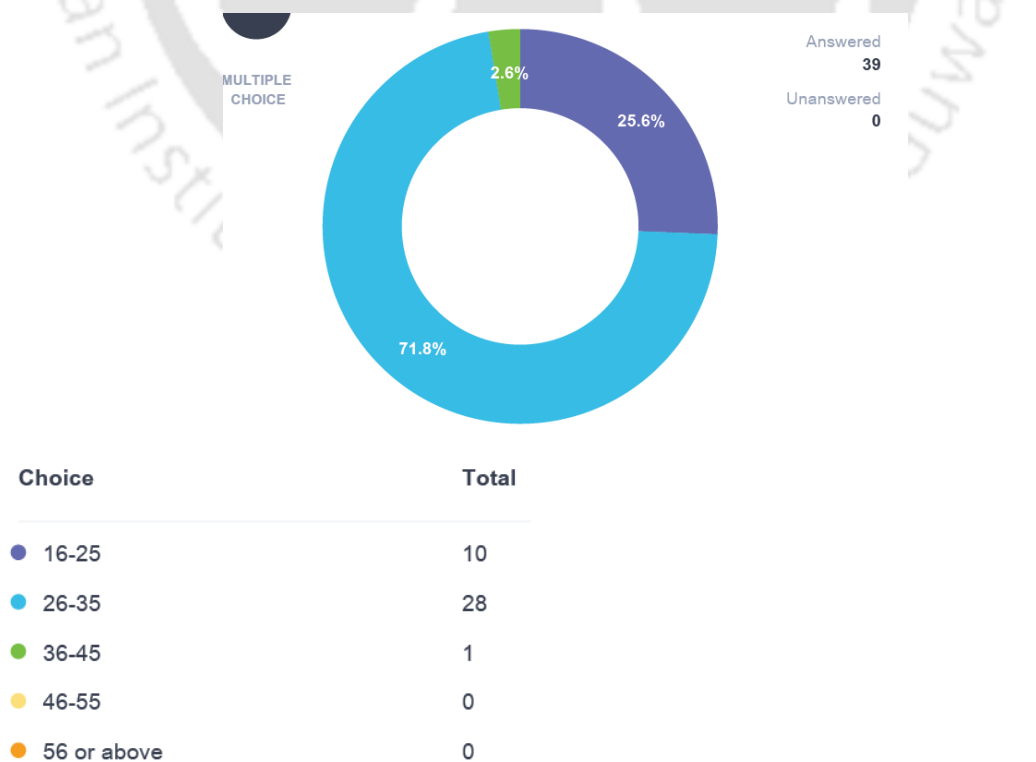
Appendix 3

Questionnaire Used for Cross-Category Applicability of Package Graphic Design Strategies (Experiment 3, Chapter 3)

Q1 - To help us ask the right questions, please select your gender.

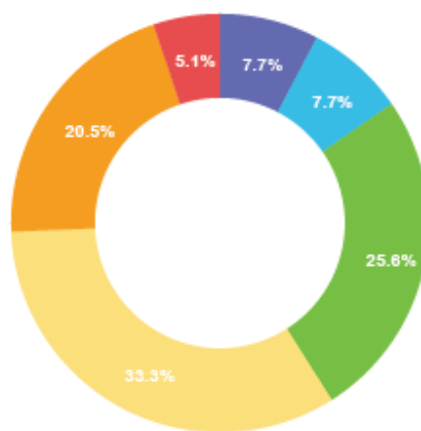


Q2 - Please select your age group.



Q3 - As we are expecting consumers from several countries to join this survey, can you please type your nationality below?

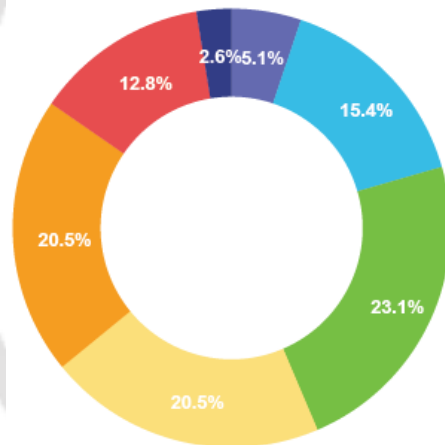
Q4 - On a scale of 1 to 7, how would you rate the below Chocolate Package for Beauty of the package? Rate 7 if you think this is extremely beautiful. Rate 1 if it is not at all beautiful .



Answered **39**
Unanswered **0**

Choice	Total
1-1 (Not at all Beautiful)	3
2-2	3
3-3	10
4-4	13
5-5	8
6-6	2
7-7 Extremely Beautiful	0

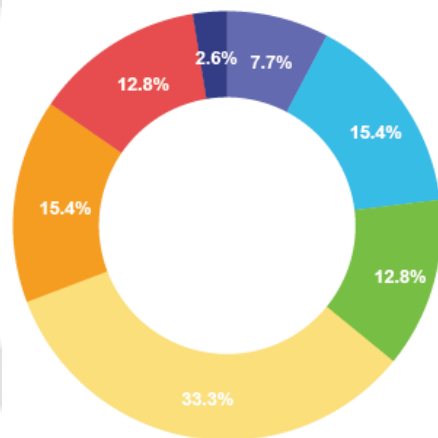
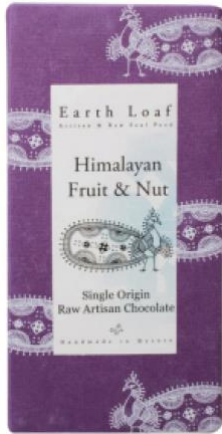
Q5 - On a scale of 1 to 7, how would you rate the below Chocolate Package for premiumness Beauty of the package? Rate 7 if you think this is exceptionally premium. Rate 1 if it is not at all premium.



Answered
39
Unanswered
0

Choice	Total
1-1 (Not at all Premium)	2
2-2	6
3-3	9
4-4	8
5-5	8
6-6	5
7-7 (Extremely Premium)	1

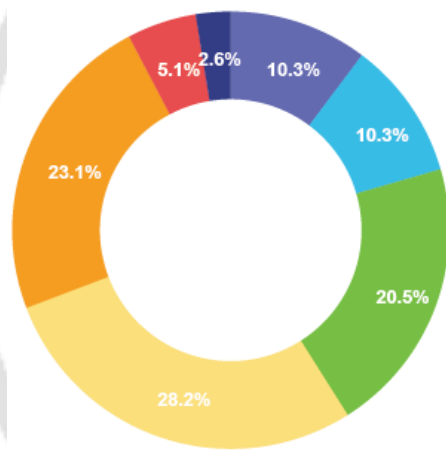
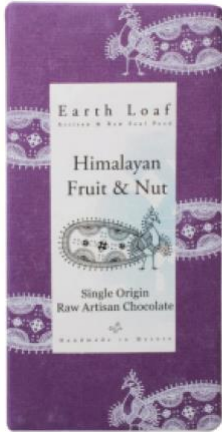
Q6 - On a scale of 1 to 7, how would you rate the below Chocolate Package for Innovation? Rate 7 if you think this is exceptionally Innovative. Rate 1 if it is not at all Innovative.



Answered
39
Unanswered
0

Choice	Total
1-1 (Not at all Innovative)	3
2-2	6
3-3	5
4-4	13
5-5	6
6-6	5
7-7 (Extremely Innovative)	1

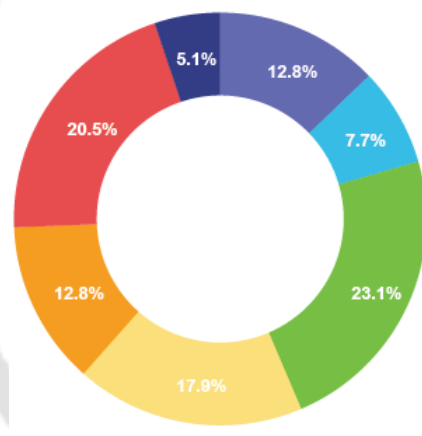
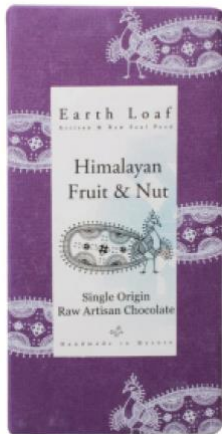
Q7 - On a scale of 1 to 7, how would you rate the below Chocolate Package for Trust? Rate 7 if you think this can be extremely trusted. Rate 1 if it cannot be trusted.



Answered
39
Unanswered
0

Choice	Total
1-1 (Cannot be Trusted at all)	4
2-2	4
3-3	8
4-4	11
5-5	9
6-6	2
7-7 (Extremely Trusted)	1

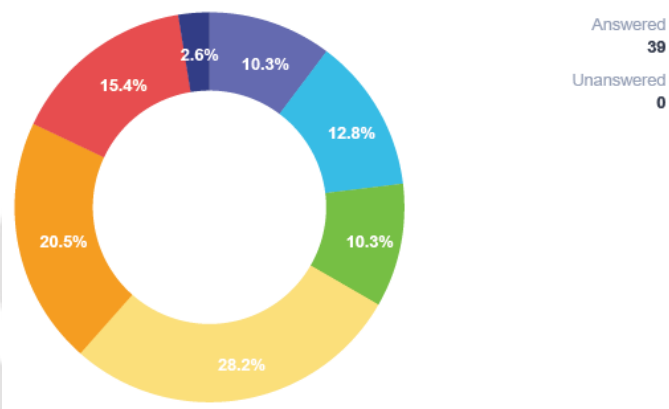
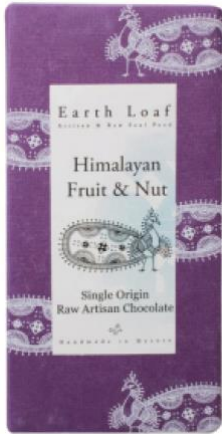
Q8 - Based on the package visual, on a scale of 1 to 7, how much would you agree to the below statement? This brand is accessible to everyone because it represents a regular guy or woman. Rate 7 if you strongly Agree, Rate 1 if you strongly disagree.



Answered
39
Unanswered
0

Choice	Total
1-1 (Strongly Disagree)	5
2-2	3
3-3	9
4-4	7
5-5	5
6-6	8
7-7 (Strongly Agree)	2

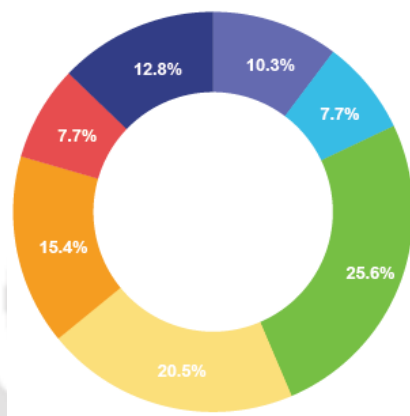
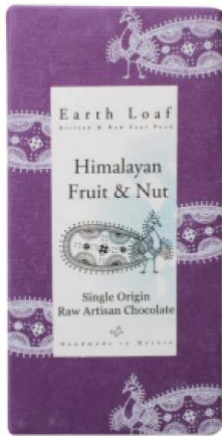
Q9 - Based on the package visual, on a scale of 1 to 7, how much would you agree to the below statement? This brand helps people to try new things in a creative way. Rate 7 if you strongly Agree, Rate 1 if you strongly disagree.



Answered
39
Unanswered
0

Choice	Total
1-1 (Strongly Disagree)	4
2-2	5
3-3	4
4-4	11
5-5	8
6-6	6
7-7 (Strongly Agree)	1

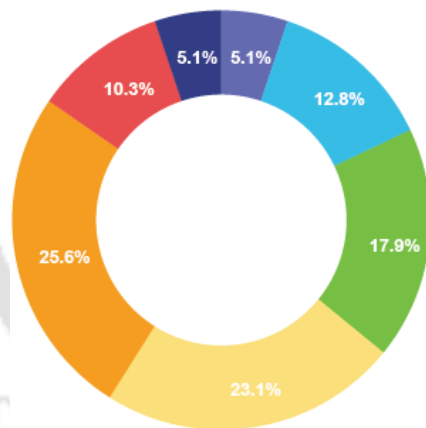
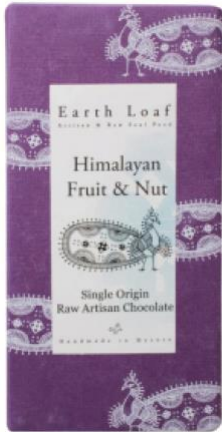
Q10 - Based on the package visual, on a scale of 1 to 7, how much would you agree to the below statement? This brand gives people a happy and positive approach to life. Rate 7 if you strongly Agree, Rate 1 if you strongly disagree.



Answered
39
Unanswered
0

Choice	Total
1-1 (Strongly Disagree)	4
2-2	3
3-3	10
4-4	8
5-5	6
6-6	3
7-7 (Strongly Agree)	5

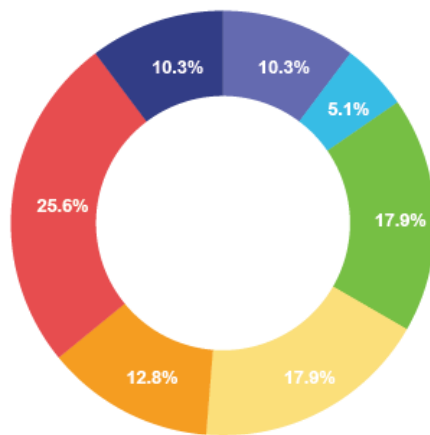
Q11 - Based on the package visual, on a scale of 1 to 7, how much would you agree to the below statement? This brand is caring, compassionate, and generous for its customers and society in general. Rate 7 if you strongly Agree, Rate 1 if you strongly disagree.



Answered
39
Unanswered
0

Choice	Total
1-1 (Strongly Disagree)	2
2-2	5
3-3	7
4-4	9
5-5	10
6-6	4
7-7 (Strongly Agree)	2

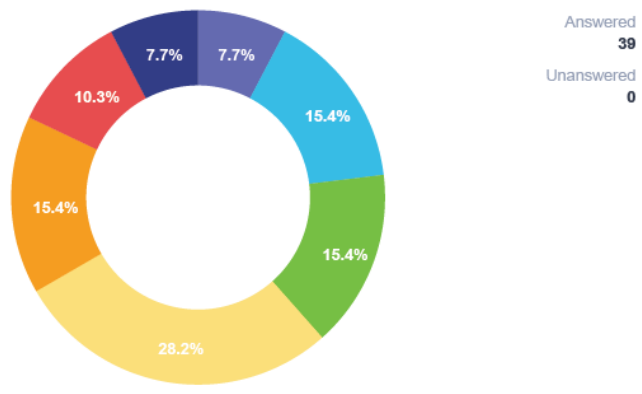
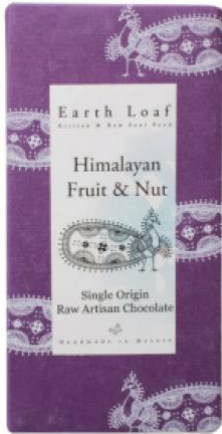
Q12 - Based on the package visual, on a scale of 1 to 7, how much would you agree to the below statement? This brand has a loving relationship with its environment. Rate 7 if you strongly Agree, Rate 1 if you strongly disagree.



Answered
39
Unanswered
0

Choice	Total
1-1 (Strongly Disagree)	4
2-2	2
3-3	7
4-4	7
5-5	5
6-6	10
7-7 (Strongly Agree)	4

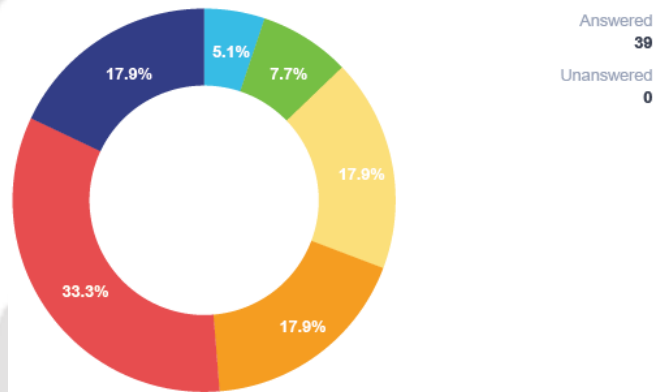
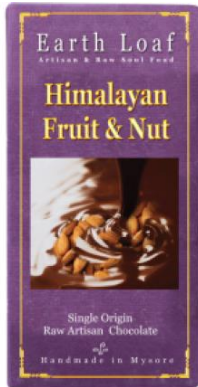
Q13 - Based on the package visual, on a scale of 1 to 7, how much would you agree to the below statement? The brand gives customers courage, power, and self-esteem. Rate 7 if you strongly Agree, Rate 1 if you strongly disagree.



Answered
39
Unanswered
0

Choice	Total
1-1 (Strongly Disagree)	3
2-2	6
3-3	6
4-4	11
5-5	6
6-6	4
7-7 (Strongly Agree)	3

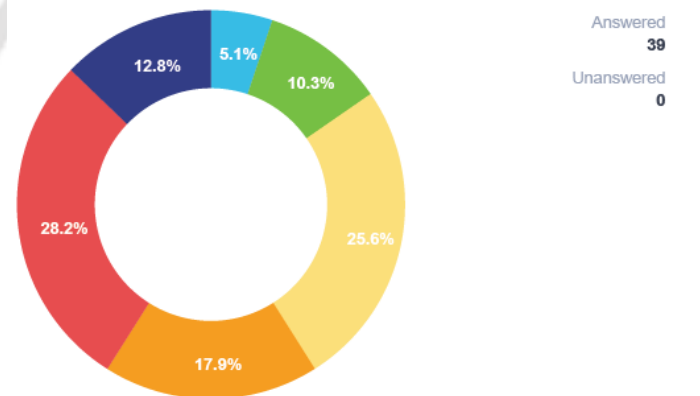
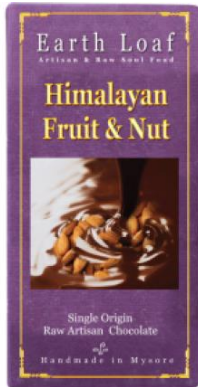
Q 14 - On a scale of 1 to 7, how would you rate the below Chocolate Package for Beauty of the package? Rate 7 if you think this is extremely beautiful. Rate 1 if it is not at all beautiful.



Answered
39
Unanswered
0

Choice	Total
1-1 (Not at all Beautiful)	0
2-2	2
3-3	3
4-4	7
5-5	7
6-6	13
7-7 Extremely Beautiful	7

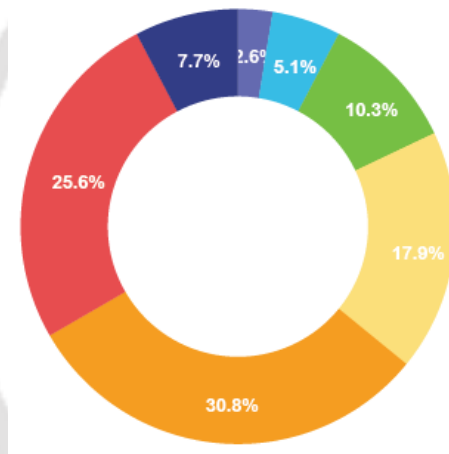
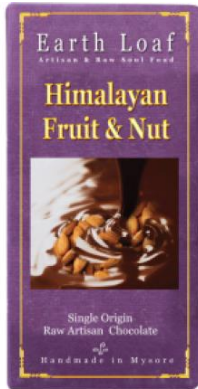
Q 15 - On a scale of 1 to 7, how would you rate the below Chocolate Package for premiumness Beauty of the package? Rate 7 if you think this is exceptionally premium. Rate 1 if it is not at all premium.



Answered
39
Unanswered
0

Choice	Total
● 1-1 (Not at all Premium)	0
● 2-2	2
● 3-3	4
● 4-4	10
● 5-5	7
● 6-6	11
● 7-7 (Extremely Premium)	5

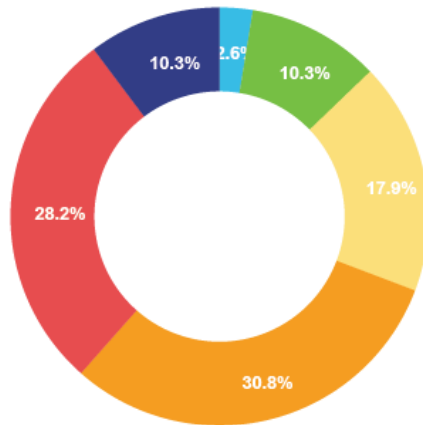
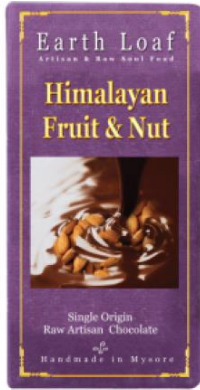
Q 16 - On a scale of 1 to 7, how would you rate the below Chocolate Package for Innovation? Rate 7 if you think this is exceptionally Innovative. Rate 1 if it is not at all Innovative.



Answered
39
Unanswered
0

Choice	Total
1-1 (Not at all Innovative)	1
2-2	2
3-3	4
4-4	7
5-5	12
6-6	10
7-7 (Extremely Innovative)	3

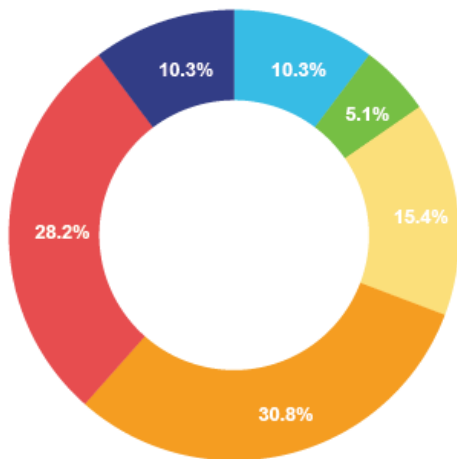
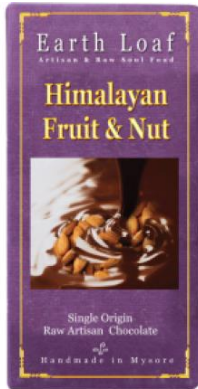
Q 17 - On a scale of 1 to 7, how would you rate the below Chocolate Package for Trust?
 Rate 7 if you think this can be extremely trusted. Rate 1 if it cannot be trusted.



Answered
39
 Unanswered
0

Choice	Total
1-1 (Cannot be Trusted at all)	0
2-2	1
3-3	4
4-4	7
5-5	12
6-6	11
7-7 (Extremely Trusted)	4

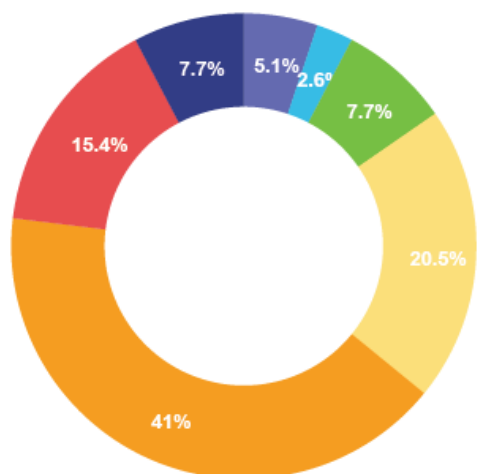
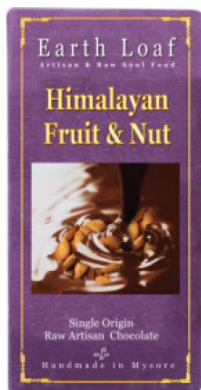
Q 18 - Based on the package visual, on a scale of 1 to 7, how much would you agree to the below statement? This brand is accessible to everyone because it represents a regular guy or woman. Rate 7 if you strongly Agree, Rate 1 if you strongly disagree.



Answered
39
Unanswered
0

Choice	Total
1-1 (Strongly Disagree)	0
2-2	4
3-3	2
4-4	6
5-5	12
6-6	11
7-7 (Strongly Agree)	4

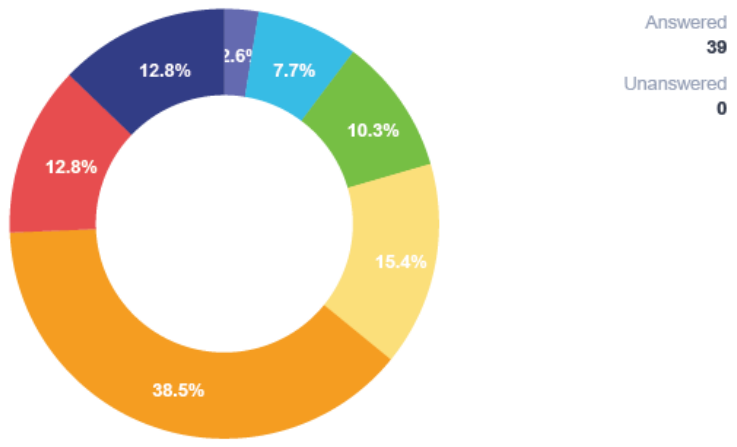
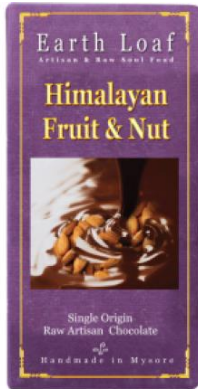
Q 19 - Based on the package visual, on a scale of 1 to 7, how much would you agree to the below statement? This brand helps people to try new things in a creative way. Rate 7 if you strongly Agree, Rate 1 if you strongly disagree.



Answered
39
Unanswered
0

Choice	Total
1-1 (Strongly Disagree)	2
2-2	1
3-3	3
4-4	8
5-5	16
6-6	6
7-7 (Strongly Agree)	3

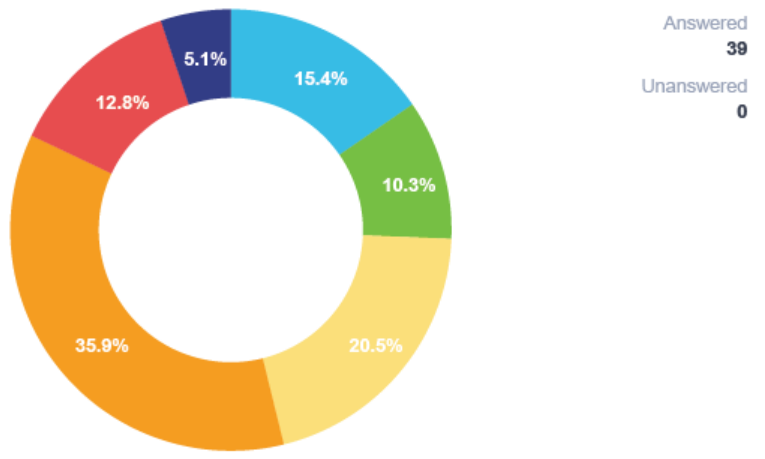
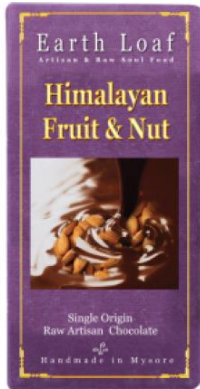
Q 20 - Based on the package visual, on a scale of 1 to 7, how much would you agree to the below statement? This brand gives people a happy and positive approach to life. Rate 7 if you strongly Agree, Rate 1 if you strongly disagree.



Answered
39
Unanswered
0

Choice	Total
1-1 (Strongly Disagree)	1
2-2	3
3-3	4
4-4	6
5-5	15
6-6	5
7-7 (Strongly Agree)	5

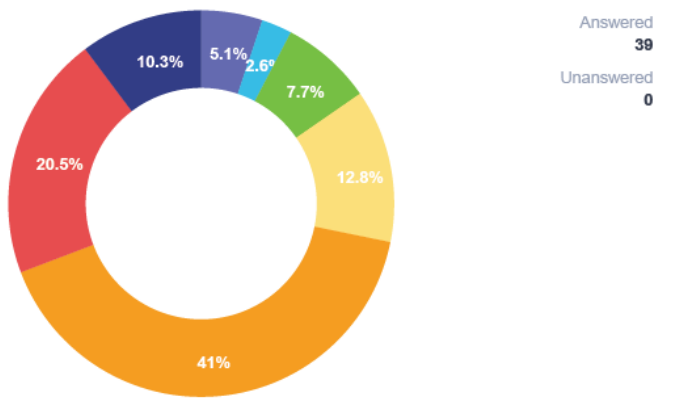
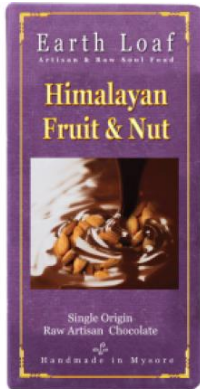
Q 21 - Based on the package visual, on a scale of 1 to 7, how much would you agree to the below statement? This brand is caring, compassionate, and generous for its customers and society in general. Rate 7 if you strongly Agree, Rate 1 if you strongly disagree.



Answered
39
Unanswered
0

Choice	Total
1-1 (Strongly Disagree)	0
2-2	6
3-3	4
4-4	8
5-5	14
6-6	5
7-7 (Strongly Agree)	2

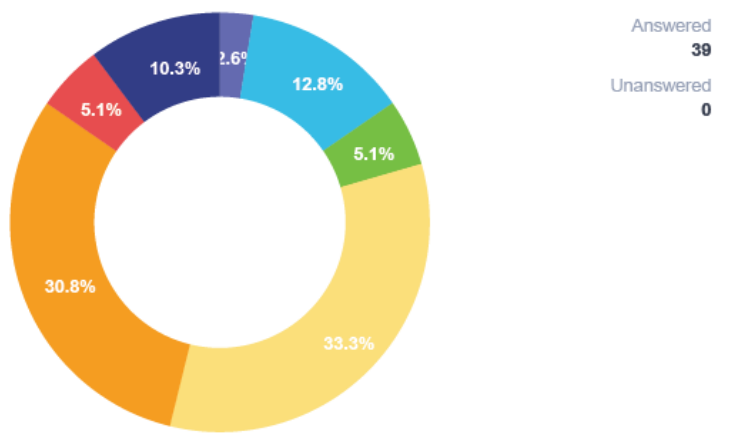
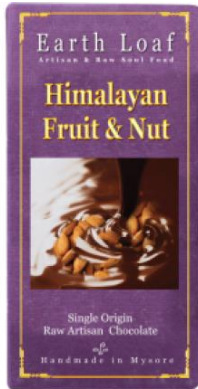
Q 22 - Based on the package visual, on a scale of 1 to 7, how much would you agree to the below statement? This brand has a loving relationship with its environment. Rate 7 if you strongly Agree, Rate 1 if you strongly disagree.



Answered
39
Unanswered
0

Choice	Total
1-1 (Strongly Disagree)	2
2-2	1
3-3	3
4-4	5
5-5	16
6-6	8
7-7 (Strongly Agree)	4

Q 23 - Based on the package visual, on a scale of 1 to 7, how much would you agree to the below statement? The brand gives customers courage, power, and self-esteem. Rate 7 if you strongly Agree, Rate 1 if you strongly disagree.

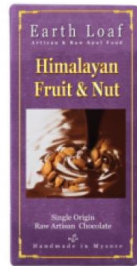


Choice	Total
1-1 (Strongly Disagree)	1
2-2	5
3-3	2
4-4	13
5-5	12
6-6	2
7-7 (Strongly Agree)	4

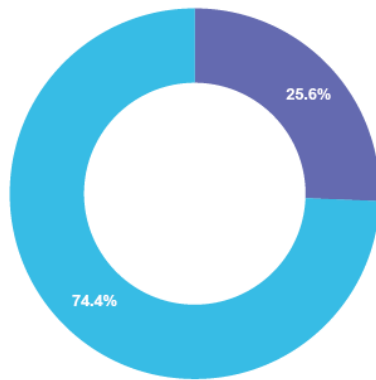
Q 24 Imagine you are in a shopping mall, doing usual shopping. Suddenly you got an interest to buy chocolate. If the shop only has two options, which one would you buy?



Option A
Rs: 50



Option B
Rs: 65



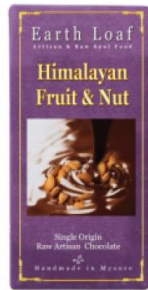
Answered
39
Unanswered
0

Choice	Total
● Option A (Rs: 50)	10
● Option B (Rs: 65)	29

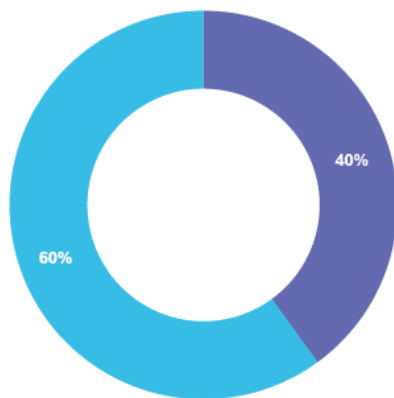
Q 25 Imagine you are in a shopping mall, doing usual shopping. Suddenly you got an interest to buy chocolate. If the shop only has two options, which one would you buy?



Option A
Rs: 50



Option B
Rs: 50



Answered
10
Unanswered
29

Choice	Total
● Option A (Rs: 50)	4
● Option B (Rs: 50)	6

Appendix 4

The questionnaire used for Qualitative User Studies (Experiment 1, Chapter 4)

Qualitative user studies were started with a warm-up and a brief introduction

Warm-up Questions:

- Could you please share with me how a typical day is like for you?
- How do you spend your time on a weekday & weekend?
- What are some of your favorite activities? *Moderator note: Please probe in detail on why these activities are the respondent's favorite activities*
 - Why do you like doing these things? How do you feel when you're doing them?
 - Who do you do these activities with?

Aspirations & Challenges

- [Aspiration] If a genie were to ask you for your top 3 wishes for the near future. What would you wish for and why?
 - [Health aspiration] Any expectation in the health area? (if not mentioned anything about health)
- [Challenges] Looking back, what are these 1 or 2 things which you are uncomfortable facing or dealing with your daily life?
 - [Health challenges] Any challenges do you think you will face in the next five years in the health area?

Health routines & Health-Related Source of Information

- [Method for Healthy] What do you do to stay healthy? (Can be sports, food, exercise, which products do they take – any vitamins or supplements?)

- [Method Used in Last Week] What did you do in the last week for your health? (be very specific)
- [Method for Family's Health] What do you do for the health of your family? (kids & husbands & grandparents)
- [Source of information for health] Source of information on the health-related area in general – probe
 - WOM: who? DR/ ISC/ expert/ friends
 - TV: which program?
 - Online: which website/ forum/ bloggers?
 - Magazine/ Newspaper: which one?
 - Doctor/ Hospital
 - In-store: what kind of information?
- [Role of VMS] What are the roles of supplements in your effort to stay healthy?
- [Current VMS regimen] Could you show us what supplements are you taking?

For each of the supplement:

- [Needs] What makes you aware of the needs of this VMS?
- [Benefits] What is the key benefit of the supplement?
- [Trial drivers] How long have you been taking this SKU? Recall: when it is the first time you tried this product? What triggered the trial?
 - ✓ [Trial barriers] Any other brand with a similar product? What makes you choose the current product?
- [Satisfaction] How is the current brand meeting your needs? (Give a rating) How do you judge it meets or needs or not?
 - ✓ [Improvement areas] What are the improvement areas, if any?
- [Drivers to switch] Loyalty level to the current brand – Do you want to switch to a different brand? – why yes & why not?

If the consumer is taking more than one supplements, ask:

- [Drivers of taking different brands] **If they have different brands:** Why choose different brands for different SKUs? What is the benefit of having different brands for different SKUs?
- [Drivers of taking the same brand] **If they are using the same brand:** Why choose the same brand for different SKUs? What is the benefit of using the same brand?
- [Unmet needs] Do you currently have products for all your needs? Anything missing? If you get a chance to ask your favorite brand CEO for a new product, what would it be? Why?

For all respondents:

- [Source of information for VMS] What is your information source for supplements other than mentioned above? What kind of information are you looking for in each information source?

Shopping Channels (15 mins/ 70 mins)

- [Information seeking] What kind of information do you read before you go shopping? Where do you get it?
- [Purchase channel] How do you purchase the supplements?

For e-commerce shopping:

- Could you demo and describe? Show catalog/ e-commerce/ TV channel etc
- Why choose this channel against others?
- What information help you to choose/ you will notice? Why?
- Any difficulty with shopping supplements from this channel? Any improvement areas?

For store-based shopping:

- Which store? Why choosing the store?

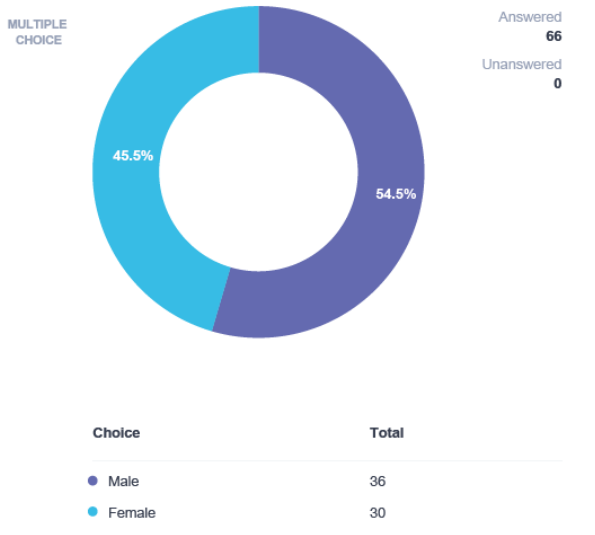
- Why choose this channel against others?
 - What in-store vehicles help you to choose/ you will notice? Why?
 - Any difficulty with shopping supplements from this channel? Any improvement areas?
-
- [Different channel for different VMS] Will you use different shopping channels for different brand/SKU? Why? – If yes, what offer you the best shopping experience & why?



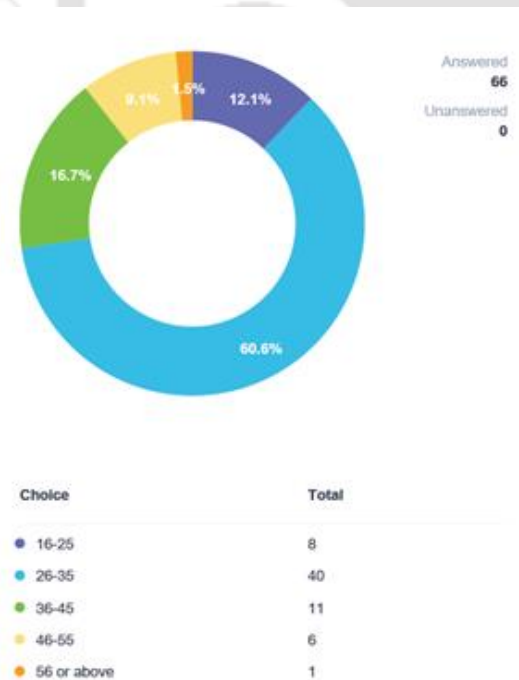
Appendix 5

The questionnaire used for Quantitative User Study (Experiment 2, Chapter 4)

Q1 To help us ask the right questions, please select your gender



Q2 Please select your age group



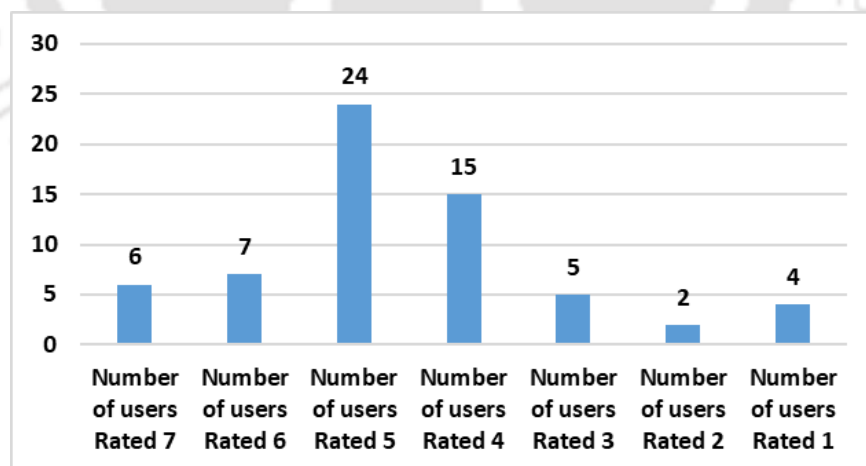
Q3 As we are expecting consumers from several countries to join this survey, can you please type your nationality below?

Q4



Imagine you are in the process of making purchase decision about a product (e.g. a Bluetooth Headset). You haven't used such a product before. You know that there are several brands offering such products (e.g. Sony, Samsung, Apple, LG, Jabra, Bose etc...). You have done some information searching, however haven't made your selection yet. Please answer to following questions with this context.

You know that your Friend is using a Bluetooth Headset. On a scale of 1 to 7, how likely are you to make your decision based on a friend's recommendation? Score 7 if you are incredibly **LIKELY** to follow the recommendation.

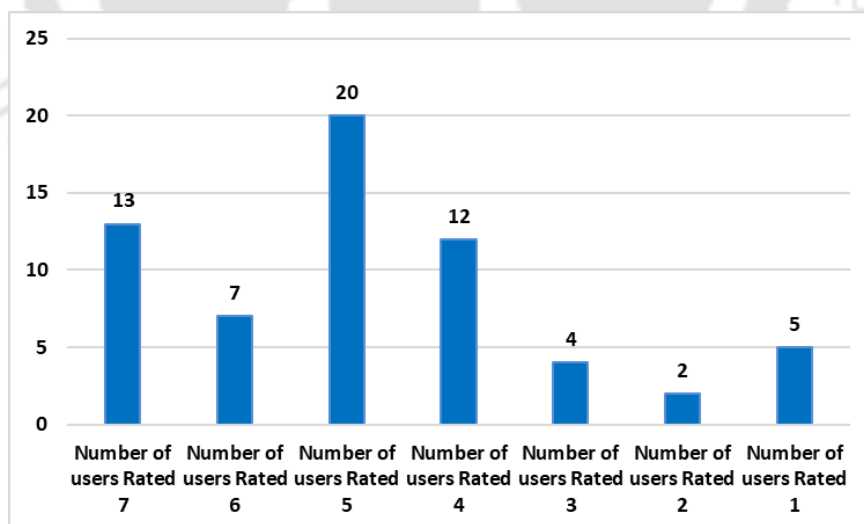


Q5



Imagine you are in the process of making purchase decision about a product (e.g. a Bluetooth Headset). You haven't used such a product before. You know that there are several brands offering such products (e.g. Sony, Samsung, Apple, LG, Jabra, Bose etc...). You have done some information searching, however haven't made your selection yet. Please answer to following questions with this context.

You know that one of your family members (e.g., cousin, uncle, etc.) is using a Bluetooth Headset. On a scale of 1 to 7, how likely are you to make your decision based on family member's recommendations? Score 7 if you are incredibly **LIKELY** to follow the recommendation.

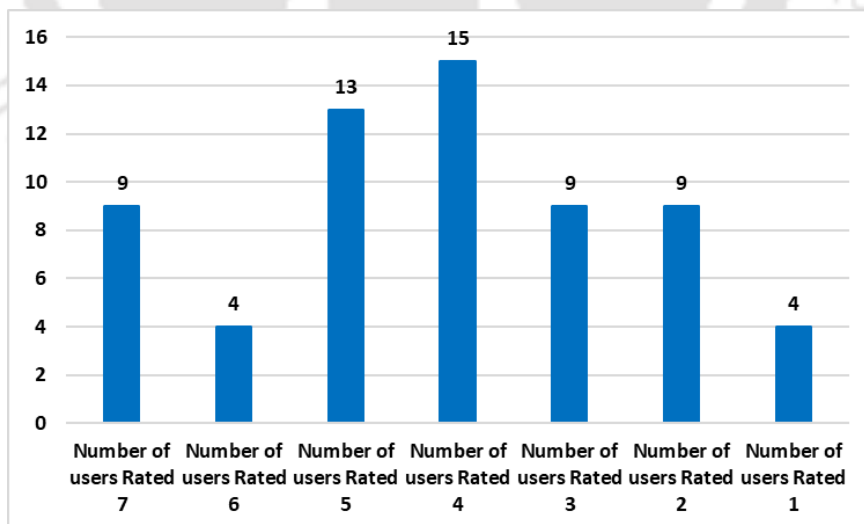


Q6



Imagine you are in the process of making purchase decision about a product (e.g. a Bluetooth Headset). You haven't used such a product before. You know that there are several brands offering such products (e.g. Sony, Samsung, Apple, LG, Jabra, Bose etc...). You have done some information searching, however haven't made your selection yet. Please answer to following questions with this context.

You saw staff from the brand (e.g., a salesperson from Samsung or LG or etc..) at the store. On a scale of 1 to 7, how likely are you to make the decision based on the brand staff's recommendation? Score 7 if you are incredibly LIKELY to follow the recommendation.

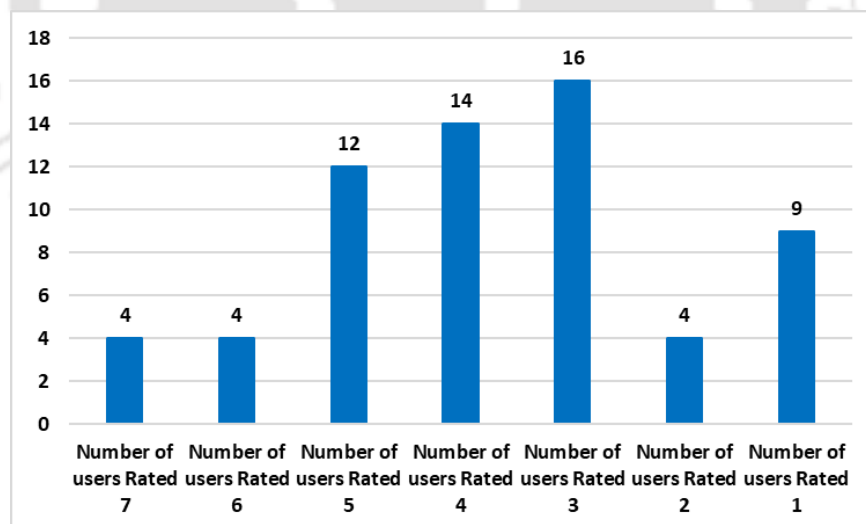


Q7



Imagine you are in the process of making purchase decision about a product (e.g. a Bluetooth Headset). You haven't used such a product before. You know that there are several brands offering such products (e.g. Sony, Samsung, Apple, LG, Jabra, Bose etc...). You have done some information searching, however haven't made your selection yet. Please answer to following questions with this context.

You saw an advertisement for the brand on TV. On a scale of 1 to 7, how likely are you to make the decision based on the TV advertisement? Score 7 if you are extremely LIKELY to make the decision based on the advertisement.

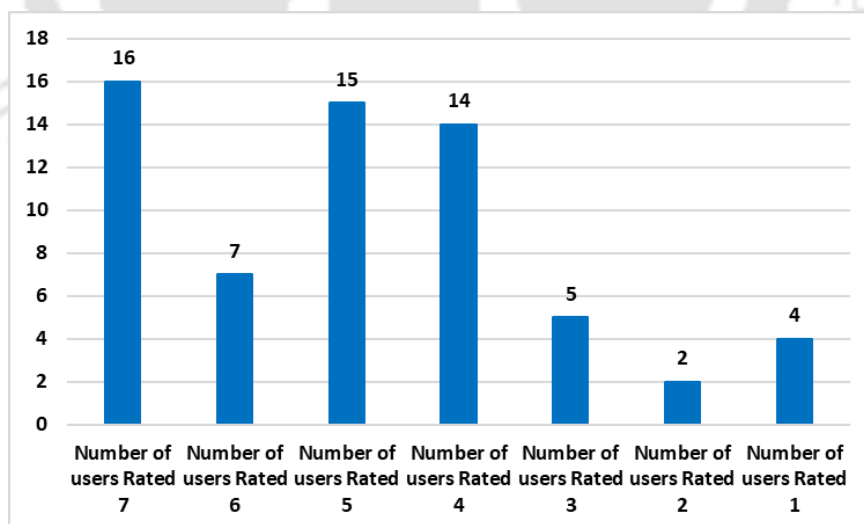


Q8



Imagine you are in the process of making purchase decision about a product (e.g. a Bluetooth Headset). You haven't used such a product before. You know that there are several brands offering such products (e.g. Sony, Samsung, Apple, LG, Jabra, Bose etc...). You have done some information searching, however haven't made your selection yet. Please answer to following questions with this context.

You saw an informative program on the TV (e.g., an Engineering Expert talking about the product). On a scale of 1 to 7, how likely are you to make the decision based on the expert's opinion? Score 7 if you are incredibly **LIKELY** to make the decision based on the expert's opinion.

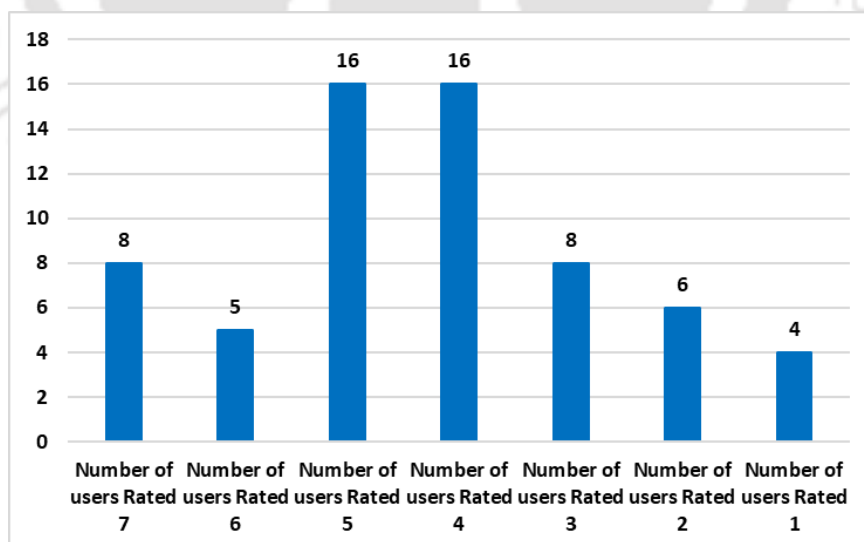


Q9



Imagine you are in the process of making purchase decision about a product (e.g. a Bluetooth Headset). You haven't used such a product before. You know that there are several brands offering such products (e.g. Sony, Samsung, Apple, LG, Jabra, Bose etc...). You have done some information searching, however haven't made your selection yet. Please answer to following questions with this context.

You saw the product at the store, and you found it looks beautiful. On a scale of 1 to 7, how likely are you to make decisions based on the 'Beautiful look' of the product? Score 7 if you are extremely LIKELY to make the decision, based the beautiful look of the product.

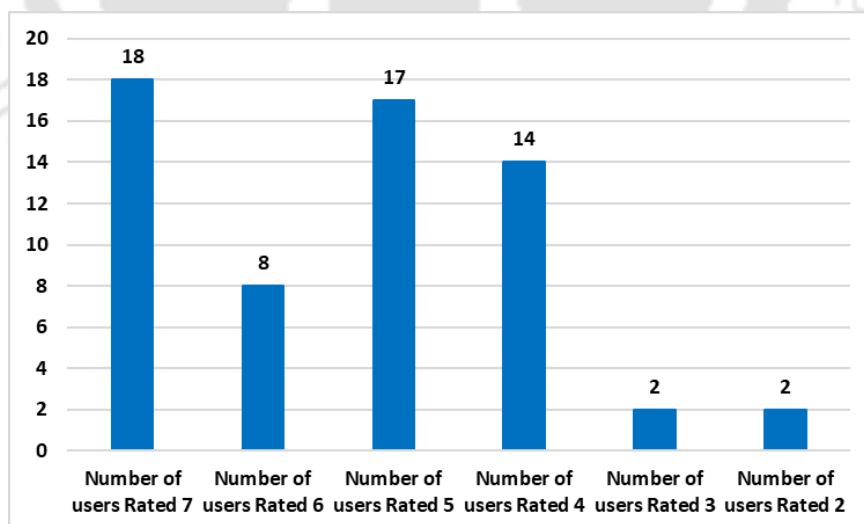


Q10



Imagine you are in the process of making purchase decision about a product (e.g. a Bluetooth Headset). You haven't used such a product before. You know that there are several brands offering such products (e.g. Sony, Samsung, Apple, LG, Jabra, Bose etc...). You have done some information searching, however haven't made your selection yet. Please answer to following questions with this context.

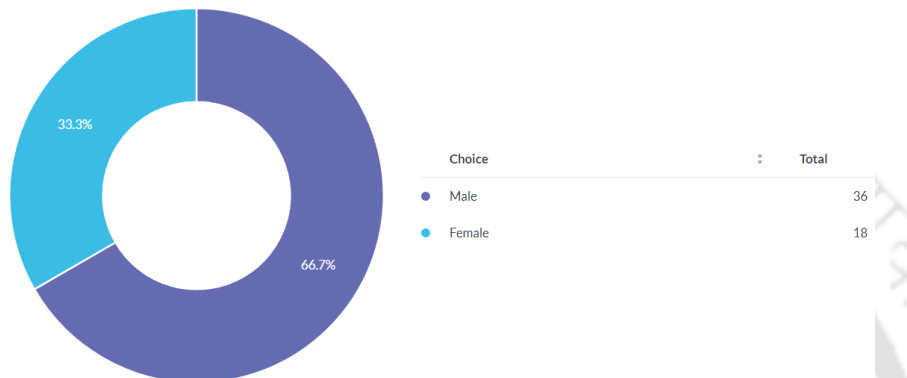
You saw the product at the store, you read about the product and its features. On a scale of 1 to 7, how likely are you to make decisions based on the information you read about the product? Score 7 if you are extremely **LIKELY** to make decisions based on information read about the product.



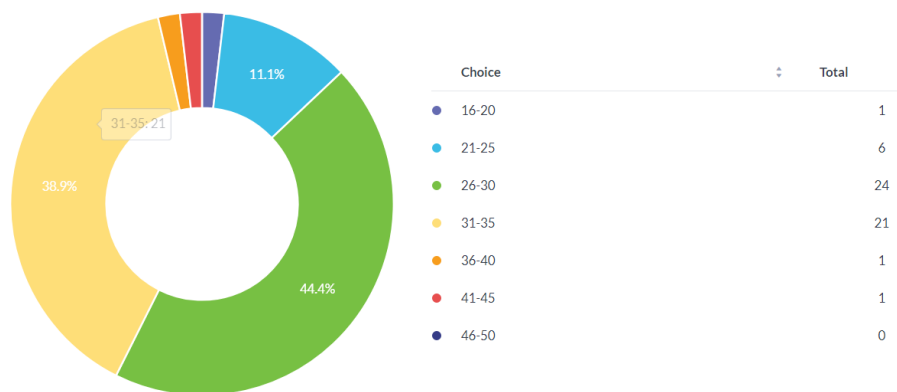
Appendix 6

Questionnaire Used for Personal Customization User Study (Experiment 3, Chapter 4)

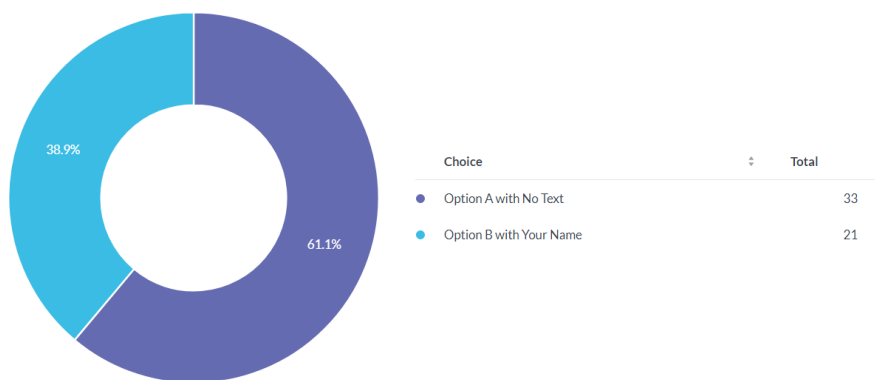
Q1 To help us ask the right questions, please select your gender.



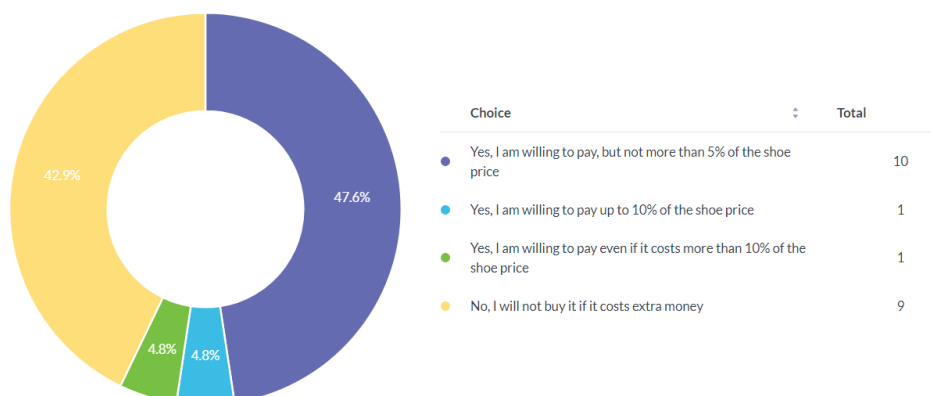
Q2 To help us ask the right questions, please select your age group.



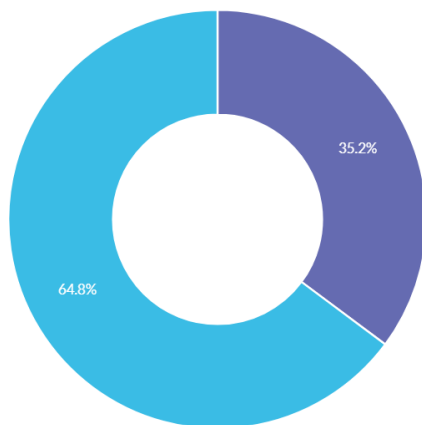
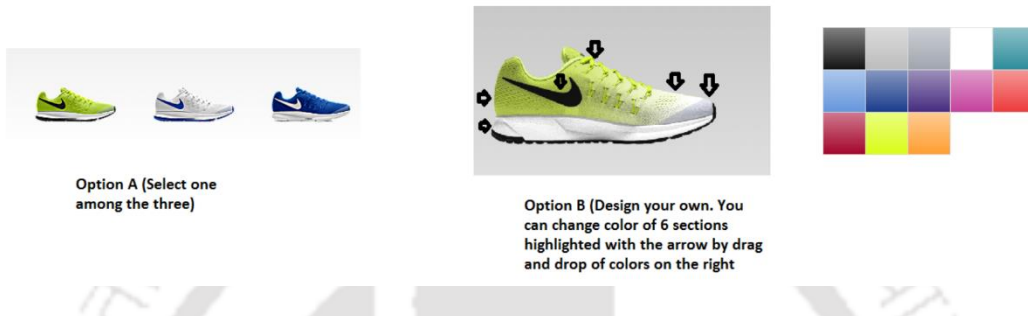
Q3 Imagine you are doing online shopping for sports shoes. You are now at the online store to make a product selection. You saw several models, and you like one of them. The product is available in two options. Option A has no texts typed on it. Option B is personal customization with your name. Which among the two would you select?



Q4 Would you be willing to pay more for personal customization?

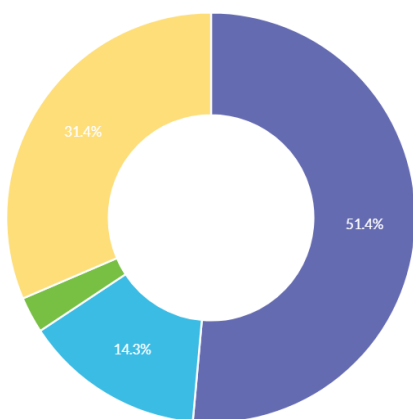


Q5 Imagine you are doing online shopping for sports shoes. You are now at the online store to make a product selection. You saw a model you like. It has a few different color options. You can choose one of the standard models presented on the left (Option A), or you can design your own (Assign colors to each part of the shoe (body, base, etc..) by simply doing drag and drop (Option B). Which option would you prefer?



Choice	Total
Option A- I would select one of the standard Options	19
Option B- I would design my own by drag & drop of colors	35

Q6 Would you be willing to pay more for personal customization?



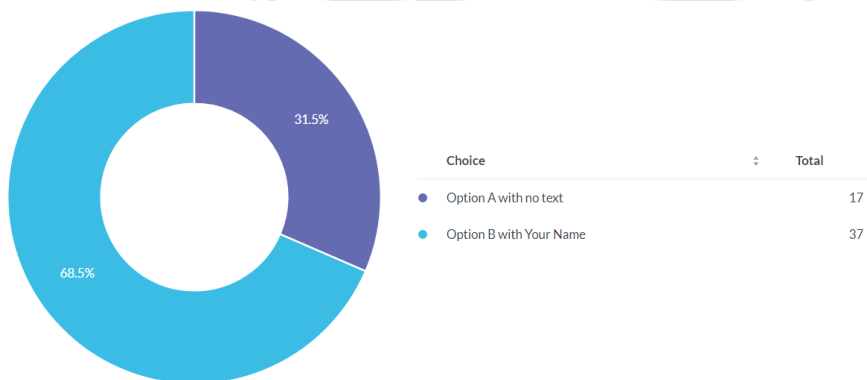
Choice	Total
Yes, I am willing to pay, but not more than 5% of the shoe price	18
Yes, I am willing to pay up to 10% of the shoe price	5
Yes, I am willing to pay even if it costs more than 10% of the shoe price	1
No, I will not buy it if it costs extra money	11

Q7 Imagine you are doing online shopping for a pen. You are now at the online store to make a product selection. You saw several models, and you like one of them. The product is available in two options. Option A has no texts typed on it. Option B is personal customization with your name. Which among the two would you select?

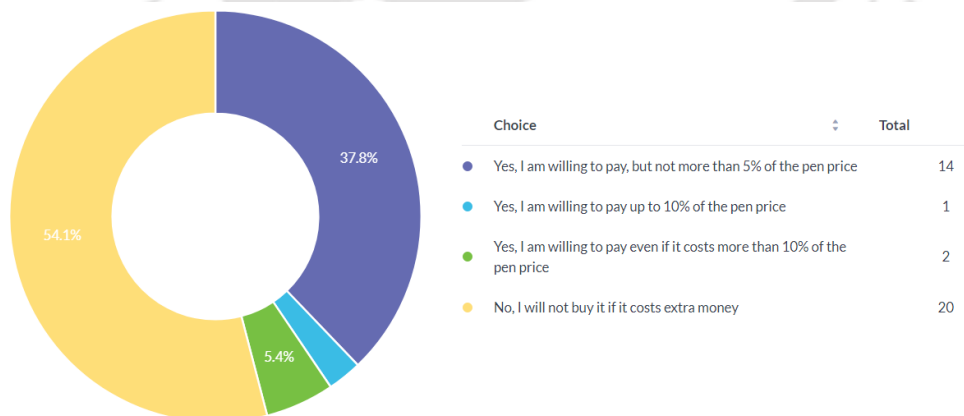


Option A: With no text

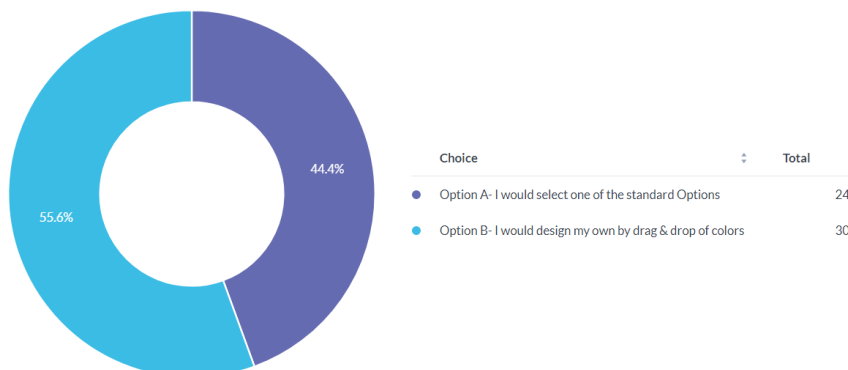
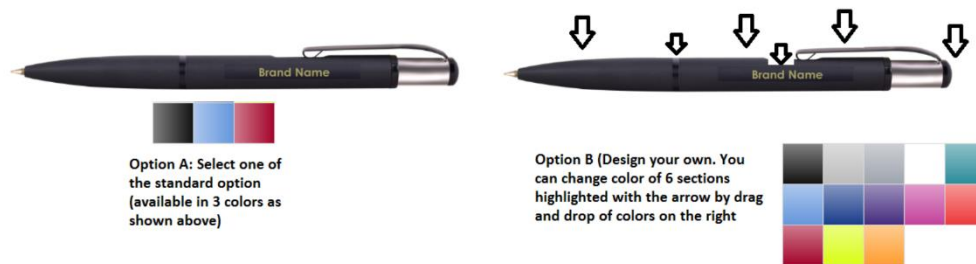
Option B: With your name printed on it



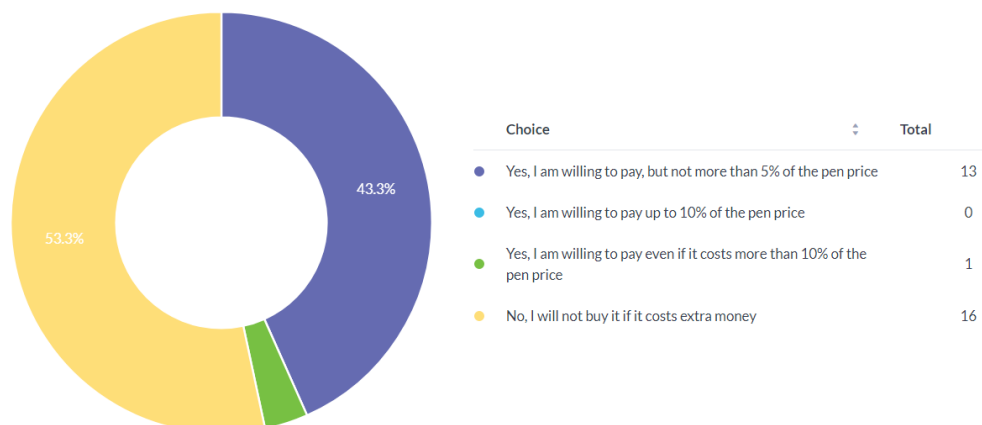
Q8 Would you be willing to pay more for personal customization?



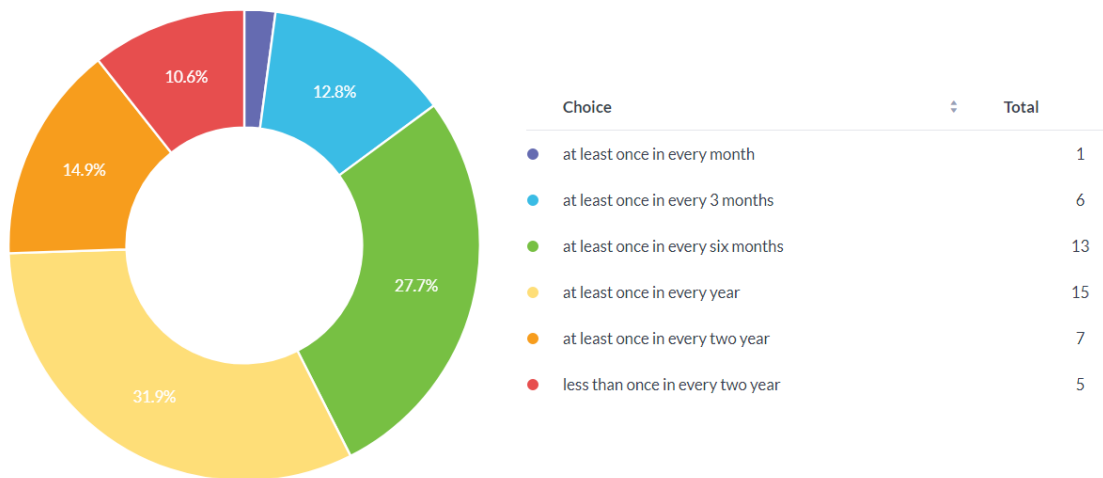
Q9 Imagine you are doing online shopping for a pen. You are now at the online store to make a product selection. You saw a model you like. It has a few different color options. You can choose a standard model (Option A), or you can design your own (Assign a color to each part of the pen by simply doing drag and drop, Option B). Which option would you prefer?



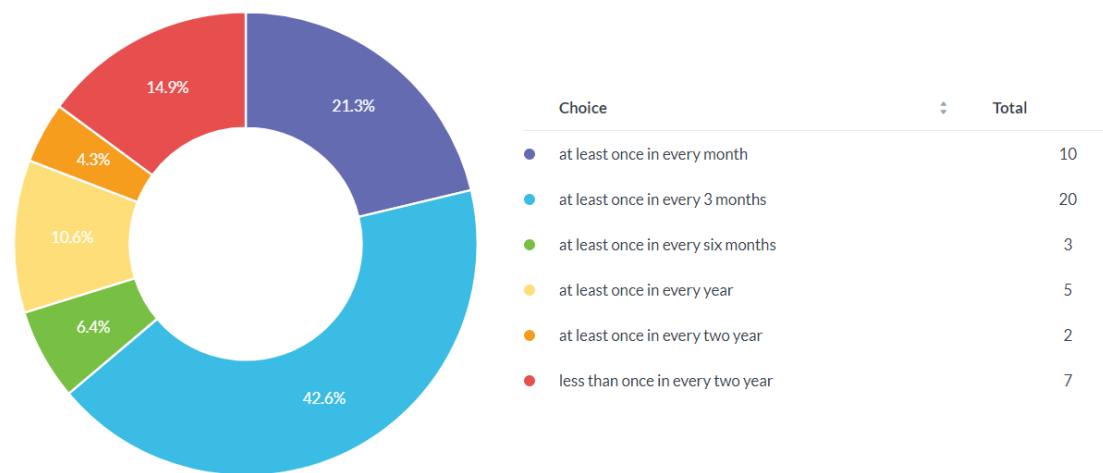
Q10 Would you be willing to pay more for personal customization.*



Q11 How often do you usually shop sports shoes?



Q12 How often do you usually shop pens?



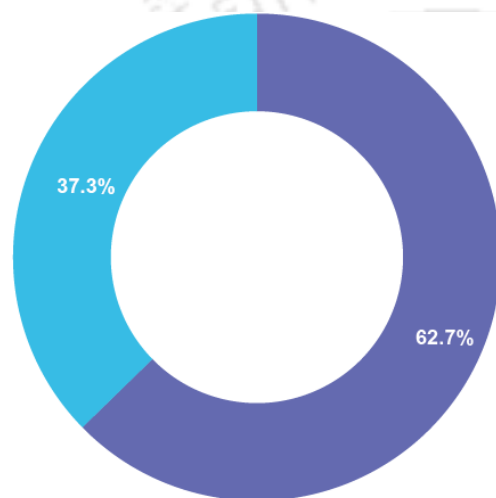
Appendix 7

Questionnaire Used for Experiment 1 (Chapter 5)

Q1 - Please enter your first name.

Q2 - What is your nationality?

Q3 - What is your gender?

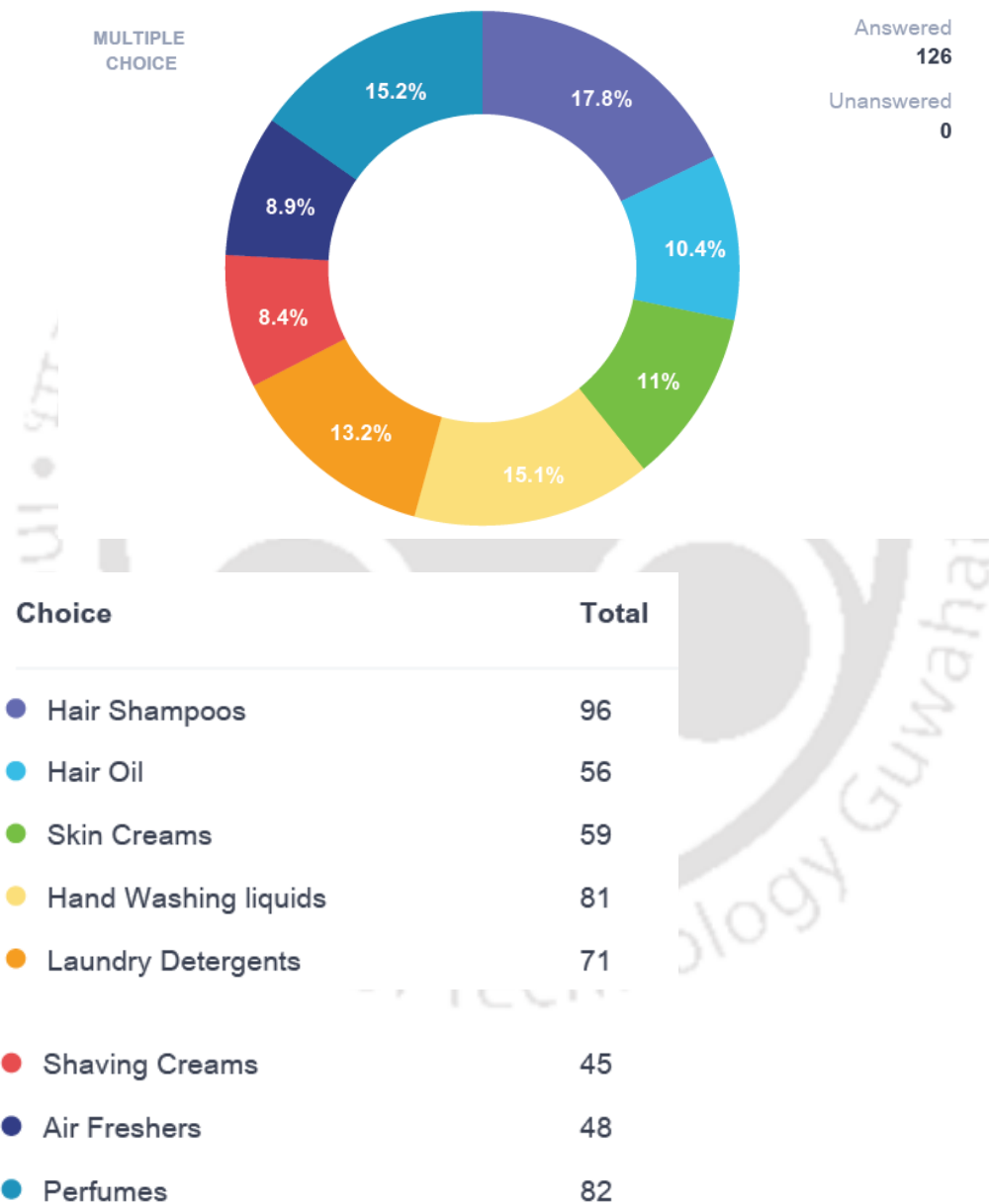


Choice	Total
● Male	79
● Female	47

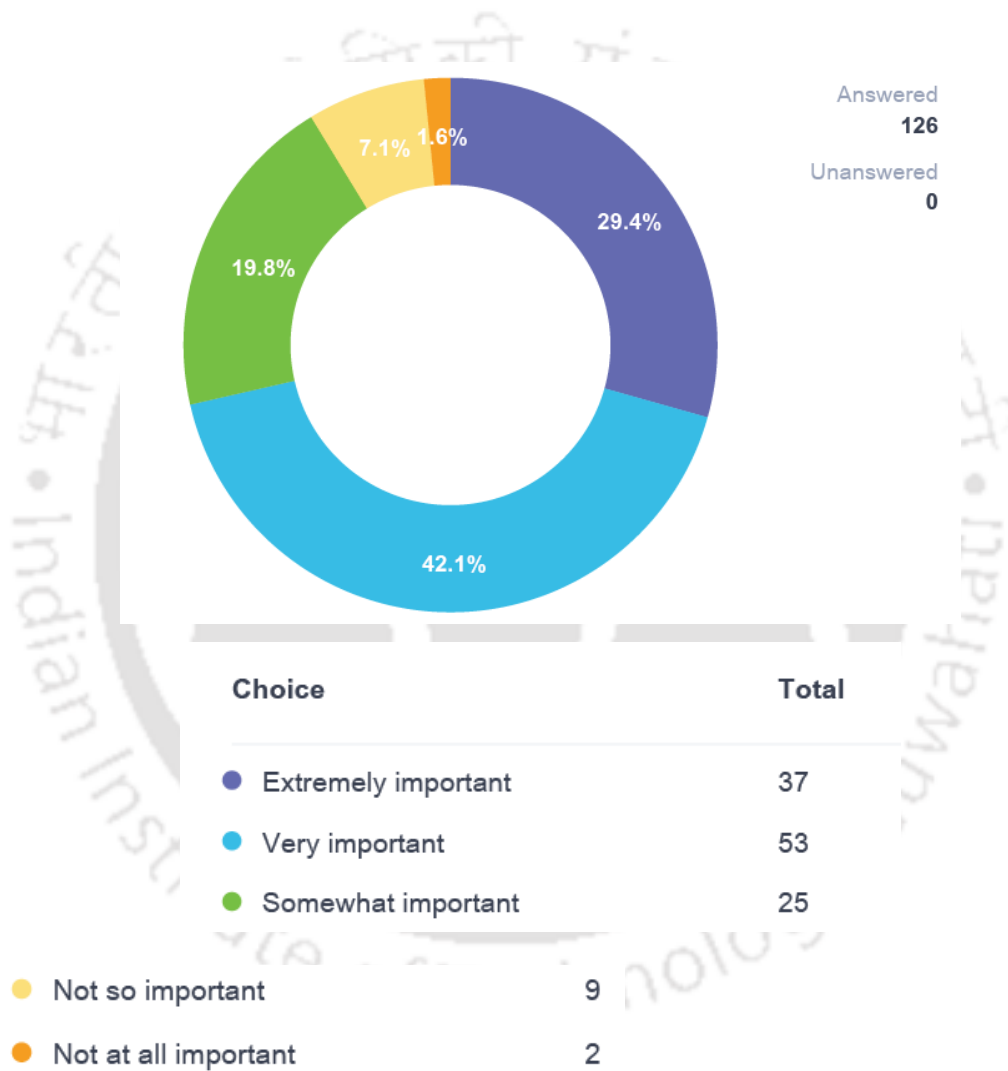
Q4 - What is your age?

Choice	Total
● 18-24	7
● 25-34	92
● 35-44	26
● 45-54	1
● 55-64	0

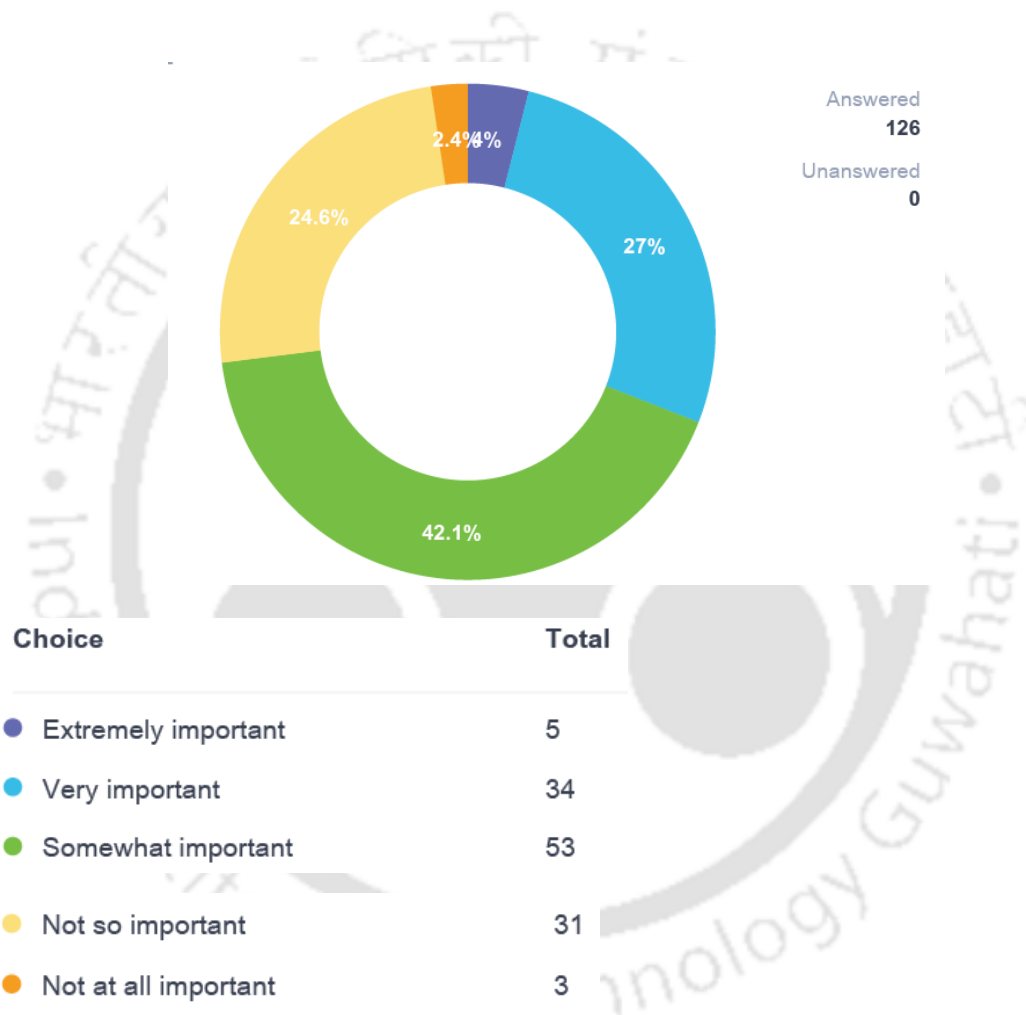
Q5 - What types of FMCG products do you typically buy? Please select all that are applicable (Hair Shampoos).



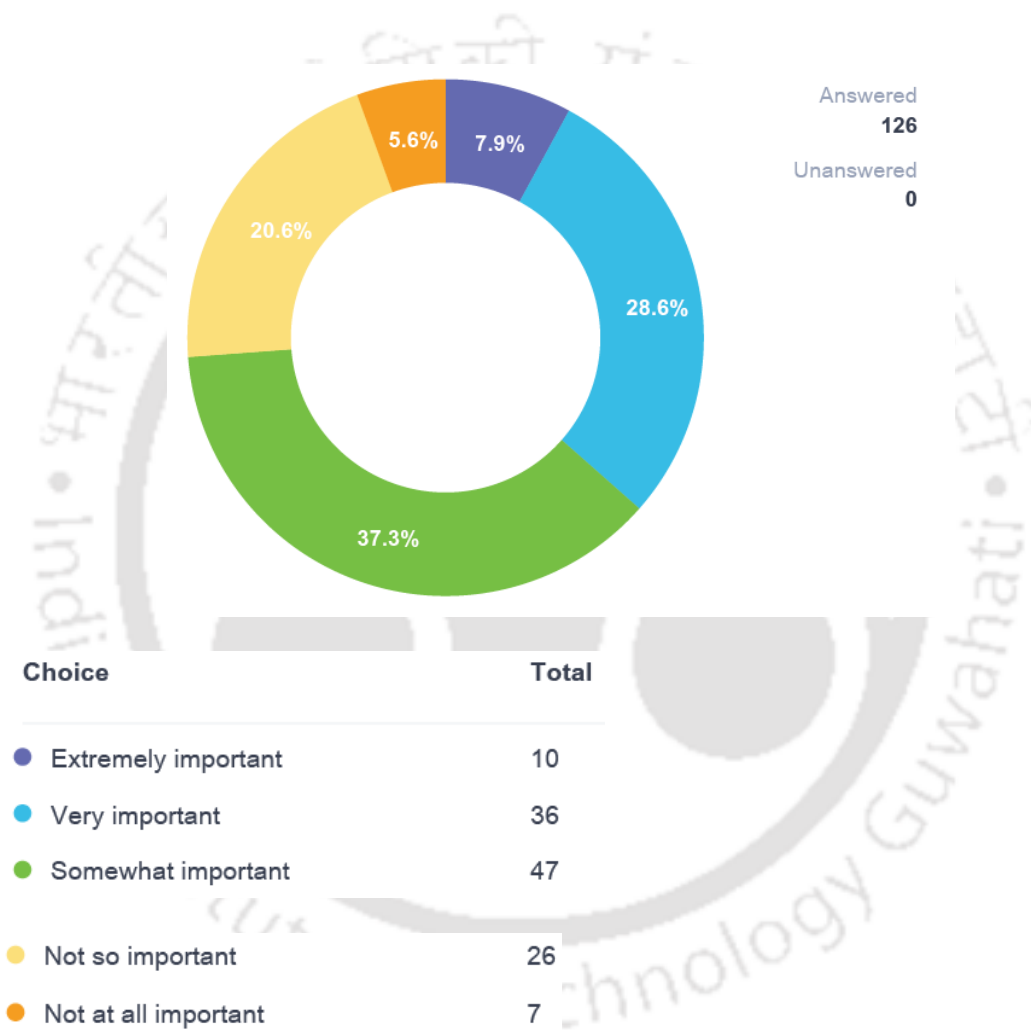
Q6 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is the Brand Name of the product in making your purchase decision?



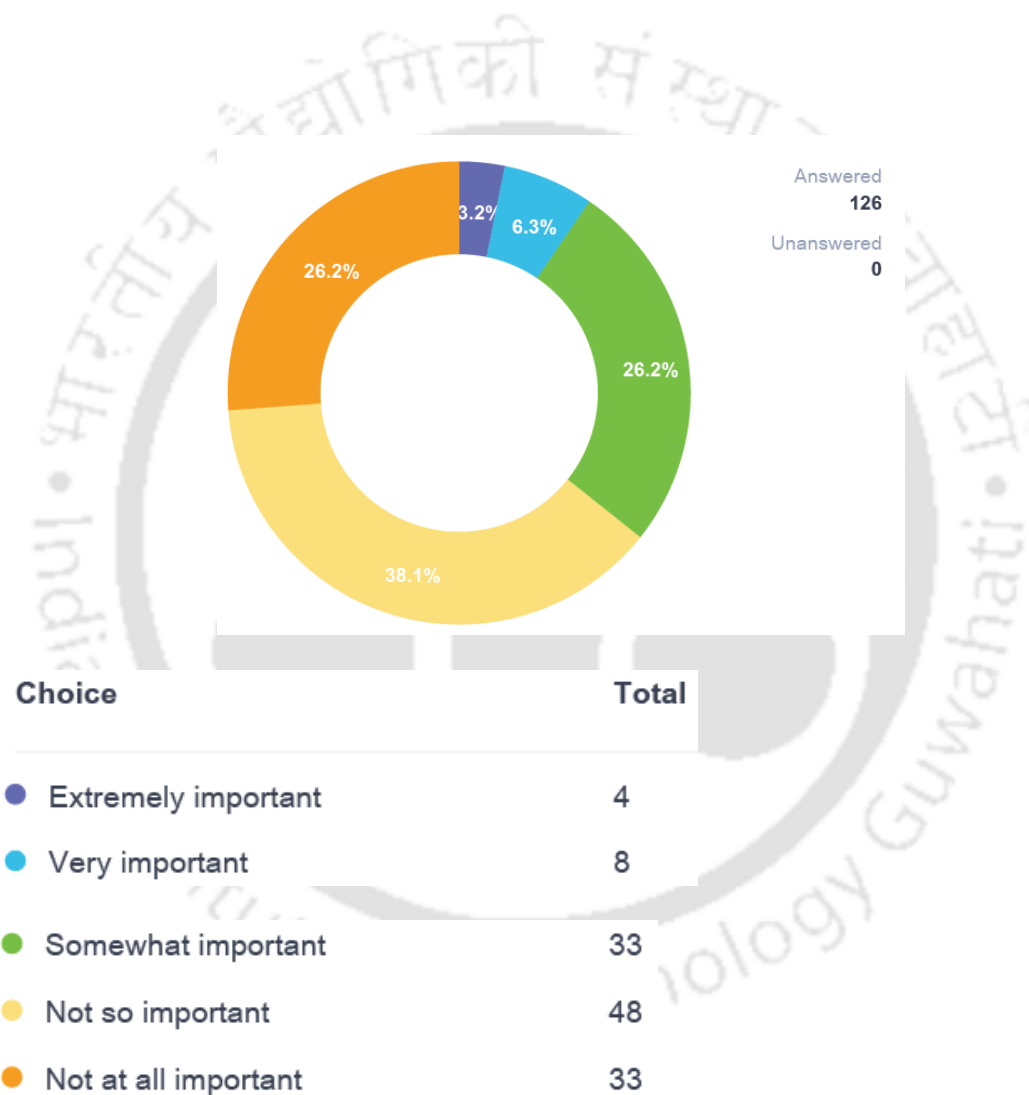
Q7 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is the Advertisement of the product in making your purchase decision?



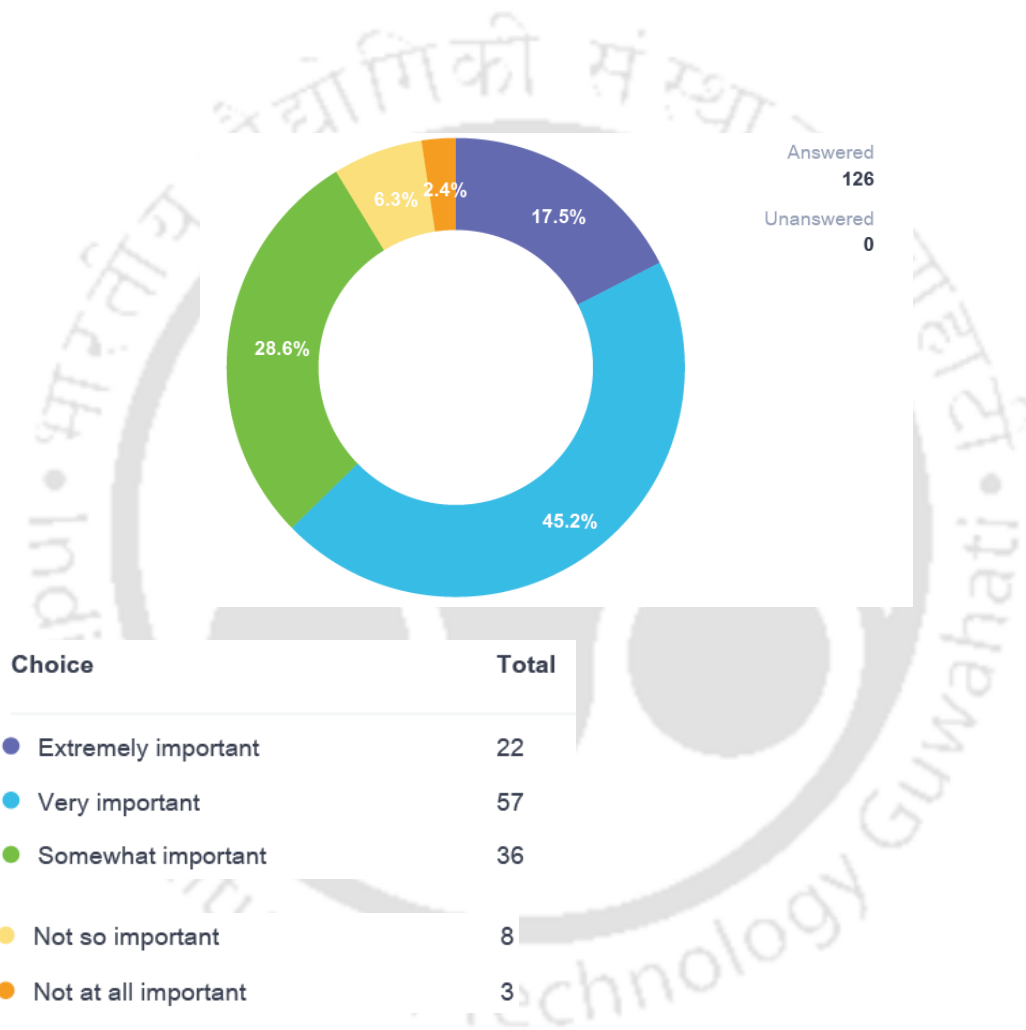
Q8 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is the Beautiful look of the package in making your purchase decision?



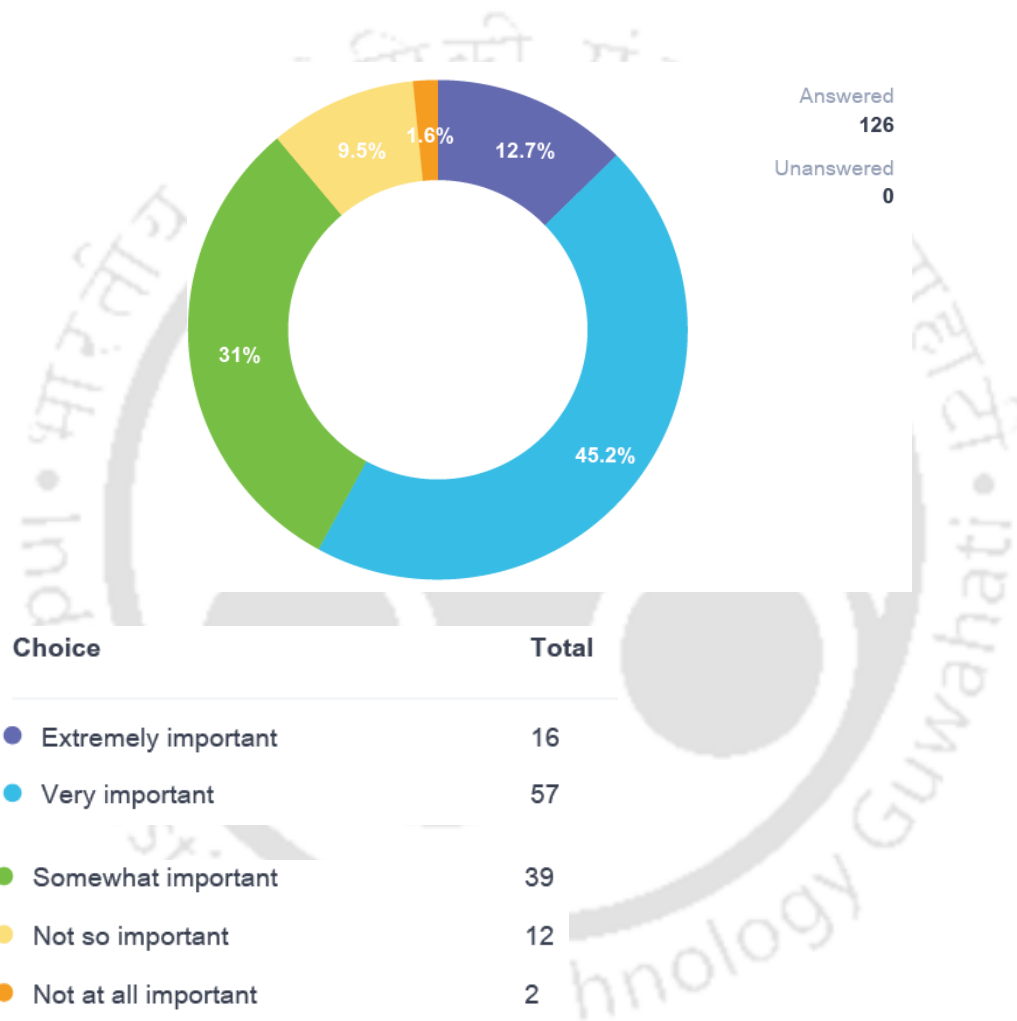
Q9 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is Celebrity used in the advertisement of the product in making your purchase decision?



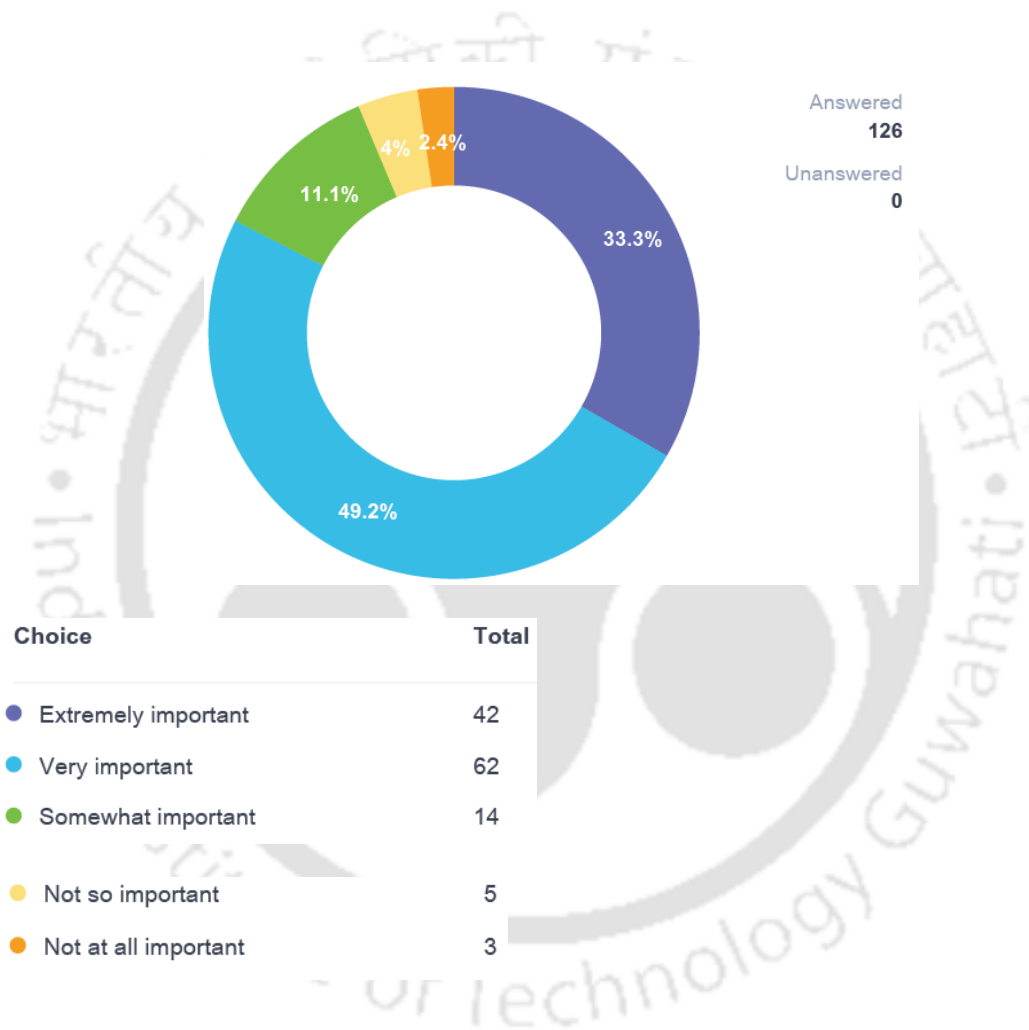
Q10 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is Fragrance (scent) of the product in making your purchase decision?



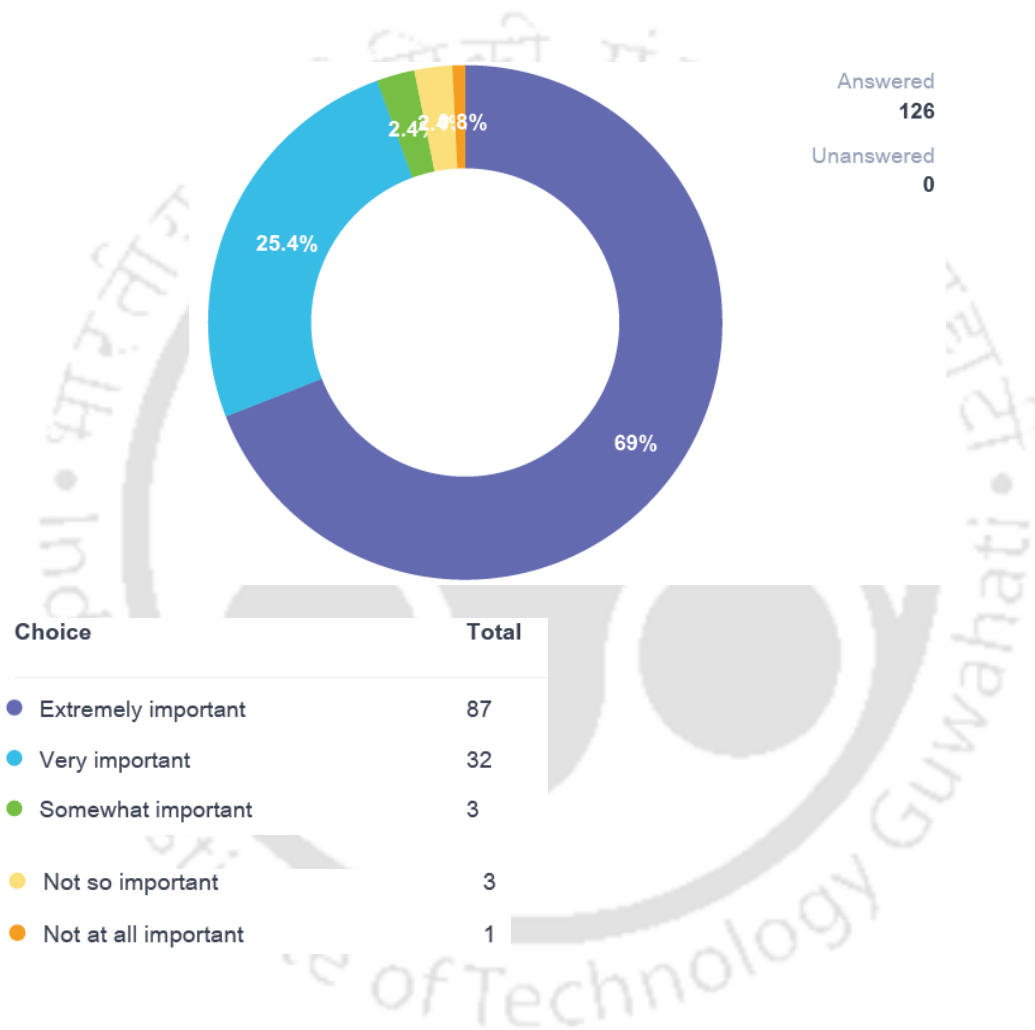
Q11 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is Texture (**the feel, appearance, or consistency**) of the product in making your purchase decision?



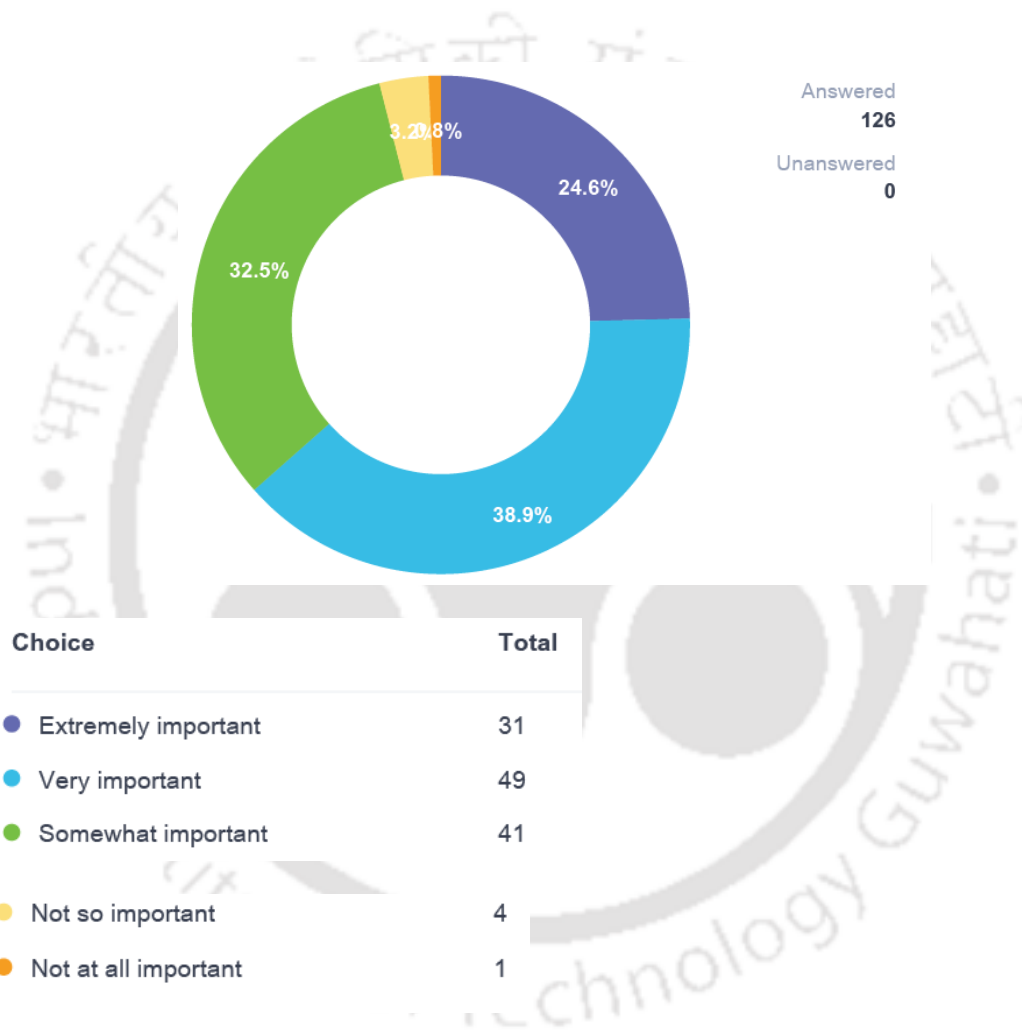
Q12 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is the Efficacy of the product in making your purchase decision?



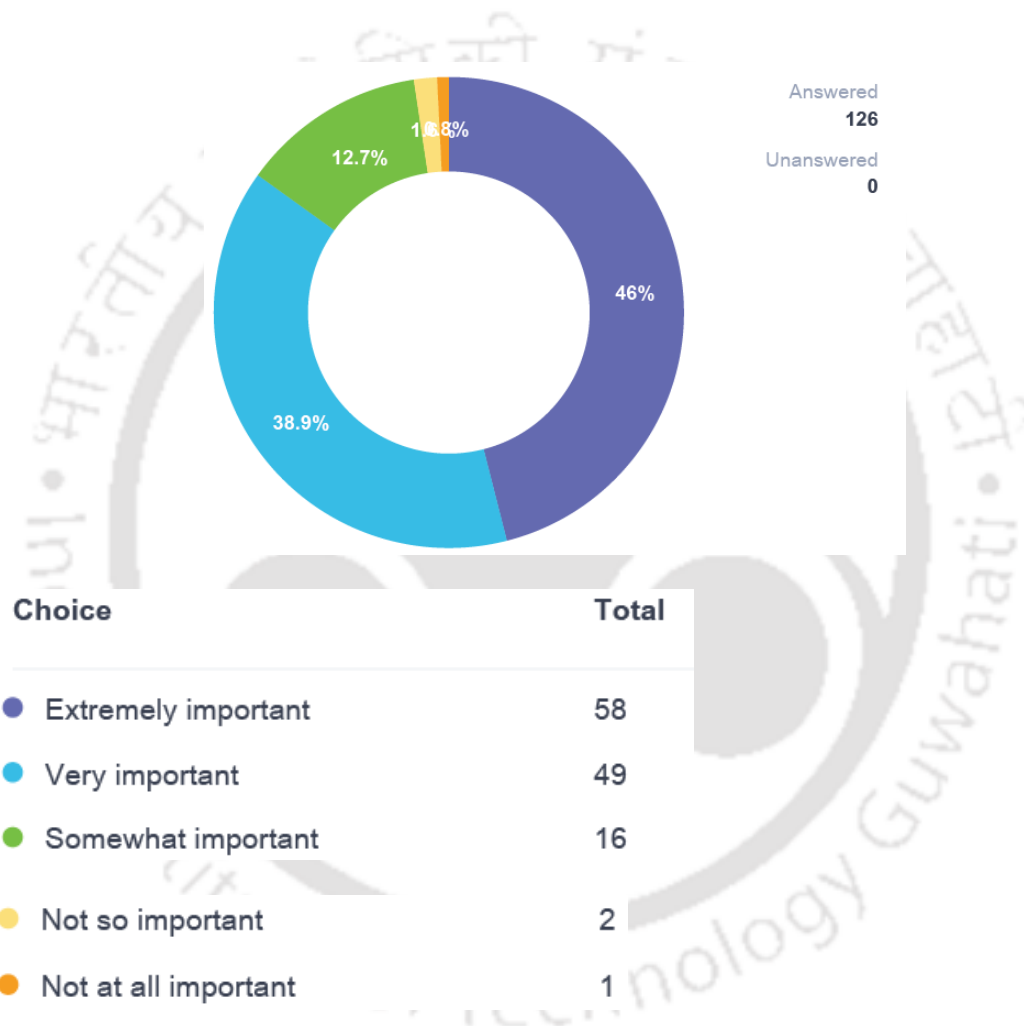
Q13 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is the Quality of the product in making your purchase decision?



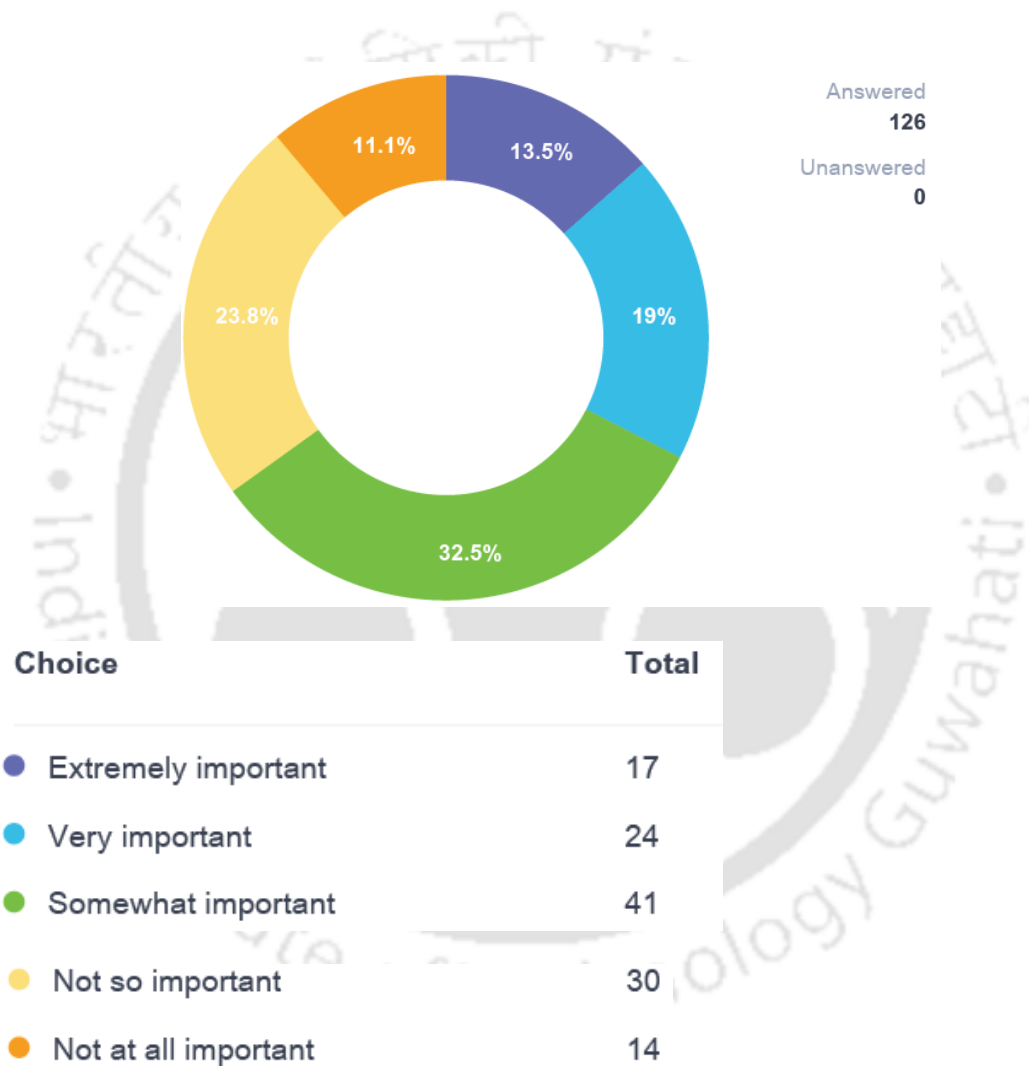
Q14 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is the Price of the product in making your purchase decision?



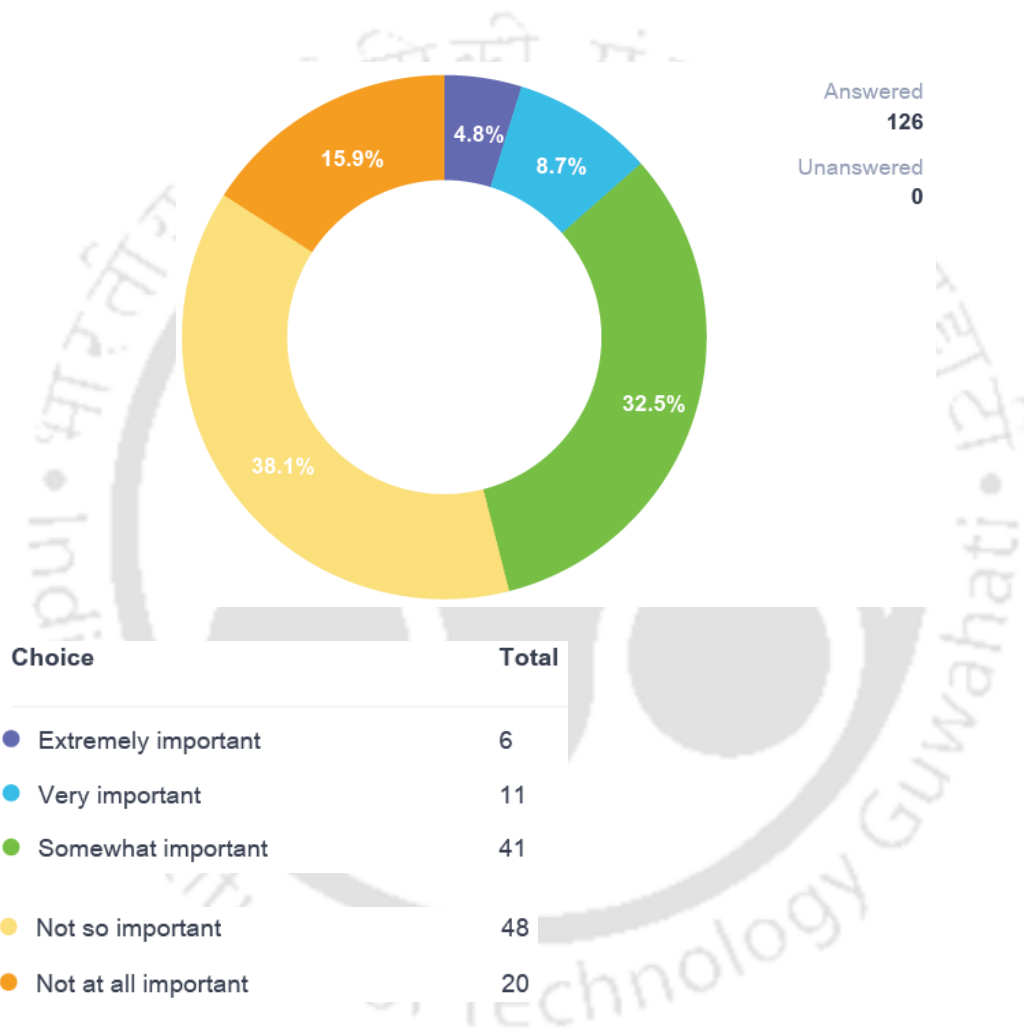
Q15 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is Good usage experience of the product in making your purchase decision?



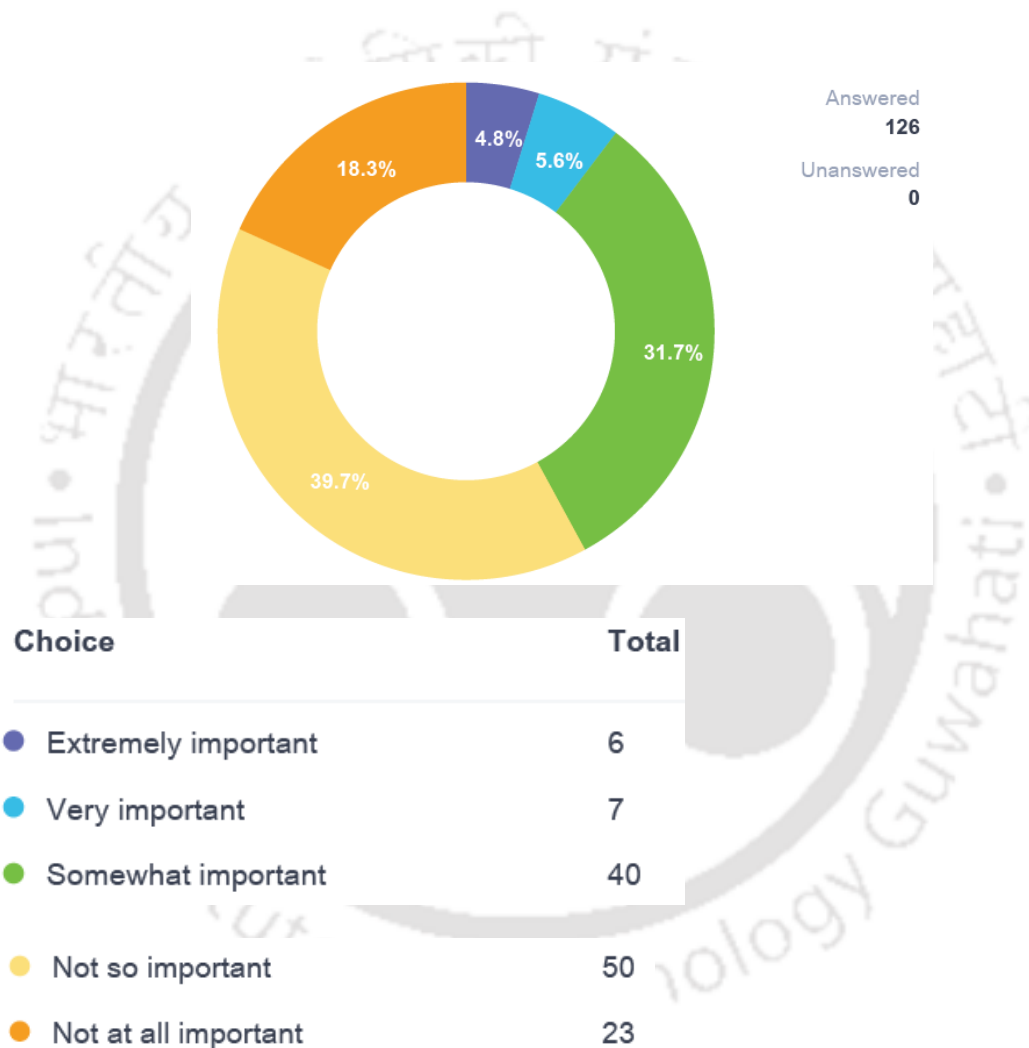
Q16 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is Country of Origin of the product in making your purchase decision?



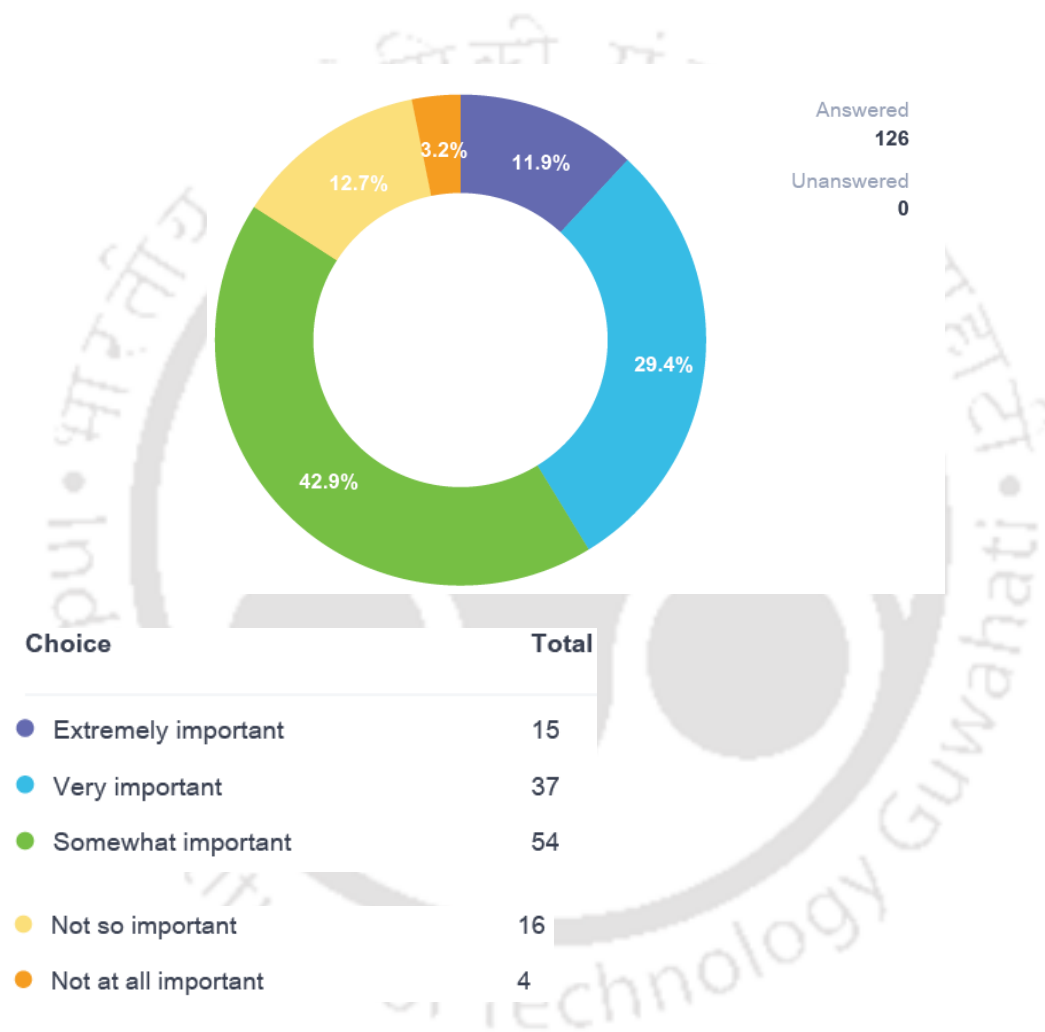
Q17 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is the Color of the package in making your purchase decision?



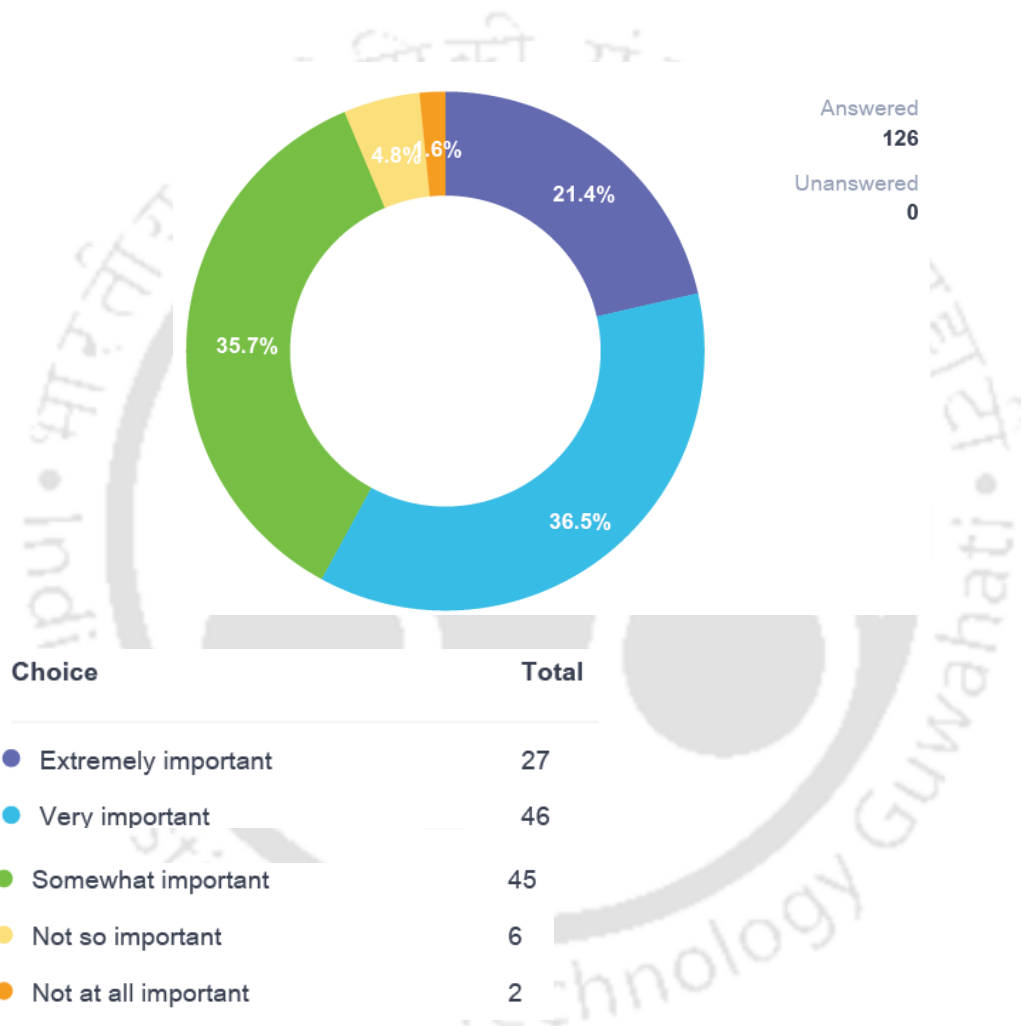
Q18 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is the Shape of the package in making your purchase decision?



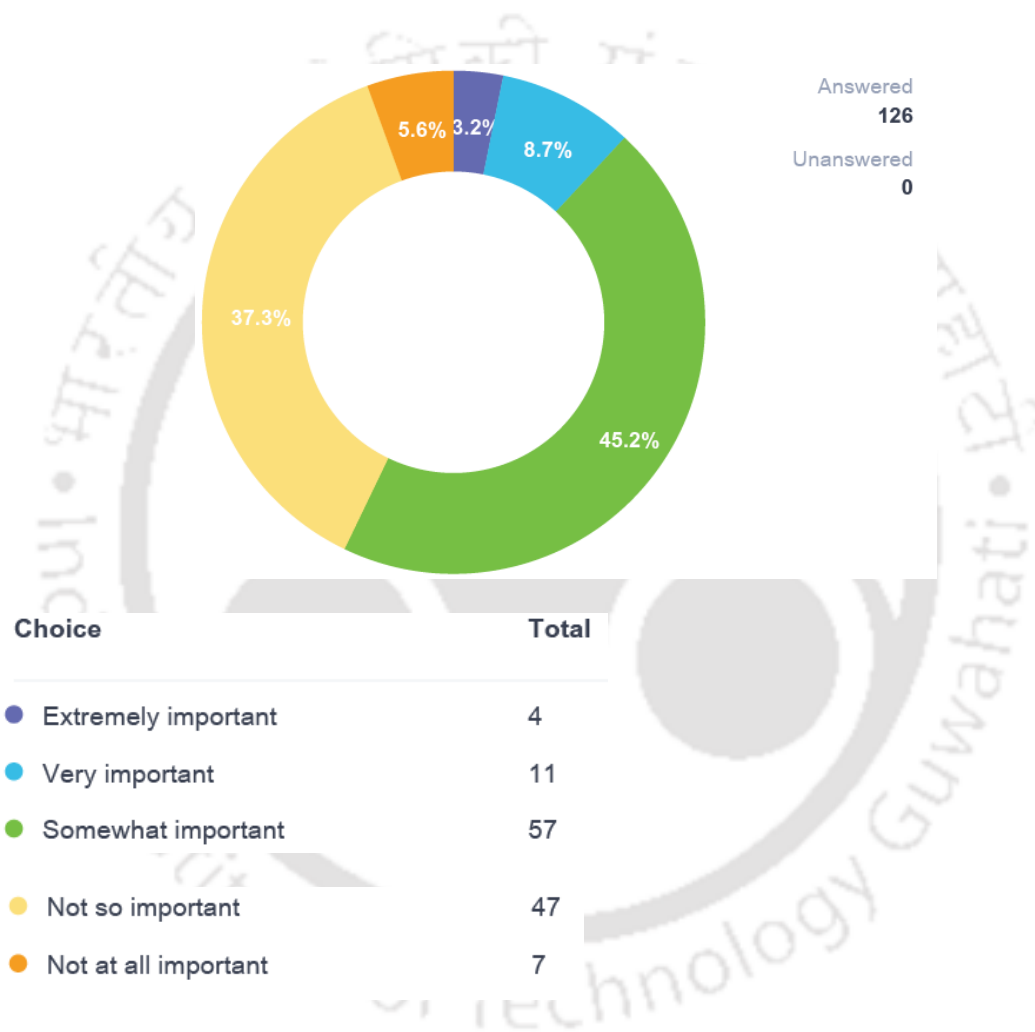
Q19 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is the convenience of using the package in making your purchase decision?



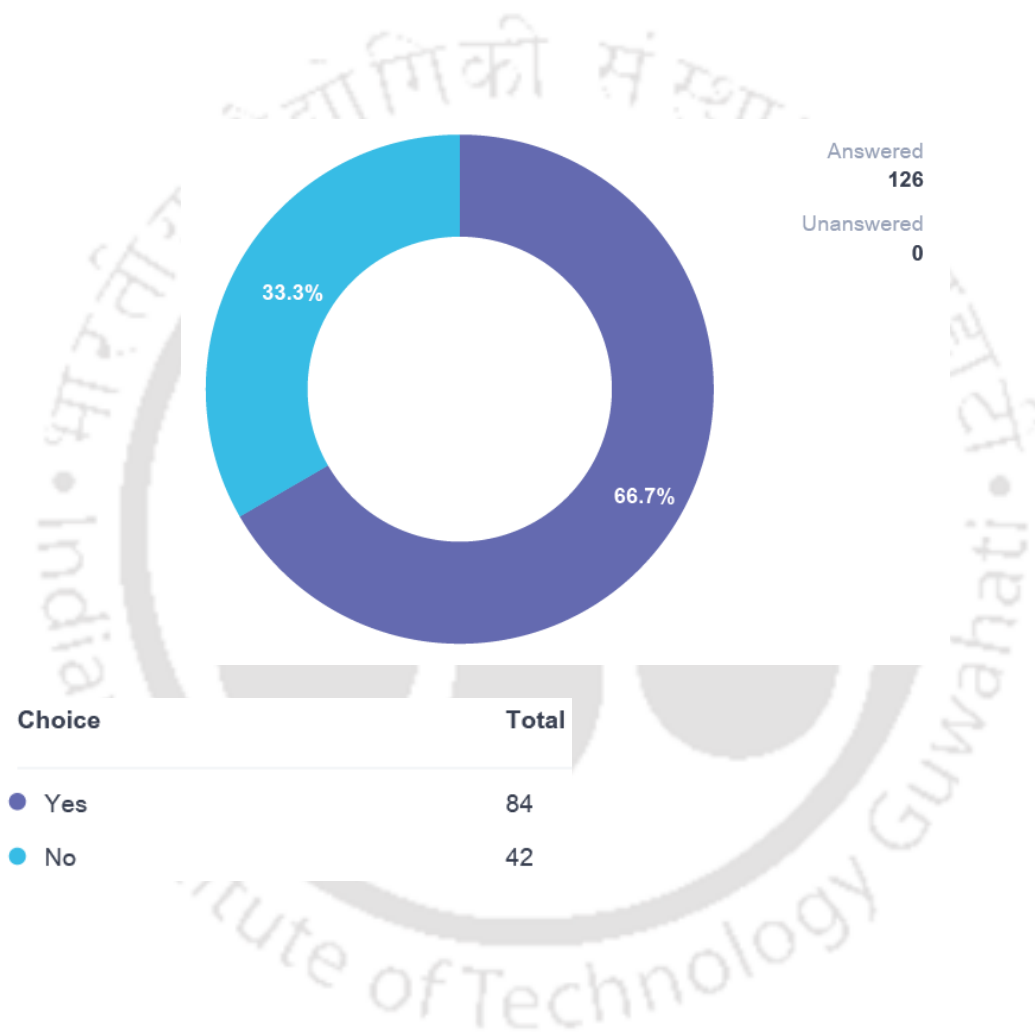
Q20 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is Recommendation from a friend or a family member in making your purchase decision?



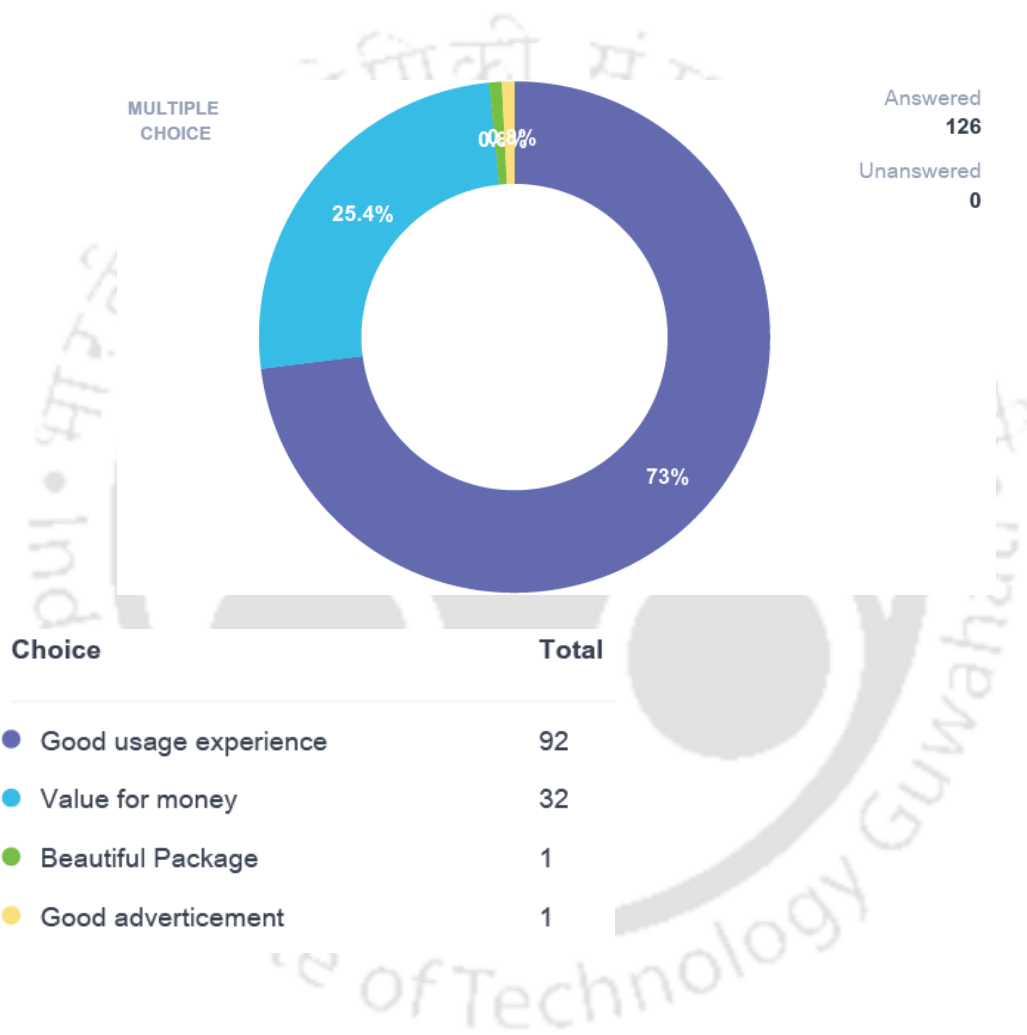
Q21 - When it comes to purchasing consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), how important is Recommendation from a salesperson in making your purchase decision?



Q22 - When it comes to consumer goods (e.g., skin creams, hair shampoos, hand washing liquids, etc.), have you ever had any bad purchase experiences? By bad purchase experience, we mean, you purchased the product expecting a certain effect/experience, etc., but the product did not provide it.



Q23 - What would make you recommend a consumer goods product to your friend or family member?



Q24 - In the context of buying consumer goods (e.g., hair shampoos, skin creams, hand washing liquids, etc.), which of the following makes most unhappy? Please select three.

Choice	Total
● Unpleasant usage experience	102
● Unpleasant fragrance (scent)	55
● Poor package quality	15
● High Price	64
● Unpleasant texture (feel, appearance, or consistency) of the product	23
● Package Color not appealing	2
● Package shape not appealing	3
● Package is not convenient to use	14
● Bad customer service	43

Q25 - In the context of buying consumer goods (e.g., hair shampoos, skin creams, hand washing liquids, etc..), which of the following parameters are more important in making you repeat purchase (buy the product again once you finish the first one) a product? Please select three.

Choice	Total
● Good usage experience	111
● Good fragrance (scent)	52
● Good package quality	13
● Value for money	85
● Good texture (feel, appearance, or consistency) of the product	19
● Package Color	2
● Package shape	0
● Beautiful look of the package	2
● Convenient Package	12
● Good customer service	33

Appendix 8A

Study Logistics for Experiment 2 (Chapter 5)

Set up three rooms for the research.

Room 1:

The following activities are done in Room one.

- Briefing with the user about research methodology
- Confidentiality Agreement
- Pre-Test Questionnaire
- Post-Shopping Questionnaire.

Room 2: Product Experience Room

- Video camera for recording
- Product experience counter (Table with 'test' product. This room/area would require a washbasin for experiencing the product)

Room 3: Shopping Room

- Video Camera for recording
- Two sets of retail product shelves to mimic a retail store. One rack for handwashing liquid products and second rack for hair shampoos.

Appendix 8B

Briefing Instruction for Data Collectors (Main Test, Experiment 2, Chapter 5)

Users successfully completing the recruitment questionnaire should be randomly assigned to two groups. (Test and Control Groups). All data collectors should interview an equal number of men and women and an equal number of test and control group users to avoid bias due to data collection styles.

Test Male	Control Male	Test Women	Control Women

- i. Both groups will go through a small set of pre-test questionnaire about the category familiarity and purchase behavior.
- ii. After the pre-test is complete, the control group will go straight to the store, and the experimental group will go to the product experience room (data collector to accompany the panelist). In the experience room, panelists can experience the products (both liquid hand wash and shampoo). Users can spend as much time as needed to experience the products and ask any questions they may have.
- iii. Panelists will be directed to the store. Interviewers should not follow the user to the store. The panelists would be asked to buy one product, each from liquid handwash and shampoo category. Panelists can spend as much time as they need for shopping. Once the products are purchased, the panelist will proceed to the check out without making the payment. The interviewer would be meeting the panelist outside the store.
- iv. The panelists will then proceed to answer the post-shopping questionnaire.
- v. Thank the participant for their time. Pass the reward for attending the study and get the signature.

Appendix 8C

Recruitment Questionnaire (Experiment 2, Chapter5)

The following recruitment questionnaire is used for the Pilot Test and Main Test of Experiment two in Chapter 5.

1. Name (പേര്):
2. Address (വിലാസം):
3. Phone Number (ഫോൺ നമ്പർ):
4. Age (വയസ്സ്):
 - a) Less than 18 years old (18 വയസ്സിന് താഴെ)
 - b) 18 – 24
 - c) 25 – 34
 - d) 35 – 44
 - e) 45- 54
 - f) 55 years and older (55 വയസും അതിനു മുകളിലും)
5. Education (വിദ്യാഭ്യാസം)
 - a) High school or below (ഹൈസ്കൂൾ അല്ലെങ്കിൽ താഴെ)
 - b) Higher secondary school (12th standard equivalent) ഹയർ സെക്കൻഡറി സ്കൂൾ (പന്ത്രണ്ടാം ക്ലാസ്)
 - c) Graduate (ബിരുദം)
 - d) Post Graduate (ബിരുദാനന്തര ബിരുദം)

6. How familiar are you with the following category of products?

താഴെ പറയുന്ന വിഭാഗത്തിലെ ഉൽപ്പന്നങ്ങളുമായി നിങ്ങൾ എത്രത്തോളം പരിചിതരാണ്?

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ
a) Extremely Familiar അങ്ങേയറ്റം പരിചയമുണ്ട്	a) Extremely Familiar അങ്ങേയറ്റം പരിചയമുണ്ട്
b) Very familiar വളരെ പരിചയമുണ്ട്	b) Very familiar വളരെ പരിചയമുണ്ട്
c) Moderately familiar മിതമായ പരിചയമുണ്ട്	c) Moderately familiar മിതമായ പരിചയമുണ്ട്
d) Slightly familiar അല്പം പരിചയമുണ്ട്	d) Slightly familiar അല്പം പരിചയമുണ്ട്
e) Not at all familiar ഒട്ടും പരിചയമില്ല	e) Not at all familiar ഒട്ടും പരിചയമില്ല

7. When was the last time you used the following category of products?
 താഴെപ്പറയുന്ന വിഭാഗത്തിൽപ്പെട്ട ഉൽപ്പന്നങ്ങൾ
 അവസാനമായി നിങ്ങൾ എപ്പോഴാണ് ഉപയോഗിച്ചത്?

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ
a) At least onetime in last one week കഴിഞ്ഞ ഒരു ആഴ്ചയിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും	a) At least onetime in last one week കഴിഞ്ഞ ഒരു ആഴ്ചയിൽ കുറഞ്ഞത് ഒരു വണയെങ്കിലും
b) At least onetime in last one month കഴിഞ്ഞ ഒരു മാസത്തിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും	b) At least onetime in last one month കഴിഞ്ഞ ഒരു മാസത്തിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും
c) At least one time in the last six months കഴിഞ്ഞ 6 മാസങ്ങളിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും	c) At least one time in the last six months കഴിഞ്ഞ 6 മാസങ്ങളിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും
d) At least one time in the last year കഴിഞ്ഞ വർഷത്തിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും → Terminate	d) At least one time in the last year കഴിഞ്ഞ വർഷത്തിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും → Terminate

<p>e) Never used in last year</p> <p>കഴിഞ്ഞ ഒരു വർഷത്തിനിടെ ഒരിക്കലും ഉപയോഗിച്ചിട്ടില്ല</p> <p>→ Terminate</p>	<p>e) Never used in last year</p> <p>കഴിഞ്ഞ ഒരു വർഷത്തിനിടെ ഒരിക്കലും ഉപയോഗിച്ചിട്ടില്ല</p> <p>→ Terminate</p>
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8. When was the last time you purchased a product from the following category?

താഴെപ്പറയുന്ന വിഭാഗത്തിൽപ്പെട്ട ഉൽപ്പന്നങ്ങൾ നിങ്ങൾ
എപ്പോഴാണ് അവസാനമായി വാങ്ങിയത്?

<p>Liquid Hand Wash</p> <p>കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)</p>	<p>Shampoo</p> <p>ഷാമ്പൂ</p>
<p>a) At least one time last week</p> <p>കഴിഞ്ഞ ഒരു ആഴ്ചയിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും</p>	<p>a) At least one time last week</p> <p>കഴിഞ്ഞ ഒരു ആഴ്ചയിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും</p>
<p>b) At least onetime in last one month</p> <p>കഴിഞ്ഞ ഒരു മാസത്തിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും</p>	<p>b) At least onetime in last one month</p> <p>കഴിഞ്ഞ ഒരു മാസത്തിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും</p>

<p>c) At least one time in the last six months</p> <p>കഴിഞ്ഞ 6 മാസങ്ങളിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും</p>	<p>c) At least one time in the last six months</p> <p>കഴിഞ്ഞ 6 മാസങ്ങളിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും</p>
<p>d) At least one time in the last year</p> <p>കഴിഞ്ഞ വർഷത്തിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും</p>	<p>d) At least one time in the last year</p> <p>കഴിഞ്ഞ വർഷത്തിൽ കുറഞ്ഞത് ഒരു തവണയെങ്കിലും</p>
<p>e) Never purchased in last one year</p> <p>കഴിഞ്ഞ ഒരു വർഷത്തിനിടെ ഒരിക്കലും വാങ്ങിച്ചിട്ടില്ല</p>	<p>e) Never purchased in last one year</p> <p>കഴിഞ്ഞ ഒരു വർഷത്തിനിടെ ഒരിക്കലും വാങ്ങിച്ചിട്ടില്ല</p>

9. When it comes to products in the following category, what is your habits and practice for product purchase?

താഴെക്കൊടുത്തിരിക്കുന്ന വിഭാഗങ്ങളിൽ ഉല്പന്നങ്ങൾ വരുമ്പോൾ

ഉല്പന്ന വാങ്ങലിനായി നിങ്ങളുടെ ശീലങ്ങൾ എന്താണ്?

<p style="text-align: center;">Liquid Hand Wash</p> <p style="text-align: center;">കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)</p>	<p style="text-align: center;">Shampoo</p> <p style="text-align: center;">ഷാംപൂ</p>
<p>a) I decide which product to buy, and I buy it myself most often</p> <p style="text-align: center;">ഏതെല്ലാം ഉൽപ്പന്നങ്ങൾ വാങ്ങണമെന്ന് ഞാൻ തീരുമാനിക്കുകയും അവ മിക്കപ്പോഴും ഞാൻ തന്നെ വാങ്ങുകയും ചെയ്യുന്നു</p>	<p>a) I decide which product to buy, and I buy it myself most often</p> <p style="text-align: center;">ഏതെല്ലാം ഉൽപ്പന്നങ്ങൾ വാങ്ങണമെന്ന് ഞാൻ തീരുമാനിക്കുകയും അവ മിക്കപ്പോഴും ഞാൻ തന്നെ വാങ്ങുകയും ചെയ്യുന്നു</p>
<p>b) I decide the product, but someone else buys it for me most often</p> <p style="text-align: center;">ഞാൻ ഉൽപ്പന്നത്തെ തീരുമാനിക്കുന്നു, പക്ഷേ മറ്റാരോ എനിക്കായി മിക്കപ്പോഴും വാങ്ങുന്നു</p>	<p>b) I decide the product, but someone else buys it for me most often</p> <p style="text-align: center;">ഞാൻ ഉൽപ്പന്നത്തെ തീരുമാനിക്കുന്നു, പക്ഷേ മറ്റാരോ എനിക്കായി മിക്കപ്പോഴും വാങ്ങുന്നു</p>
<p>c) Someone else decides the product and buy it for me</p> <p style="text-align: center;">മറ്റാരെങ്കിലും ഉൽപ്പന്നം തീരുമാനിച്ചു എനിക്കായി വാങ്ങുന്നു</p>	<p>c) Someone else decides the product and buy it for me</p> <p style="text-align: center;">മറ്റാരെങ്കിലും ഉൽപ്പന്നം തീരുമാനിച്ചു എനിക്കായി വാങ്ങുന്നു</p>

10. Where do you normally buy products like shampoos and liquid hand wash?

ഷാമ്പൂസുകളും ലിക്വിഡ് ഹാൻഡ് വാഷും (കൈ കഴുകുന്ന ദ്രാവകം) പോലെയുള്ള ഉൽപ്പന്നങ്ങൾ നിങ്ങൾ പതിവായി എവിടെനിന്നാണ് വാങ്ങുന്നത്?

- a) I buy it at a nearby store (ഞാനത് അടുത്തുള്ള കടയിൽ വാങ്ങുന്നു)
- b) I buy it online (ഞാൻ ഓൺലൈനായി വാങ്ങുന്നു)
- c) I typically don't buy these type of products (സാധാരണയായി ഞാൻ ഈ തരത്തിലുള്ള ഉൽപ്പന്നങ്ങൾ വാങ്ങാറില്ല)

11. Do you have an allergy to any consumer goods, especially liquid handwash and shampoos?

നിങ്ങൾക്ക് നിങ്ങൾ ഏതെങ്കിലും ഉപഭോക്തൃ ഉൽപ്പന്നങ്ങളോട്, പ്രത്യേകിച്ച് ഷാമ്പൂസുകളും ലിക്വിഡ് ഹാൻഡ് വാഷും പോലെയുള്ള ഉൽപ്പന്നങ്ങളോട് അലർജി ഉണ്ടോ?

- a. Yes (ഉണ്ട്)
- b. No (ഇല്ല)

Appendix 8D

Questionnaire for the Pilot Test (Chapter 5, Experiment 2)

1. For the following category of products, what is the brand name of the current product you are using?

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളുടെ വിഭാഗത്തിൽ, നിങ്ങൾ ഉപയോഗിക്കുന്ന നിലവിലെ ഉൽപ്പന്നത്തിന്റെ ബ്രാൻഡ് നാമം എന്താണ്?

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

2. For the following category of products, how satisfied are you with your current product? Rate 9 if you are extremely satisfied, rate one if you are not at all satisfied.

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളെ സംബന്ധിച്ച്, നിങ്ങളുടെ നിലവിലെ ഉൽപ്പന്നത്തിൽ നിങ്ങൾ എത്രത്തോളം സംതൃപ്തരാണ്? നിങ്ങൾ വളരെ സംതൃപ്തനാണെങ്കിൽ സ്കോർ 9 കൊടുക്കുക, നിങ്ങൾ ഒട്ടും തൃപ്തനല്ലെങ്കിൽ സ്കോർ 1 കൊടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

3. For the following category of products, which are the various brands you have purchased in the past?

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളെ സംബന്ധിച്ച്, കഴിഞ്ഞ കാലത്ത് നിങ്ങൾ വാങ്ങിയ വിവിധ ബ്രാൻഡുകൾ എന്തൊക്കെയാണ്?

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

4. For the following category of products, which is the brand you have purchased most often in the past two years?

താഴെപ്പറയുന്ന ഉത്പന്നങ്ങളെ സംബന്ധിച്ച്, കഴിഞ്ഞ രണ്ടുവർഷത്തിനിടയിൽ എത്തവും കൂടുതൽ പ്രാവശ്യം വാങ്ങിയ ബ്രാൻഡ് ഏതാണ്?

<p>Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)</p>	<p>Shampoo ഷാമ്പൂ</p>

5. How likely are you to consider buying a handwashing liquid from the following brand? Score 9 if you are highly likely to buy, score one if you are not at all likely to buy.

താഴെ പറയുന്ന ബ്രാൻഡിൽ നിന്ന് ഒരു കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്) വാങ്ങാൻ എത്ര സാധ്യതയുണ്ട്? നിങ്ങൾ വാങ്ങാൻ വളരെ സാധ്യത ഉണ്ടെങ്കിൽ സ്കോർ 9 കൊടുക്കുക. വാങ്ങാൻ ഒട്ടും സാധ്യത ഇല്ലെങ്കിൽ സ്കോർ 1 കൊടുക്കുക

Santor	Lifebuoy	Savlon	Detol	Lux	Biotique	Pearls	Medimix	Godrej	Palmolive

6. How likely are you to consider buying a shampoo from the following brand? Score 9 if you are highly likely to buy, score one if you are not at all likely to buy.

താഴെ പറയുന്ന ബ്രാൻഡിൽ നിന്ന് ഒരു ഷാമ്പു വാങ്ങാൻ എത്ര സാധ്യതയുണ്ട്? നിങ്ങൾ വാങ്ങാൻ വളരെ സാധ്യത ഉണ്ടെങ്കിൽ സ്കോർ 9 കൊടുക്കുക. വാങ്ങാൻ ഒട്ടും സാധ്യത ഇല്ലെങ്കിൽ സ്കോർ 1 കൊടുക്കുക

Head and shoulders	Biotique	Pantene	Sunsilk	Tresemme	L'Oréal	Clinic Plus	Dove	Matrix	Himalaya

After Answering This Question, Consumers go and use/experience each of the following products and then answers the following questions.

ഈ ചോദ്യത്തിന് മറുപടി നൽകിയ ശേഷം, ഉപഭോക്താക്കൾക്ക് പോയി താഴെപ്പറയുന്ന ഓരോ ഉൽപ്പന്നങ്ങളും ഉപയോഗിക്കുക

(അനുഭവിക്കുക). അതിനുശേഷം താഴെ പറയുന്ന ചോദ്യങ്ങൾക്ക് ഉത്തരം നൽകുക.

7. Based on the product experience you had today, please rate the following statements. Score 9 if you strongly agree to it, score one if you not at all agree to it.

ഇന്ന് നിങ്ങൾക്ക് ലഭിച്ച ഉൽപന്ന അനുഭവത്തിന്റെ അടിസ്ഥാനത്തിൽ ദയവായി താഴെപ്പറയുന്ന പ്രസ്താവനകൾ വിലയിരുത്തുക. നിങ്ങൾ അതിനെ ശക്തമായി അംഗീകരിക്കുന്ന പക്ഷം സ്കോർ 9 കൊടുക്കുക. നിങ്ങൾ ഒട്ടും അംഗീകരിക്കുന്നില്ലെങ്കിൽ സ്കോർ 1 കൊടുക്കുക

	Santoor	Lifebuoy	Savlon	Detol	Lux	Biotique	Pears	Medimix	Godrej	Palmoliv
This package is Beautiful ഈ പാക്കേജ് മനോഹരമാണ്										
I like the color of this package ഈ പാക്കേജിന്റെ നിറം എനിക്ക് ഇഷ്ടമാണ്										

<p>I like the shape of this package</p> <p>ഈ പാക്കേജിൻറെ ആകൃതി എനിക്ക് ഇഷ്ടമാണ്</p>											
<p>I like the Fragrance of this product</p> <p>ഈ ഉല്പന്നത്തിൻറെ സുഗന്ധം എനിക്ക് ഇഷ്ടമാണ്</p>											
<p>I like the texture of this product</p> <p>ഈ ഉല്പന്നത്തിൻറെ രൂപഘടന (ടെക്സ്ചർ)</p>											

എനിക്ക് ഇഷ്ടമാണ്										
This product is very effective ഈ ഉൽപ്പന്നം വളരെ ഫലപ്രദമാണ്										
This product is of very good quality ഈ ഉൽപ്പന്നം വളരെ നല്ല ഗുണനിലവാ രമുള്ളതാണ്										
I like the usage experience of this product ഈ ഉൽപ്പന്നത്തി ന്റെ ഉപയോഗ അനുഭവം ഞാൻ ഇഷ്ടപ്പെടുന്നു										

This package is convenient to use ഈ പാക്കേജ് ഉപയോഗിക്കാൻ എളുപ്പമാണ്										
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8. Based on the product experience you had today, please rate the following statements. Score 9 if you strongly agree to it, score one if you not at all agree to it.

ഇന്ന് നിങ്ങൾക്ക് ലഭിച്ച ഉൽപ്പന്ന അനുഭവത്തിന്റെ അടിസ്ഥാനത്തിൽ ദയവായി താഴെപ്പറയുന്ന പ്രസ്താവനകൾ വിലയിരുത്തുക. നിങ്ങൾ അതിനെ ശക്തമായി അംഗീകരിക്കുന്ന പക്ഷം സ്കോർ 9 കൊടുക്കുക. നിങ്ങൾ ഒട്ടും അംഗീകരിക്കുന്നില്ലെങ്കിൽ സ്കോർ 1 കൊടുക്കുക

	Head and	Biotique	Pantene	Sunsilk	Tresemme	L'Oréal	Clinic Plus	Dove	Matrix	Himalaya
This package is Beautiful ഈ പാക്കേജ് മനോഹരമാണ്										
I like the color of this package										

<p>ഈ പാക്കേജിന്റെ നിറം എനിക്ക് ഇഷ്ടമാണ്</p>										
<p>I like the shape of this package ഈ പാക്കേജിന്റെ ആകൃതി എനിക്ക് ഇഷ്ടമാണ്</p>										
<p>I like the Fragrance of this product ഈ ഉല്പന്നത്തിന്റെ സുഗന്ധം എനിക്ക് ഇഷ്ടമാണ്</p>										
<p>I like the texture of this product ഈ ഉല്പന്നത്തിന്റെ രൂപഘടന (ടെക്സ്ചർ)</p>										

എനിക്ക് ഇഷ്ടമാണ്										
This product is very effective ഈ ഉൽപ്പന്നം വളരെ ഫലപ്രദമാണ്										
This product is of very good quality ഈ ഉൽപ്പന്നം വളരെ നല്ല ഗുണനിലവാരമു ള്ളതാണ്										
I like the usage experience of this product ഈ ഉൽപ്പന്നത്തിന്റെ ഉപയോഗ അനുഭവം ഞാൻ ഇഷ്ടപ്പെടുന്നു										

This package is convenient to use ഈ പാക്കേജ് ഉപയോഗിക്കാൻ എളുപ്പമാണ്										
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9. From the list of following brands, please select the top three brands in terms of its **relevancy** for you.

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്ന്, നിങ്ങളുടെ അനുയോജ്യതയുടെ അടിസ്ഥാനത്തിൽ ആദ്യ മൂന്ന് ബ്രാൻഡുകൾ ദയവായി തിരഞ്ഞെടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

10. From the list of following brands, please select the top three brands in terms of **quality** of the products.

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്നും, ഉൽപ്പന്നങ്ങളുടെ ഗുണനിലവാരം നോക്കുമ്പോൾ ഏറ്റവും മികച്ച മൂന്നു ബ്രാൻഡുകൾ ദയവായി തിരഞ്ഞെടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

11. From the list of following brands, please select the top three brands in terms of **value for money**.

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്നും, പണത്തിനനുസരിച്ചുള്ള ഏറ്റവും മൂല്യമുള്ള മൂന്ന് മികച്ച ബ്രാൻഡുകൾ ദയവായി തിരഞ്ഞെടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

12. From the list of following brands, please select the top three brands in terms of **innovativeness**.

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്നും, നവീനതയുടെ അടിസ്ഥാനത്തിൽ ഏറ്റവും മികച്ച മൂന്ന് ബ്രാൻഡുകൾ ദയവായി തിരഞ്ഞെടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

13. From the list of following brands, please select the top three brands that you are more likely to buy in future.

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്ന്, നിങ്ങൾ ഭാവിയയിൽ വാങ്ങാൻ ഏറ്റവും സാധ്യതയുള്ള മൂന്നു ബ്രാൻഡുകൾ തിരഞ്ഞെടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

14. From the list of following brands, please select the brands for which you are willing to pay more money.

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്ന്, നിങ്ങൾ കൂടുതൽ പണം നൽകാൻ തയ്യാറാവുന്ന മൂന്നു ബ്രാൻഡുകൾ ദയവായി തിരഞ്ഞെടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

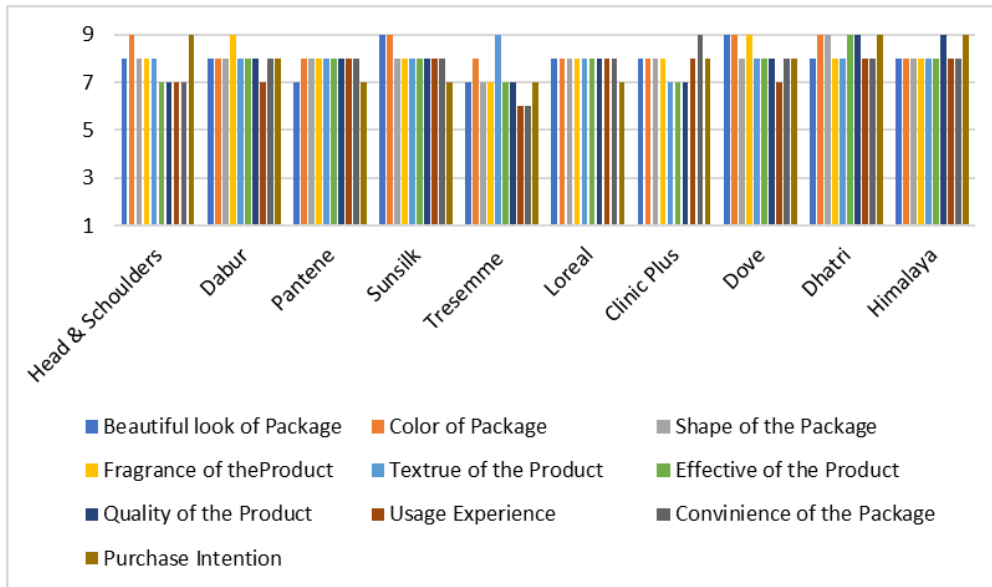


Appendix 8D-I

Data Visualization from the Pilot Test (Chapter 5, Experiment 2)

Data from the pilot test, of users, rating each of the ten shampoo products and nine liquid handwash products, are graphically visualized and presented below.

User 1 Product Experience (Fatima)

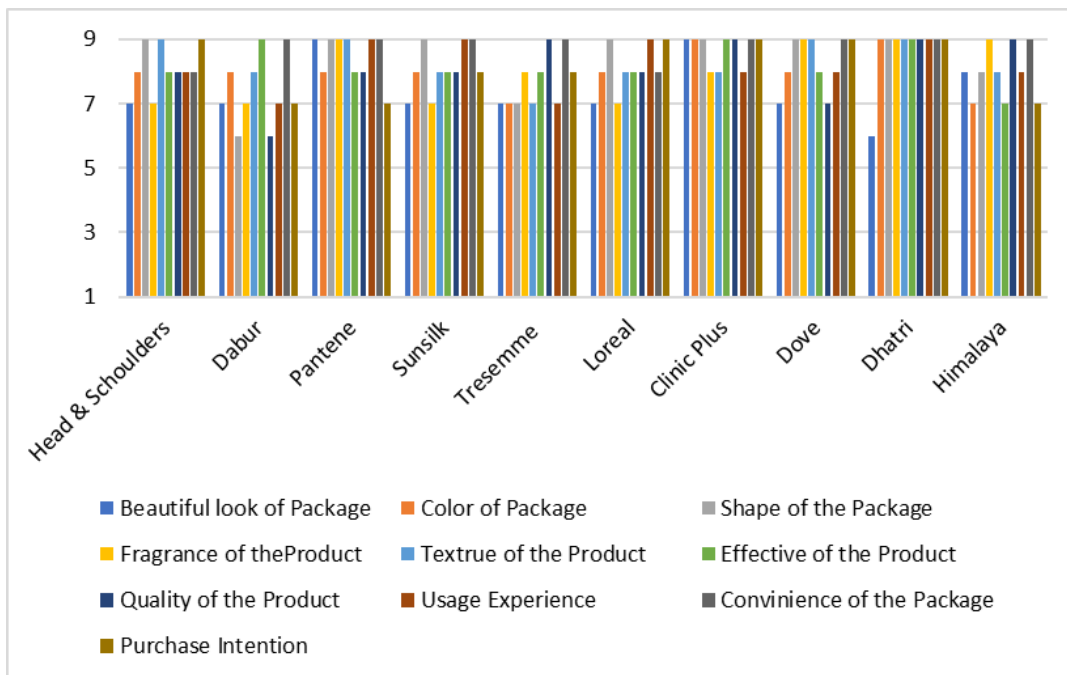


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 1.

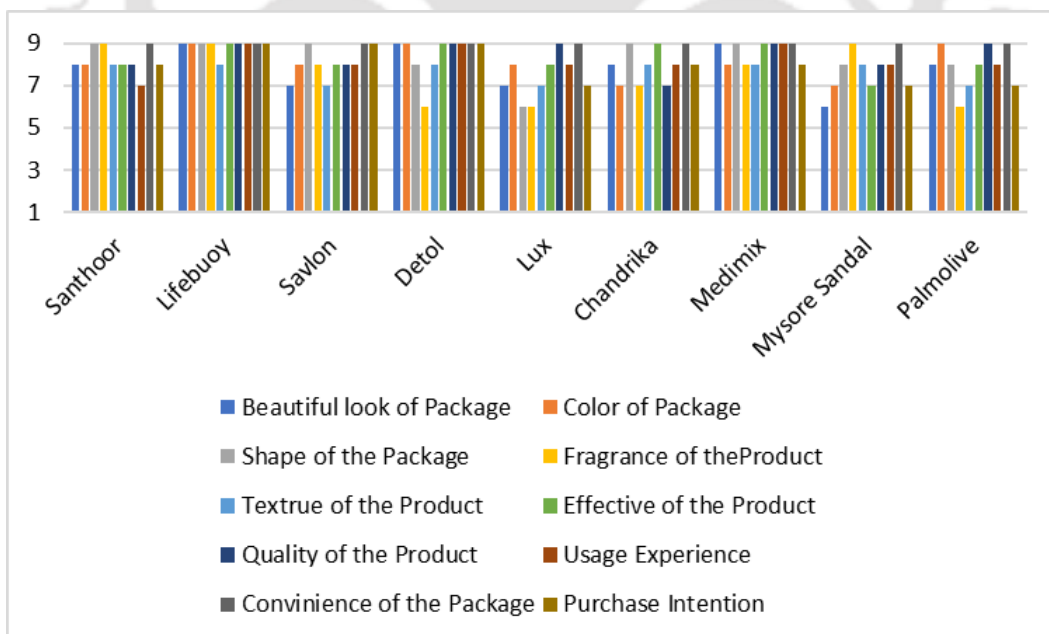


Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 1.

User 2 Product Experience (Nikhil)



Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 2.

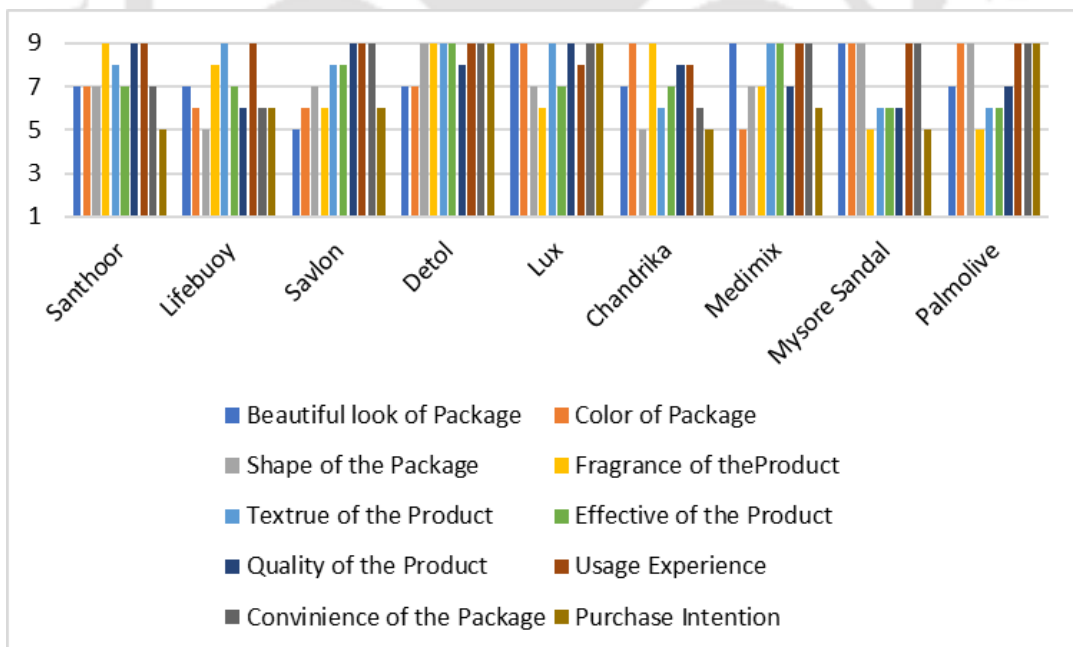


Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 2.

User 3 Product Experience (Neil)

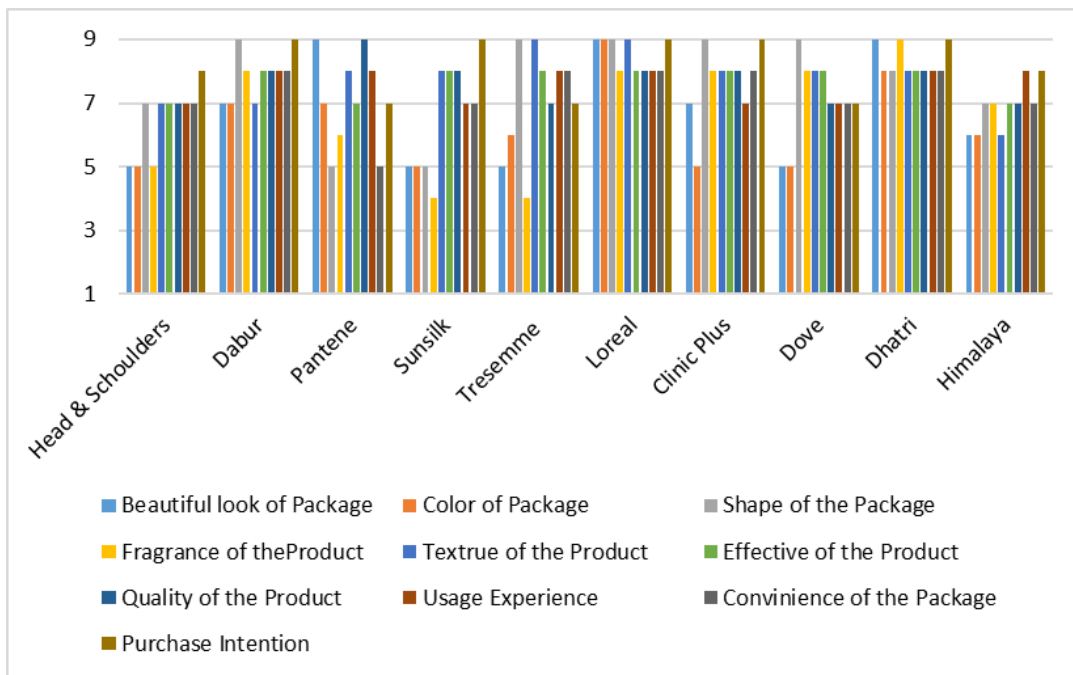


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 3.



Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 3.

User 4 Product Experience (Abhijit)

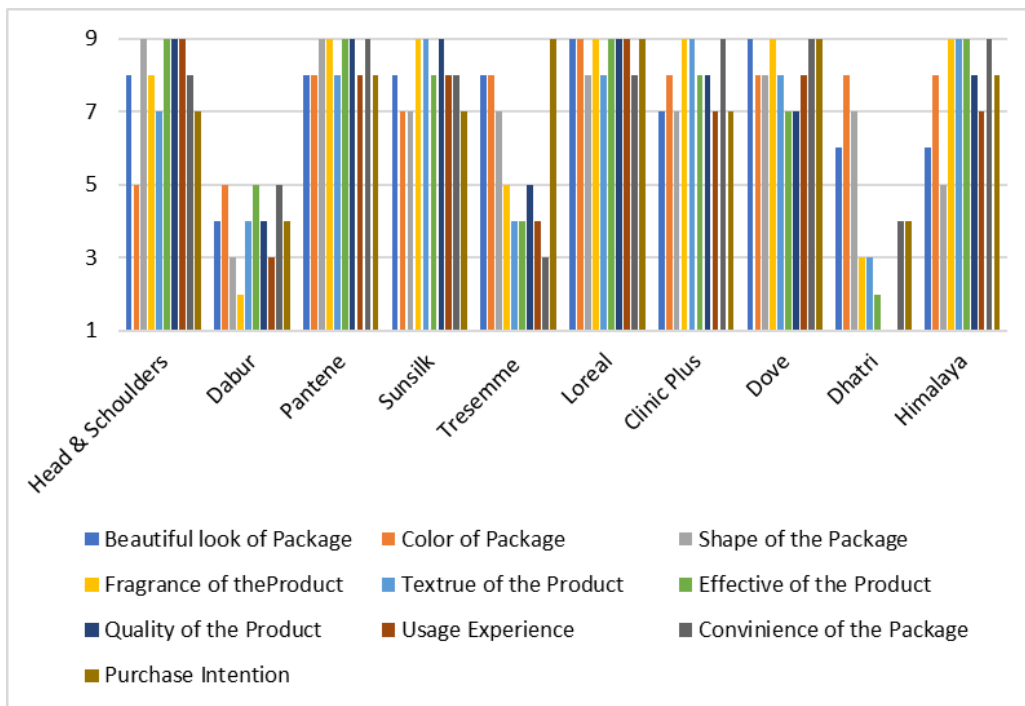


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 4.



Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 4.

User 5 Product Experience (Manu)

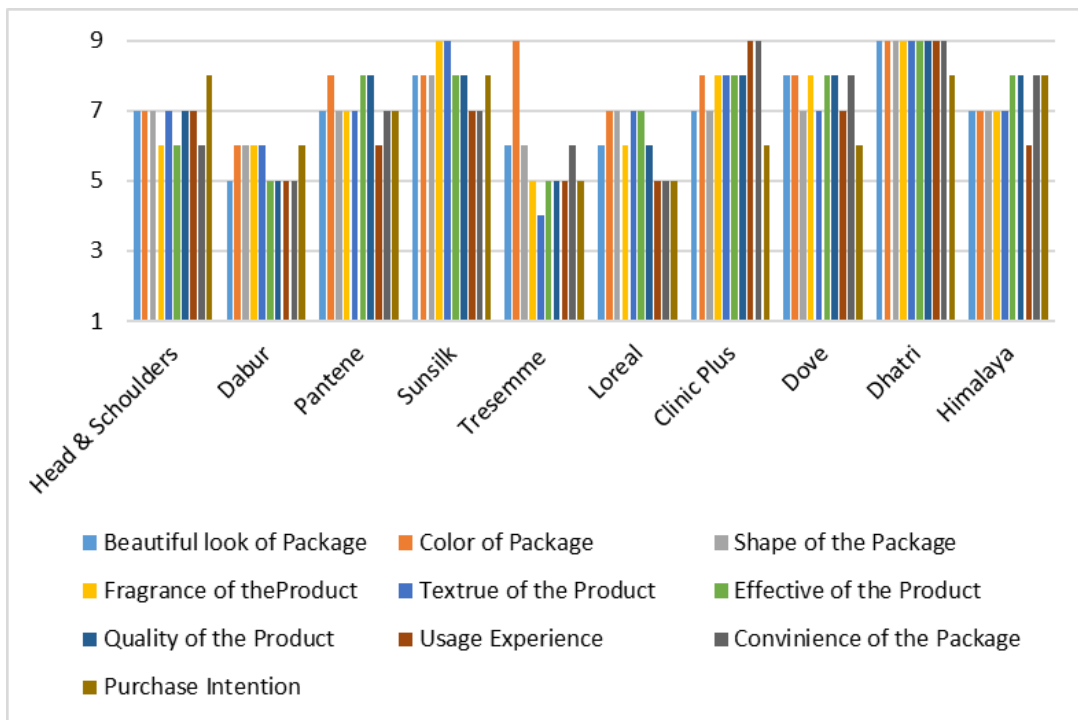


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 5.



Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 5.

User 6 Product Experience (Sanja)

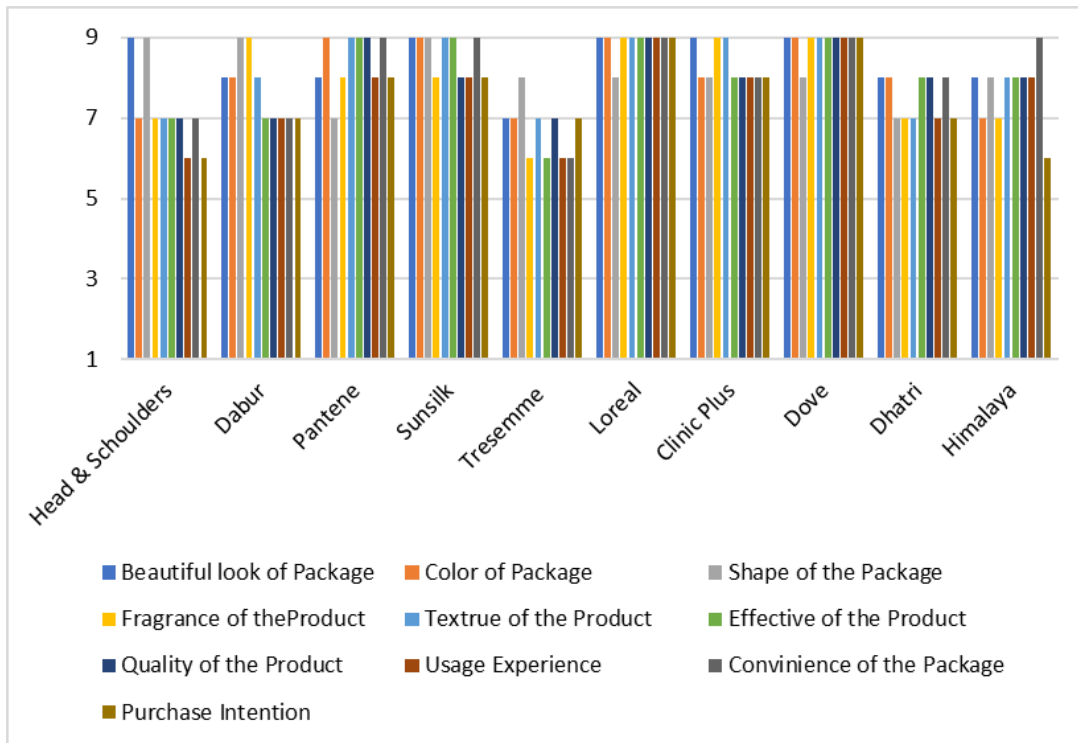


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 6.



Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 6.

User 7 Product Experience (Sreedevi)

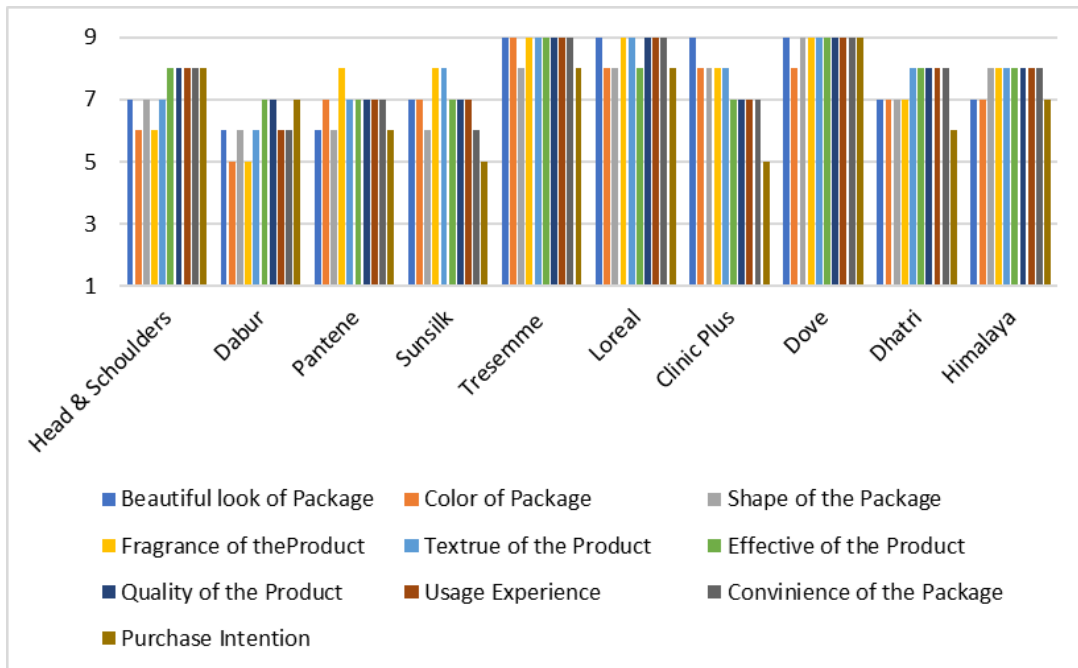


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 7.



Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 7.

User 8 Product Experience (Lincy)

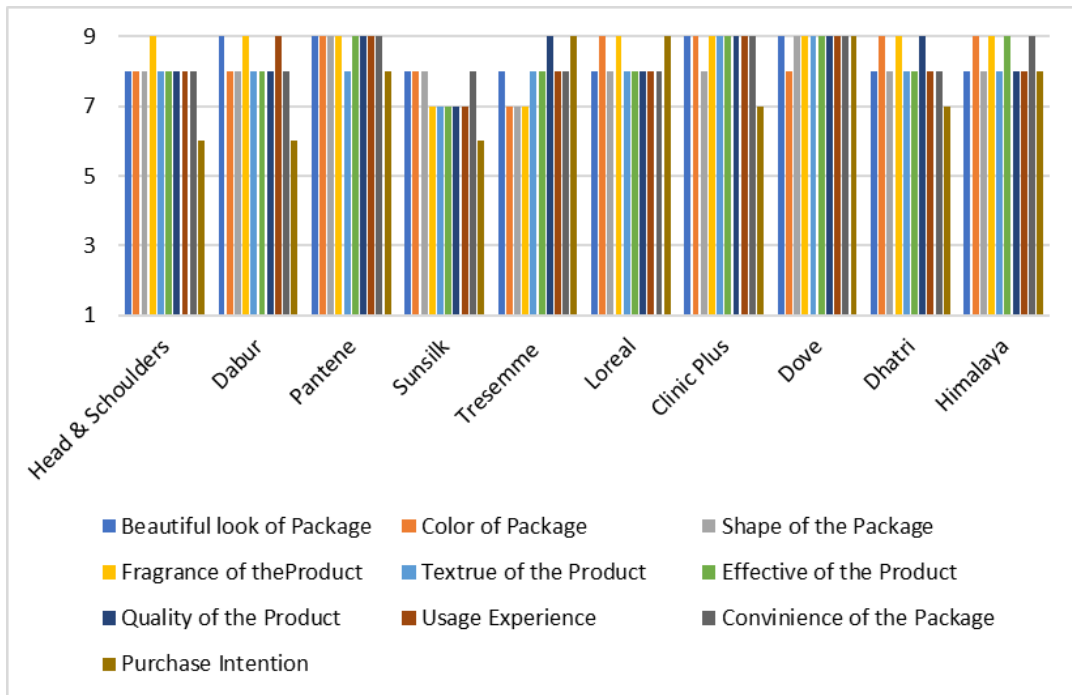


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 8.

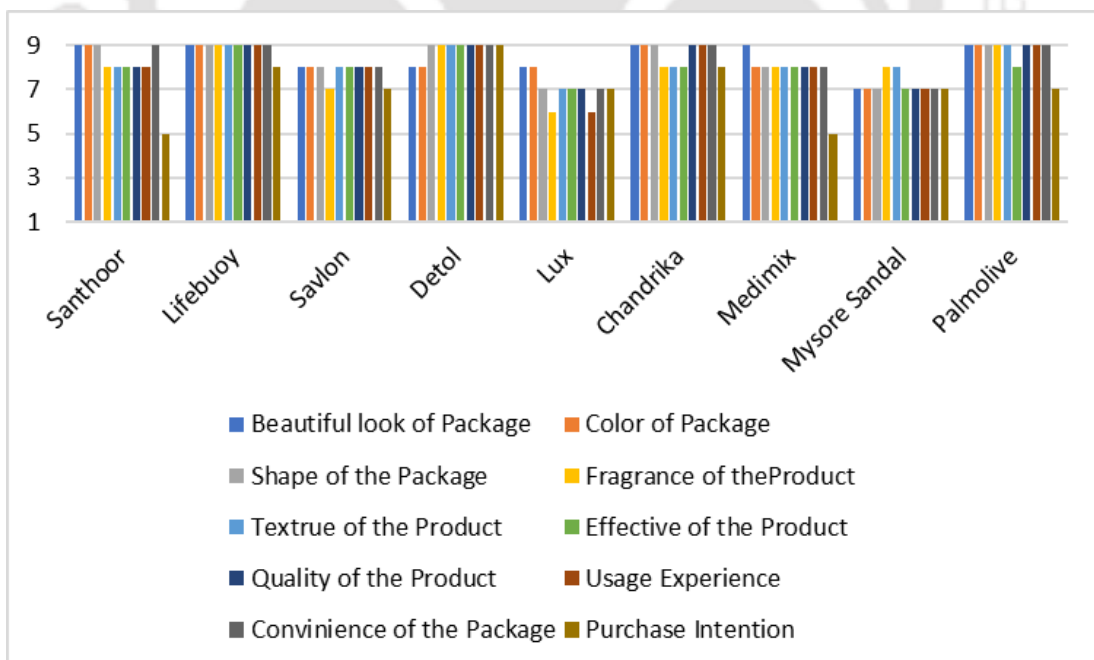


Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 8.

User 9 Product Experience (Archana)

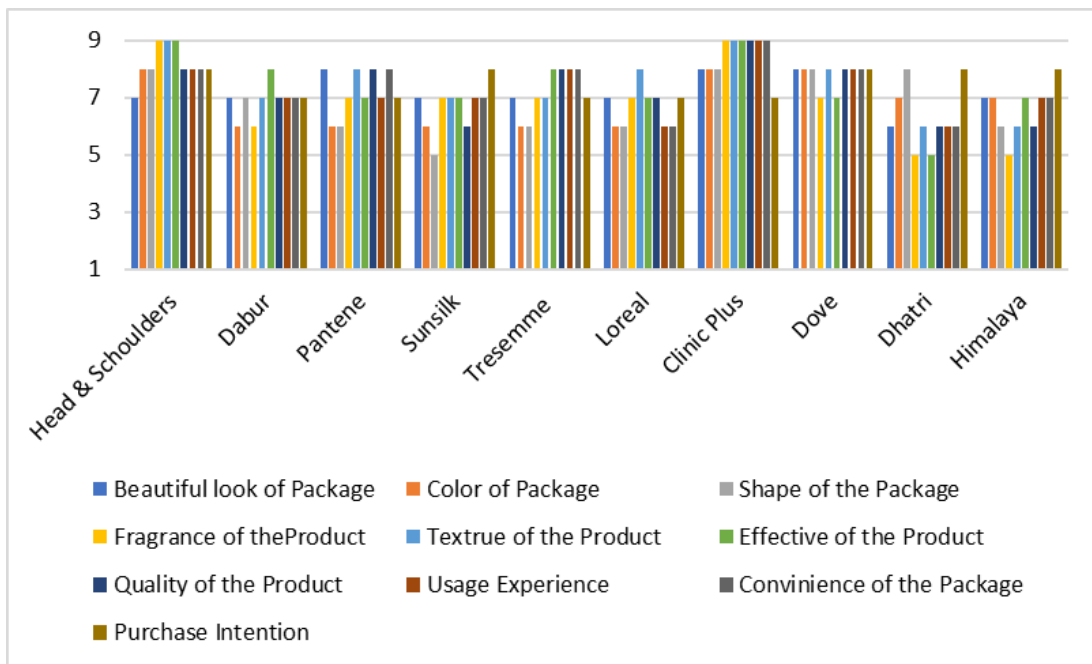


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 9.



Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 9.

User 10 Product Experience (Vishakh)

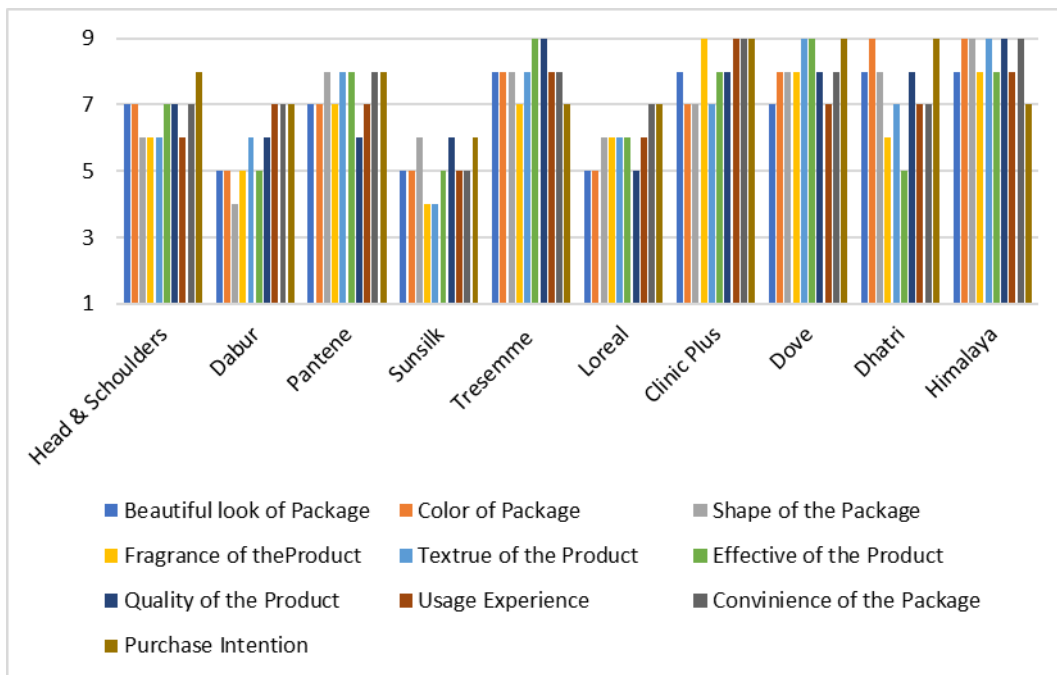


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 10.

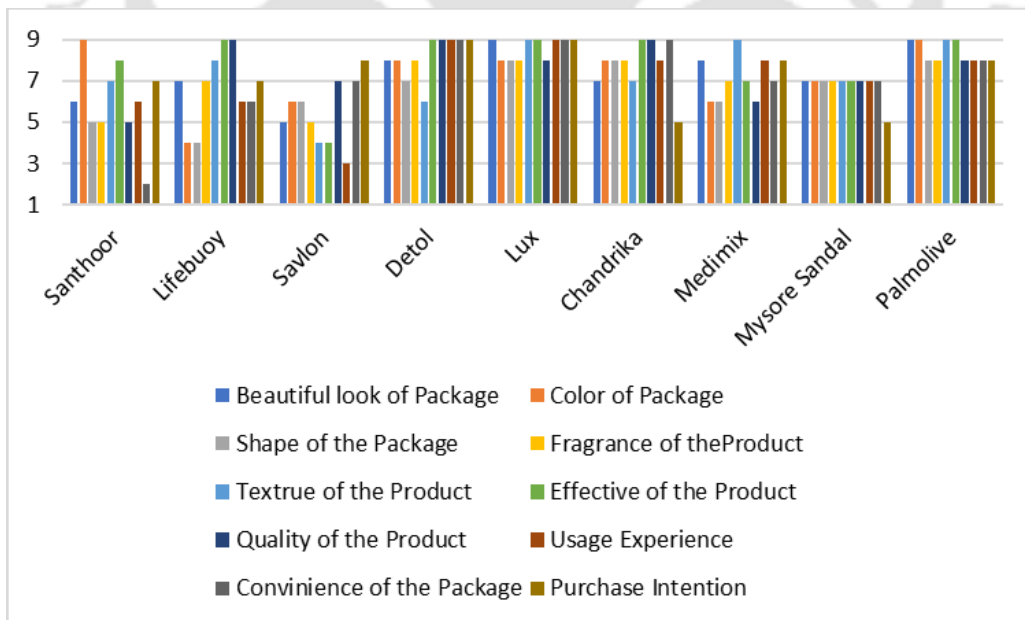


Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 10.

User 11 Product Experience (Akshay)

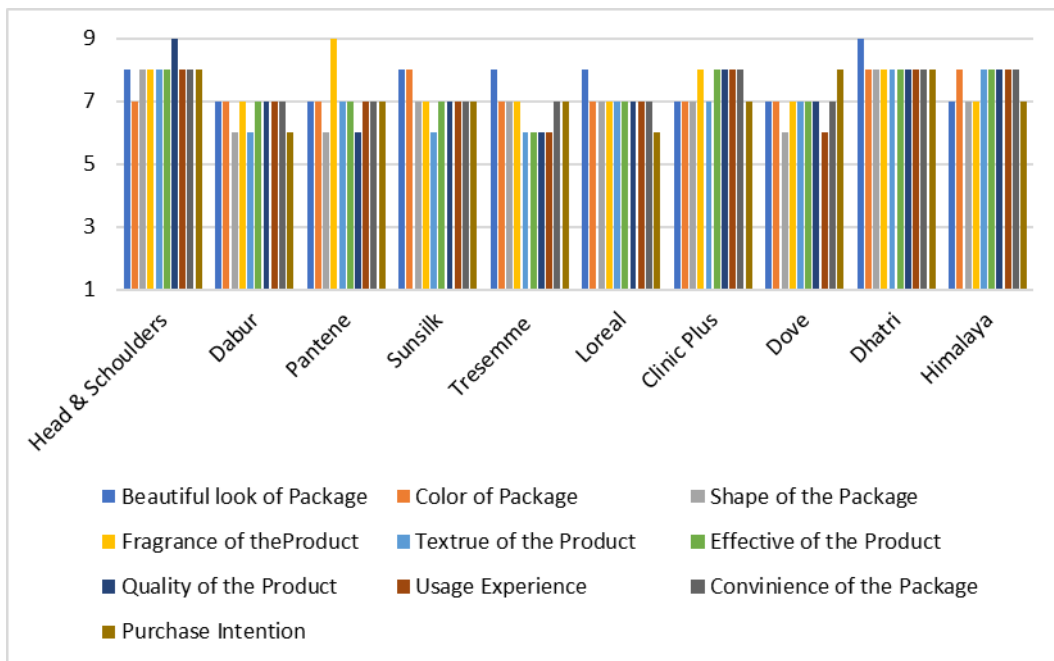


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 11.



Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 11.

User 12 Product Experience (Alderine)

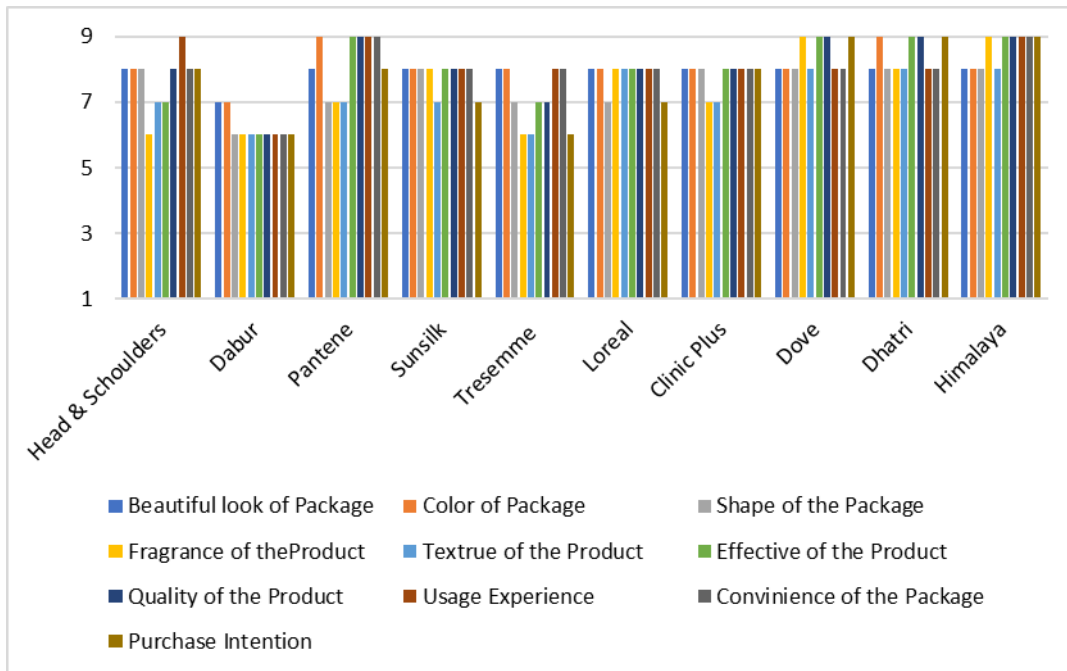


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 12.



Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 12.

User 13 Product Experience (Sreedevi)

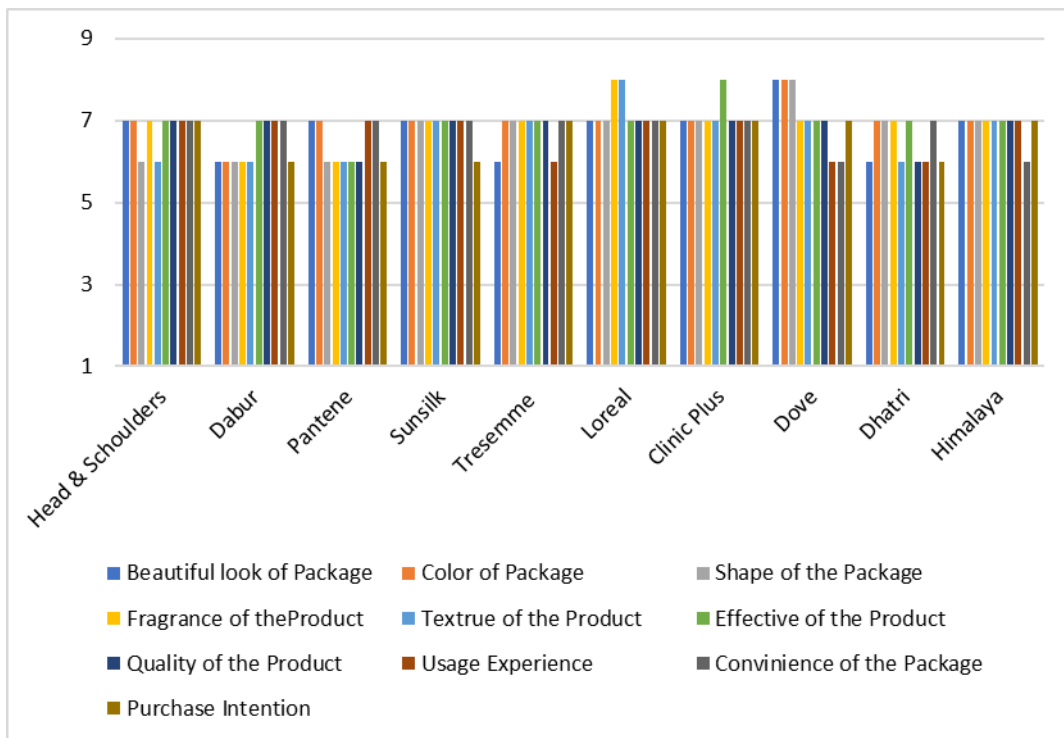


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 13.



Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 13.

User 14 Product Experience (Rohan)

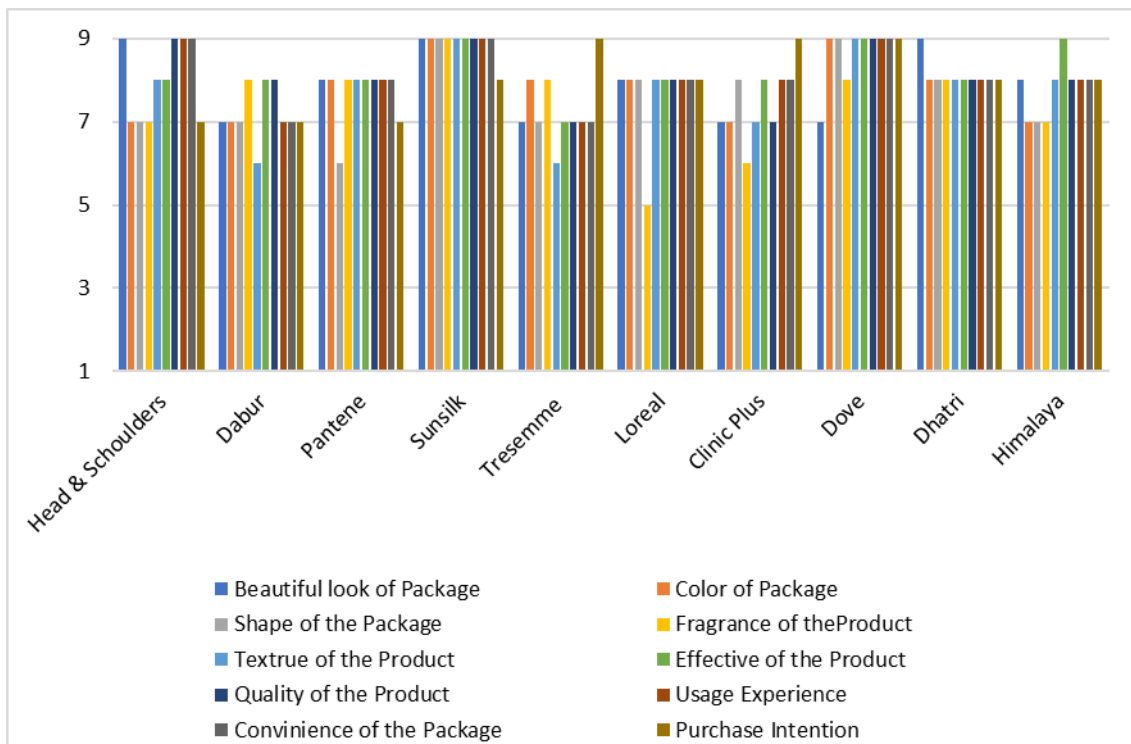


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 14.

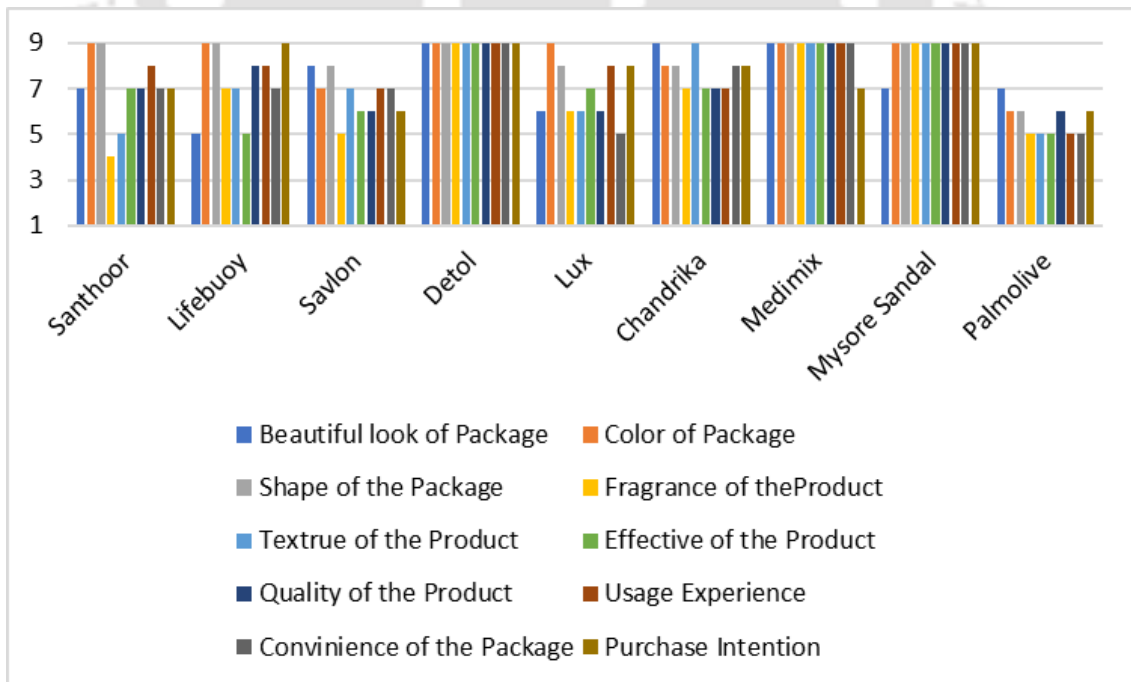


Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 14.

User 15 Product Experience (Ryan)

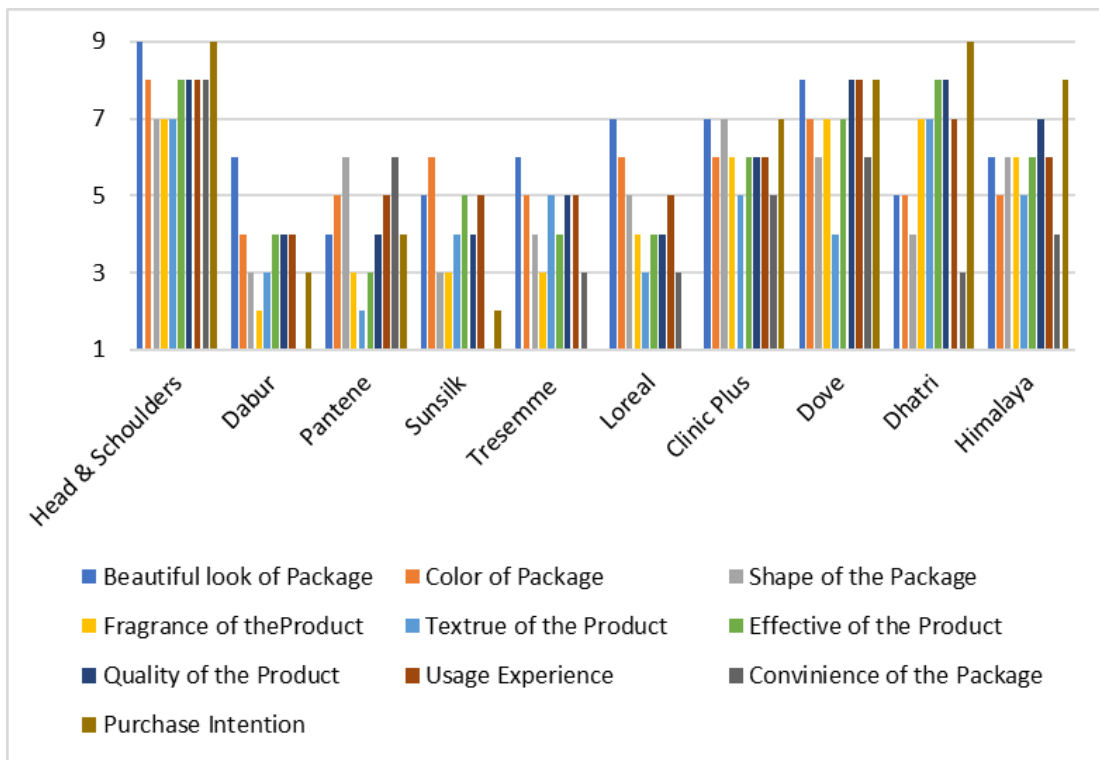


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 15.



Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 15.

User 16 Product Experience (Anandu)

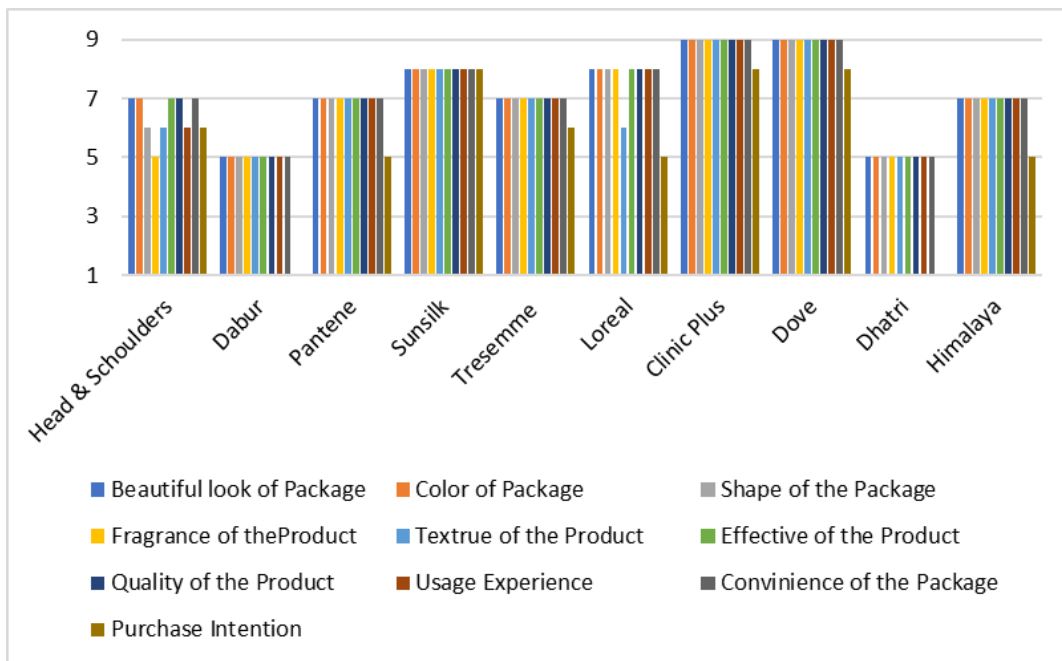


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 16.

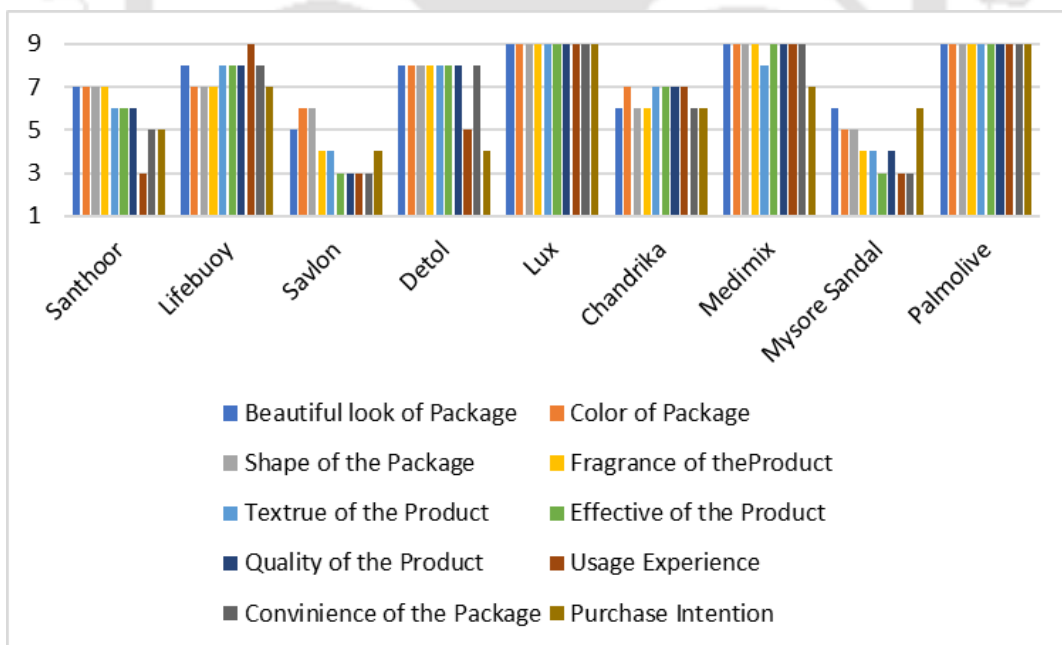


Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 16.

User 17 Product Experience (Shomla)

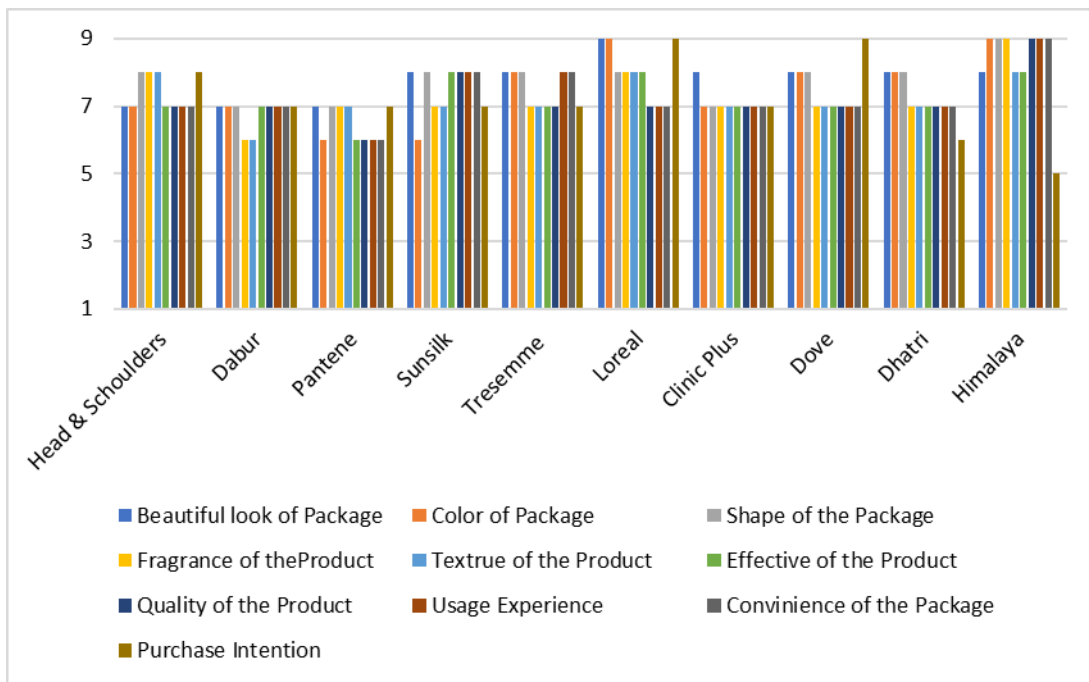


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 17.

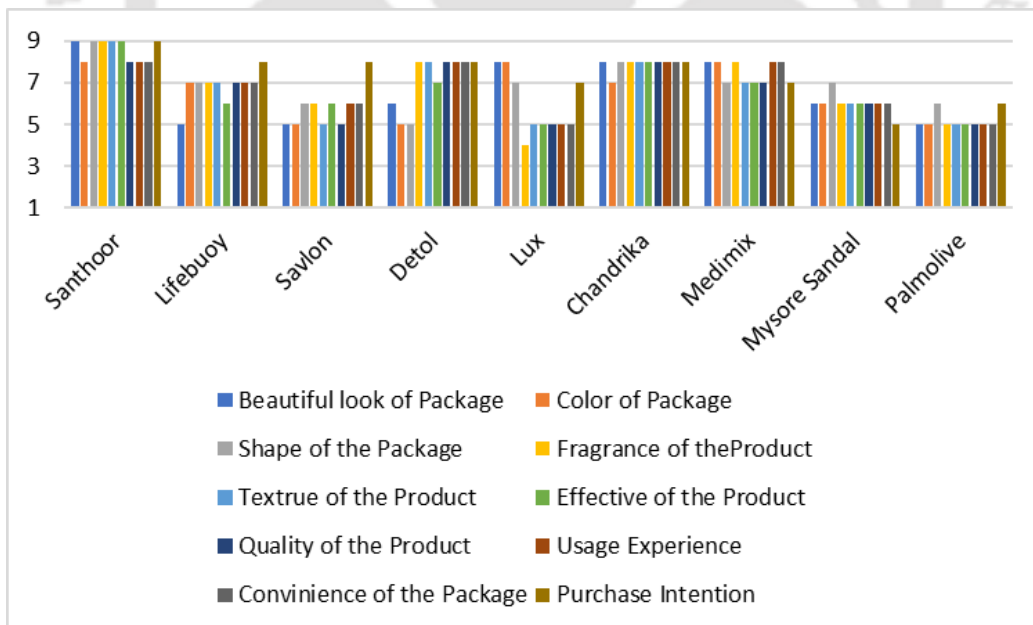


Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 17.

User 18 Product Experience (Raveena)

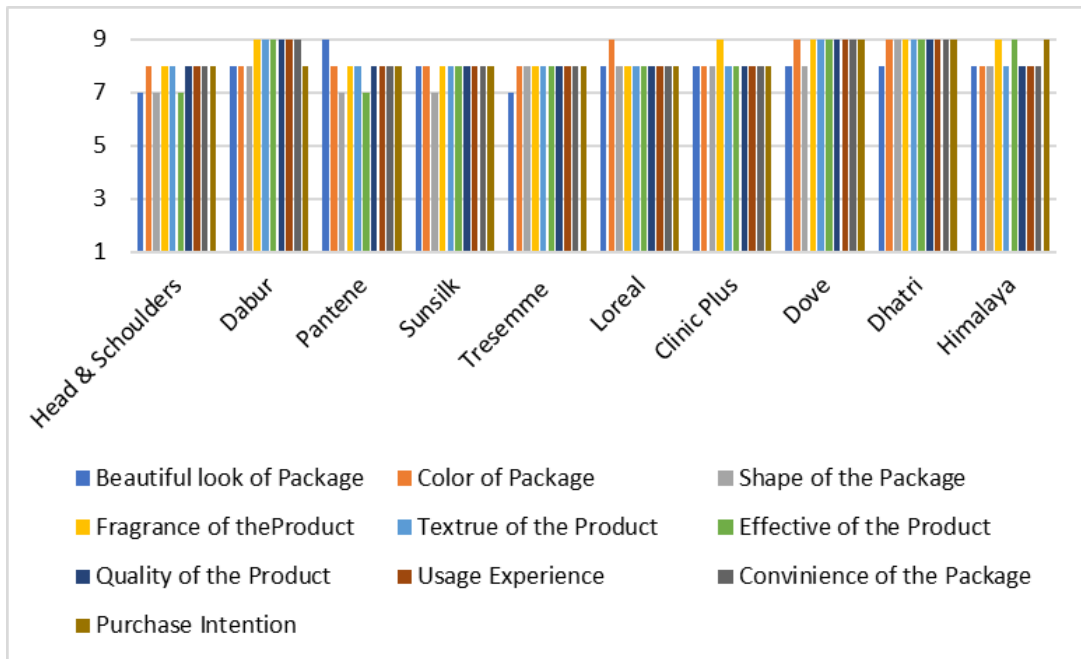


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 18.

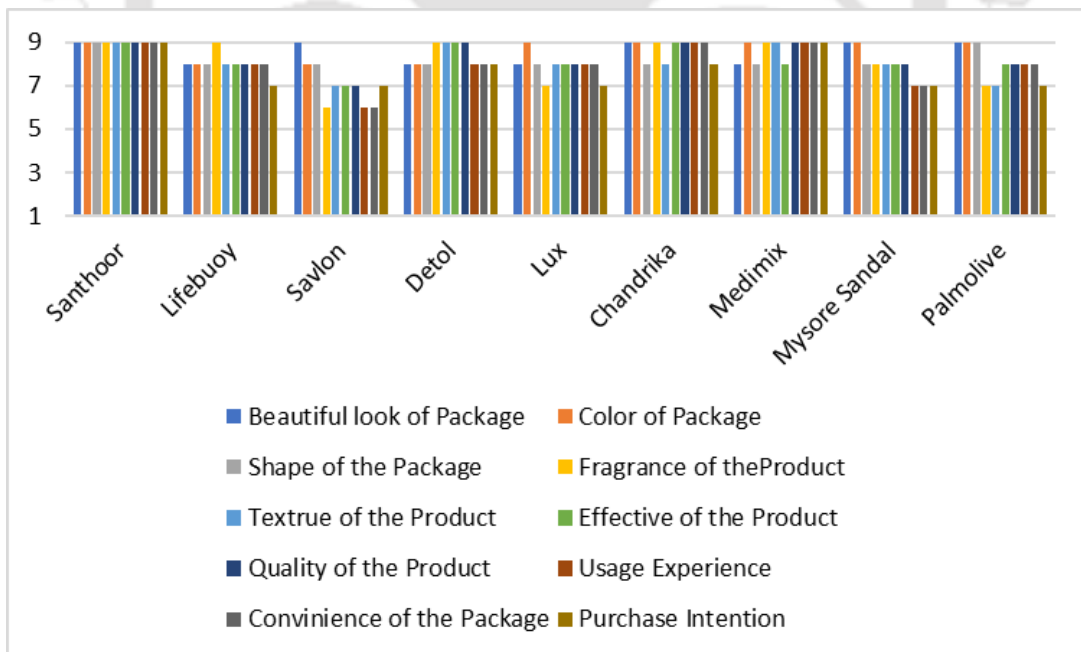


Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 18.

User 19 Product Experience (Rajasree)

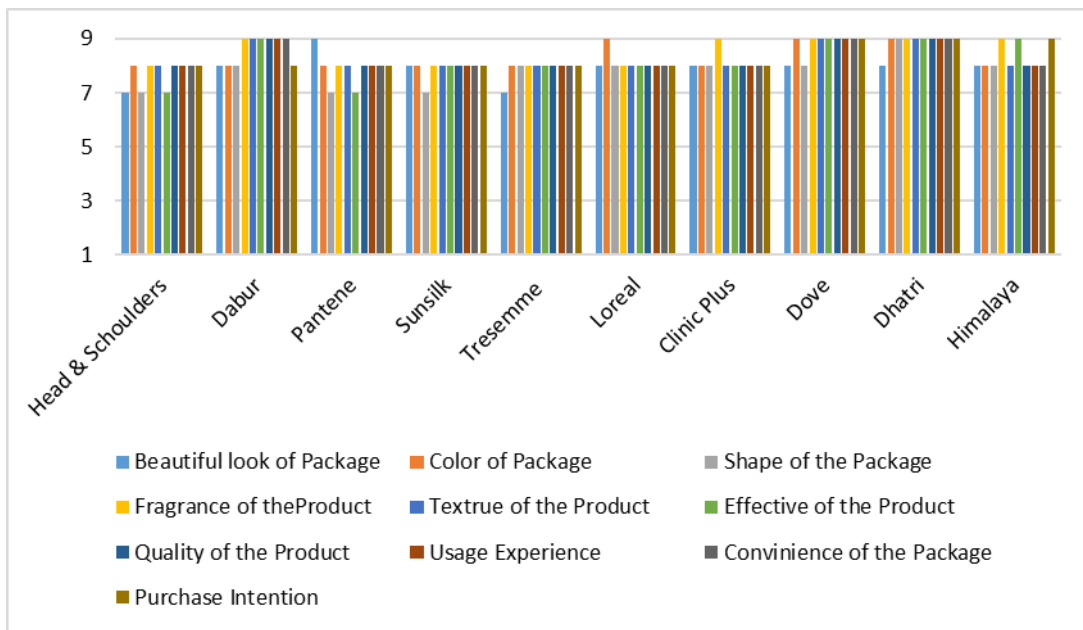


Graphical visualization of data from nine points Likert scale assessment of each of the ten shampoo products by User 19.

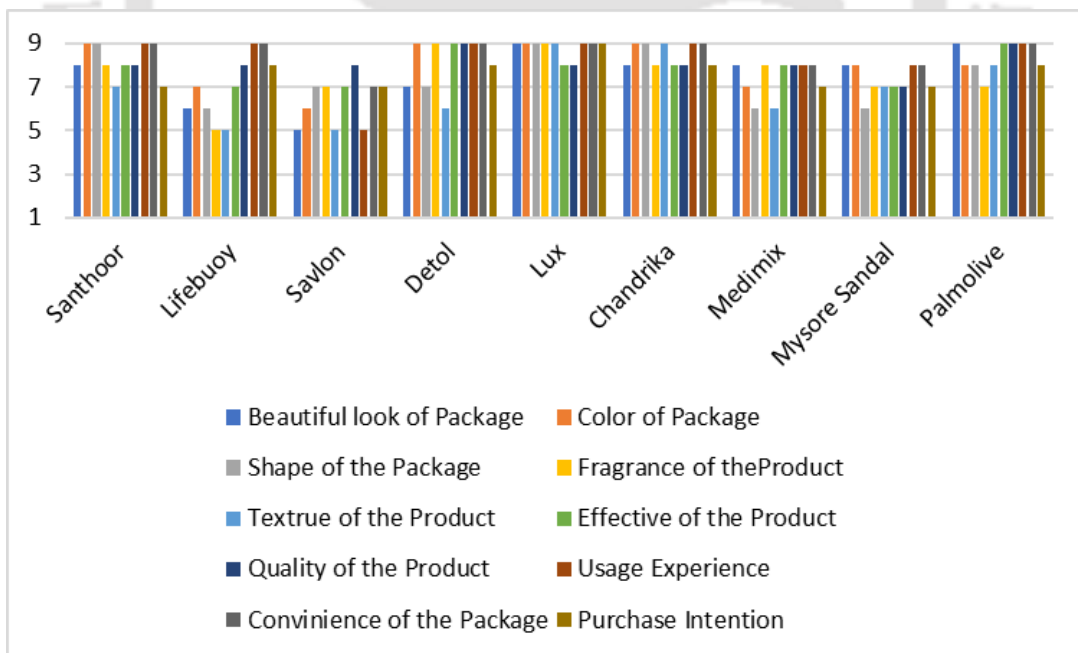


Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 19.

User 20 Product Experience (Asheera)



Graphical visualization of data from nine-points Likert scale assessment of each of the ten shampoo products by User 20.



Graphical visualization of data from nine points Likert scale assessment of each of the nine liquid handwash products by User 20.

Appendix 8E

Questionnaire for the Main Test (Chapter 5, Experiment 2)

Pre-Shopping Questionnaire

Pre-Shopping Questionnaire

1. When you think about the following category of products, which is the first brand that comes to your mind?

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളെക്കുറിച്ച് നിങ്ങൾ ചിന്തിക്കുമ്പോൾ, നിങ്ങളുടെ മനസ്സിലേക്ക് വരുന്ന ആദ്യത്തെ ബ്രാൻഡ് എന്താണ്?

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

2. When you think about the following category of products, which are the various other brands that come to your mind?

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളെക്കുറിച്ച് നിങ്ങൾ ചിന്തിക്കുമ്പോൾ, നിങ്ങളുടെ മനസ്സിലേക്ക് വരുന്ന മറ്റു വിവിധ ബ്രാൻഡുകൾ എന്തൊക്കെയാണ്?

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

3. For the following category of products, what is the brand name of the current product you are using?

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളുടെ വിഭാഗത്തിൽ, നിങ്ങൾ ഉപയോഗിക്കുന്ന നിലവിലെ ഉൽപ്പന്നത്തിന്റെ ബ്രാൻഡ് നാമം എന്താണ്?

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാമ്പു

4. For the following category of products, how satisfied are you with your current product? Rate 9 if you are extremely satisfied, rate one if you are not at all satisfied.

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളെ സംബന്ധിച്ച്, നിങ്ങളുടെ നിലവിലെ ഉൽപ്പന്നത്തിൽ നിങ്ങൾ എത്രത്തോളം സംതൃപ്തരാണ്? നിങ്ങൾ വളരെ സംതൃപ്തനാണെങ്കിൽ സ്കോർ 9 കൊടുക്കുക, നിങ്ങൾ ഒട്ടും തൃപ്തനല്ലെങ്കിൽ സ്കോർ 1 കൊടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാമ്പു

5. For the following category of products, which are the various brands you have purchased in the past?

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളെ സംബന്ധിച്ച്, കഴിഞ്ഞ കാലത്ത് നിങ്ങൾ വാങ്ങിയ വിവിധ ബ്രാൻഡുകൾ എന്തൊക്കെയാണ്?

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

6. For the following category of products, which is the brand you have purchased most often in the past 2 years? (please provide 1 brand).

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളെ സംബന്ധിച്ച്, കഴിഞ്ഞ രണ്ടുവർഷത്തിനിടയിൽ ഏറ്റവും കൂടുതൽ പ്രാവശ്യം വാങ്ങിയ ബ്രാൻഡ് ഏതാണ്? (ദയവായി 1 ബ്രാൻഡ് നൽകുക)

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

Experience Room Questionnaire

1. Based on the product experience you had today, please rate the following statements. Score 9 if you strongly agree to it, score one if you not at all agree to it ഇന്ന് നിങ്ങൾക്ക് ലഭിച്ച ഉൽപന്ന അനുഭവത്തിന്റെ അടിസ്ഥാനത്തിൽ ദയവായി താഴെപ്പറയുന്ന പ്രസ്താവനകൾ വിലയിരുത്തുക. നിങ്ങൾ അതിനെ ശക്തമായി അംഗീകരിക്കുന്ന പക്ഷം സ്കോർ 9 കൊടുക്കുക. നിങ്ങൾ ഒട്ടും അംഗീകരിക്കുന്നില്ലെങ്കിൽ സ്കോർ 1 കൊടുക്കുക.

Liquid Hand Wash	Detol	Chandrika	Shampoo	Dove	Dheedhi	Dhatri
This package is Beautiful ഈ പാക്കേജ് മനോഹരമാണ്			This package is Beautiful ഈ പാക്കേജ് മനോഹരമാണ്			
I like the color of this package ഈ പാക്കേജിന്റെ നിറം എനിക്ക് ഇഷ്ടമാണ്			I like the color of this package ഈ പാക്കേജിന്റെ നിറം എനിക്ക് ഇഷ്ടമാണ്			
I like the shape of this package ഈ പാക്കേജിന്റെ ആകൃതി എനിക്ക് ഇഷ്ടമാണ്			I like the shape of this package ഈ പാക്കേജിന്റെ ആകൃതി എനിക്ക് ഇഷ്ടമാണ്			

<p>I like the Fragrance of this product</p> <p>ഈ ഉല്പന്നത്തിന്റെ സുഗന്ധം എനിക്ക് ഇഷ്ടമാണ്</p>		<p>I like the Fragrance of this product</p> <p>ഈ ഉല്പന്നത്തിന്റെ സുഗന്ധം എനിക്ക് ഇഷ്ടമാണ്</p>		
<p>I like the texture of this product</p> <p>ഈ ഉല്പന്നത്തിന്റെ രൂപഘടന (ടെക്സ്ചർ) എനിക്ക് ഇഷ്ടമാണ്</p>		<p>I like the texture of this product</p> <p>ഈ ഉല്പന്നത്തിന്റെ രൂപഘടന (ടെക്സ്ചർ) എനിക്ക് ഇഷ്ടമാണ്</p>		
<p>This product is very effective</p> <p>ഈ ഉൽപ്പന്നം വളരെ ഫലപ്രദമാണ്</p>		<p>This product is very effective</p> <p>ഈ ഉൽപ്പന്നം വളരെ ഫലപ്രദമാണ്</p>		
<p>This product is of very good quality</p> <p>ഈ ഉൽപ്പന്നം വളരെ നല്ല ഗുണനിലവാരമുള്ളതാണ്</p>		<p>This product is of very good quality</p> <p>ഈ ഉൽപ്പന്നം വളരെ നല്ല ഗുണനിലവാരമുള്ളതാണ്</p>		

<p>I like the user experience of this product</p> <p>ഈ ഉൽപ്പന്നത്തിന്റെ ഉപയോഗ അനുഭവം ഞാൻ ഇഷ്ടപ്പെടുന്നു</p>			<p>I like the user experience of this product</p> <p>ഈ ഉൽപ്പന്നത്തിന്റെ ഉപയോഗ അനുഭവം ഞാൻ ഇഷ്ടപ്പെടുന്നു</p>		
<p>This package is convenient to use</p> <p>ഈ പാക്കേജ് ഉപയോഗിക്കാൻ എളുപ്പമാണ്</p>			<p>This package is convenient to use</p> <p>ഈ പാക്കേജ് ഉപയോഗിക്കാൻ എളുപ്പമാണ്</p>		

2. How much did you like the product experience you had today? (rate nine if you extremely liked it, rate one if you did not like it at all)

നിങ്ങൾ ഇന്നത്തെ ഉൽപ്പന്ന അനുഭവം എത്രത്തോളം ഇഷ്ടപ്പെട്ടു? വളരെ അധികം ഇഷ്ടപ്പെട്ടുവെങ്കിൽ 9 സ്കോർ കൊടുക്കുക, ഒട്ടും ഒട്ടും ഇഷ്ടപ്പെട്ടില്ലെങ്കിൽ 1 സ്കോർ കൊടുക്കുക

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

3. How has your perception of the product you experienced today changed after going through the experience?

നിങ്ങൾ ഇന്ന് അനുഭവിച്ച ഉൽപ്പന്നത്തെക്കുറിച്ച് നിങ്ങളുടെ കാഴ്ചപ്പാടിൽ എങ്ങനെ മാറ്റം വന്നു?

Detol	Chandrika
a) Extremely more favorable അങ്ങേയറ്റം അനുകൂലമായി	a) Extremely more favorable അങ്ങേയറ്റം അനുകൂലമായി
b) Much more favorable വളരെയധികം അനുകൂലമായി	b) Much more favorable വളരെയധികം അനുകൂലമായി
c) Somewhat favorable കുറച്ചൊക്കെ അനുകൂലമായി	c) Somewhat favorable കുറച്ചൊക്കെ അനുകൂലമായി
d) Stayed the same അങ്ങനെ തന്നെ നിൽക്കുന്നു	d) Stayed the same അങ്ങനെ തന്നെ നിൽക്കുന്നു
e) Somewhat less favorable കുറച്ചു പ്രതികൂലമായി	e) Somewhat less favorable കുറച്ചു പ്രതികൂലമായി
f) Much less favorable വളരെയധികം പ്രതികൂലമായി	f) Much less favorable വളരെയധികം പ്രതികൂലമായി
g) Extremely less favorable അങ്ങേയറ്റം പ്രതികൂലമായി	g) Extremely less favorable അങ്ങേയറ്റം പ്രതികൂലമായി

Dove	Dhatri Dheedhi
h) Extremely more favorable അങ്ങേയറ്റം അനുകൂലമായി	h) Extremely more favorable അങ്ങേയറ്റം അനുകൂലമായി
i) Much more favorable വളരെയധികം അനുകൂലമായി	i) Much more favorable വളരെയധികം അനുകൂലമായി
j) Somewhat favorable കുറച്ചൊക്കെ അനുകൂലമായി	j) Somewhat favorable കുറച്ചൊക്കെ അനുകൂലമായി
k) Stayed the same അങ്ങനെ തന്നെ നിൽക്കുന്നു	k) Stayed the same അങ്ങനെ തന്നെ നിൽക്കുന്നു
l) Somewhat less favorable കുറച്ചു പ്രതികൂലമായി	l) Somewhat less favorable കുറച്ചു പ്രതികൂലമായി
m) Much less favorable വളരെയധികം പ്രതികൂലമായി	m) Much less favorable വളരെയധികം പ്രതികൂലമായി
n) Extremely less favorable അങ്ങേയറ്റം പ്രതികൂലമായി	n) Extremely less favorable അങ്ങേയറ്റം പ്രതികൂലമായി

4. How do you compare the user experience of the product you experienced today with the product you are using at home now?

ഇപ്പോൾ നിങ്ങൾ നേരിട്ട് ഉപയോഗിക്കുന്ന ഉൽപ്പന്നവുമായി ഇന്ന് നിങ്ങൾ അനുഭവിച്ച ഉൽപ്പന്നത്തിന്റെ ഉപയോഗ അനുഭവം നിങ്ങൾ എങ്ങനെയാണ് താരതമ്യം ചെയ്യുന്നത്?

Detol	Chandrika
<p>a) The product I experienced today provided a much better experience than my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തേക്കാൾ വളരെ മികച്ച അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>	<p>a) The product I experienced today provided a much better experience than my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തേക്കാൾ വളരെ മികച്ച അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>
<p>b) The product I experienced today provided somewhat better experience than my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലെ ഉൽപ്പന്നത്തേതിനേക്കാൾ അല്പം മെച്ചപ്പെട്ട അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>	<p>b) The product I experienced today provided somewhat better experience than my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലെ ഉൽപ്പന്നത്തേതിനേക്കാൾ അല്പം മെച്ചപ്പെട്ട അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>

<p>c) The product I experienced today provided about the same experience as my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തിന്റെ ഉദ്ദേശം അതേ അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>	<p>c) The product I experienced today provided about the same experience as my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തിന്റെ ഉദ്ദേശം അതേ അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>
<p>d) The product I experienced today provided somewhat poorer experience than my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തേക്കാൾ അല്പം മോശപ്പെട്ട അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>	<p>d) The product I experienced today provided somewhat poorer experience than my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തേക്കാൾ അല്പം മോശപ്പെട്ട അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>

<p>e) The product I experienced today provided much poorer experience than my current product.</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തേക്കാൾ വളരെ മോശപ്പെട്ട അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>	<p>e) The product I experienced today provided much poorer experience than my current product.</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തേക്കാൾ വളരെ മോശപ്പെട്ട അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>
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Dove	Dhatri Dheedhi
<p>a) The product I experienced today provided much better experience than my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തേക്കാൾ വളരെ മികച്ച അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>	<p>a) The product I experienced today provided much better experience than my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തേക്കാൾ വളരെ മികച്ച അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>

<p>b) The product I experienced today provided a somewhat better experience than my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലെ ഉൽപ്പന്നത്തേതിനേക്കാൾ അൽപ്പം മെച്ചപ്പെട്ട അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>	<p>b) The product I experienced today provided a somewhat better experience than my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലെ ഉൽപ്പന്നത്തേതിനേക്കാൾ അൽപ്പം മെച്ചപ്പെട്ട അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>
<p>c) The product I experienced today provided about the same experience as my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തിന്റെ ഉദ്ദേശം അതേ അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>	<p>c) The product I experienced today provided about the same experience as my current product</p> <p>ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തിന്റെ ഉദ്ദേശം അതേ അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>

<p>d) The product I experienced today provided somewhat poorer experience than my current product ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തേക്കാൾ അല്പം മോശപ്പെട്ട അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>	<p>d) The product I experienced today provided somewhat poorer experience than my current product ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തേക്കാൾ അല്പം മോശപ്പെട്ട അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>
<p>e) The product I experienced today provided much poorer experience than my current product. ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തേക്കാൾ വളരെ മോശപ്പെട്ട അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>	<p>e) The product I experienced today provided much poorer experience than my current product. ഇന്ന് ഞാൻ അനുഭവിച്ച ഉൽപ്പന്നം എന്റെ നിലവിലുള്ള ഉൽപ്പന്നത്തേക്കാൾ വളരെ മോശപ്പെട്ട അനുഭവമാണ് നൽകിയിരിക്കുന്നത്</p>

5. On a scale of 1-9, how satisfied are you with the product you experienced today? (rate seven if extremely satisfied, rate one if you are not at all satisfied).

1 മുതൽ 9 വരെയുള്ള സ്കെയിലുകളിൽ, താങ്കൾ ഇന്ന് അനുഭവിച്ച ഉൽപ്പന്നവുമായി എത്രത്തോളം സംതൃപ്തിയുണ്ട്?

വളരെ അധികം സംതൃപ്തിയുണ്ട് എങ്കിൽ 9 സ്കോർ കൊടുക്കുക, ഒട്ടും സംതൃപ്തി ഇല്ലെങ്കിൽ 1 സ്കോർ കൊടുക്കുക

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

6. On a scale of 1-9, how likely is that you would purchase the product you experienced today in the future? (rate 7 if it is extremely likely, rate 1 if it is not all likely).

1 മുതൽ 9 വരെയുള്ള സ്കെയിലുകളിൽ, താങ്കൾ ഇന്ന് അനുഭവിച്ച ഉൽപ്പന്നം താങ്കൾ ഭാവിയയിൽ വാങ്ങുവാൻ എന്തുമാത്രം സാധ്യത ഉണ്ട്? (വളരെ അധികം സാധ്യത ഉണ്ടെങ്കിൽ 9 സ്കോർ കൊടുക്കുക, ഒട്ടും സാധ്യത ഇല്ലെങ്കിൽ 1 സ്കോർ കൊടുക്കുക)

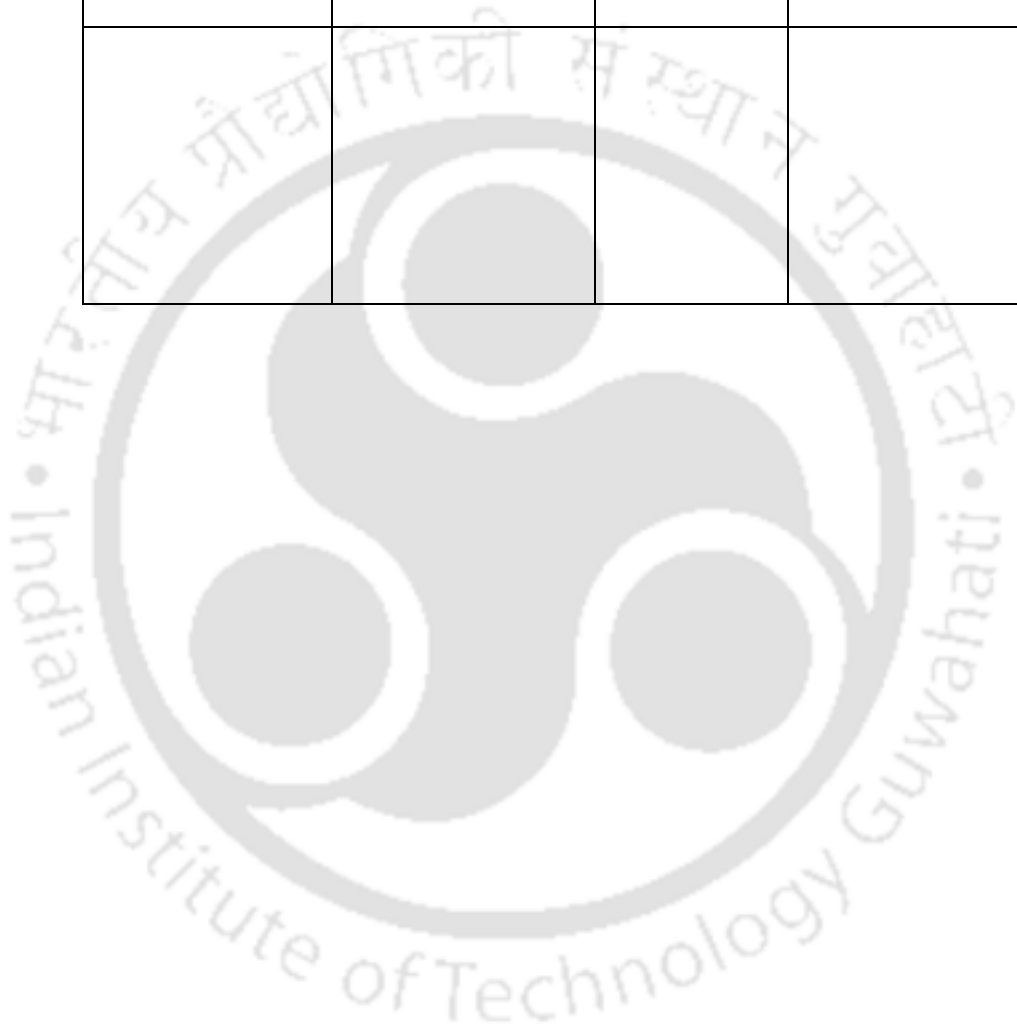
Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

7. On a scale of 1-9, how likely is that you would recommend the product you experienced in the experience room to a friend, colleague, or a family member? (rate 9 if it is extremely likely, rate 1 if it is not all likely)

1 മുതൽ 9 വരെയുള്ള സ്കെയിലുകളിൽ, താങ്കൾ ഇന്ന് അനുഭവിച്ച ഉൽപ്പന്നത്തെ തങ്ങളുടെ സുഹൃത്തിനോ,

സഹപ്രവർത്തകനോ അല്ലെങ്കിൽ താങ്കളുടെ കുടുംബങ്ങൾക്കോ താങ്കൾ ശുപാർശ ചെയ്യുവാൻ എന്തുമാത്രം സാധ്യത ഉണ്ട്? (വളരെ അധികം സാധ്യത ഉണ്ടെങ്കിൽ 9 സ്കോർ കൊടുക്കുക, ഒട്ടും സാധ്യത ഇല്ലെങ്കിൽ 1 സ്കോർ കൊടുക്കുക)

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi



Post-Shopping Questionnaire

1. For the following category of products, what is the brand name of the product you purchased today?

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളുടെ കാര്യത്തിൽ നിങ്ങൾ ഇന്ന് വാങ്ങിയ ഉൽപ്പന്നത്തിന്റെ ബ്രാൻഡ് നാമം എന്താണ്?

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

2. For the following category of products, how important was each of the following parameters in making your **today's purchase decision** (Score 9 if it was extremely important, score 1 if it was not at all important).

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളുടെ കാര്യത്തിൽ, നിങ്ങളുടെ ഇന്നത്തെ വാങ്ങൽ തീരുമാനങ്ങൾ എടുക്കുന്നതിൽ താഴെ പറയുന്ന എല്ലാ ഘടകങ്ങളും എത്ര പ്രധാനമായിരുന്നു? വളരെ പ്രധാനപ്പെട്ടതാണെങ്കിൽ സ്കോർ 9 കൊടുക്കുക, അത് ഒട്ടും പ്രധാനപ്പെട്ടതല്ലെങ്കിൽ സ്കോർ 1 കൊടുക്കുക

Liquid Hand Wash	Shampoo
<p>I have a good user experience of this product</p> <p>എനിക്ക് ഈ ഉൽപ്പന്നത്തിന്റെ നല്ല ഉപയോഗ അനുഭവം ഉണ്ട്</p>	<p>I have a good user experience of this product</p> <p>എനിക്ക് ഈ ഉൽപ്പന്നത്തിന്റെ നല്ല ഉപയോഗ അനുഭവം ഉണ്ട്</p>
<p>This package is beautiful</p> <p>ഈ പാക്കേജ് സുന്ദരമാണ്</p>	<p>This package is beautiful</p> <p>ഈ പാക്കേജ് സുന്ദരമാണ്</p>
<p>I like the color of this package</p> <p>എനിക്ക് ഈ പാക്കേജിന്റെ നിറം ഇഷ്ടമാണ്</p>	<p>I like the color of this package</p> <p>എനിക്ക് ഈ പാക്കേജിന്റെ നിറം ഇഷ്ടമാണ്</p>
<p>I like the shape of this package</p> <p>പാക്കേജിന്റെ ആകൃതി എനിക്ക് ഇഷ്ടമാണ്</p>	<p>I like the shape of this package</p> <p>പാക്കേജിന്റെ ആകൃതി എനിക്ക് ഇഷ്ടമാണ്</p>
<p>I like the fragrance of this product</p> <p>ഈ ഉൽപ്പന്നത്തിന്റെ സുഗന്ധം എനിക്ക് ഇഷ്ടമാണ്</p>	<p>I like the fragrance of this product</p> <p>ഈ ഉൽപ്പന്നത്തിന്റെ സുഗന്ധം എനിക്ക് ഇഷ്ടമാണ്</p>

Because of the brand name ബ്രാൻഡ് നാമം കാരണം	Because of the brand name ബ്രാൻഡ് നാമം കാരണം	
Because I like the advertisements for this product ഈ ഉൽപ്പന്നത്തിന്റെ പരസ്യങ്ങൾ എനിക്ക് ഇഷ്ടമായതുകൊണ്ട്	Because I like the advertisements for this product ഈ ഉൽപ്പന്നത്തിന്റെ പരസ്യങ്ങൾ എനിക്ക് ഇഷ്ടമായതുകൊണ്ട്	
Because I like the celebrity promoting this brand ഈ ബ്രാൻഡ് പ്രോത്സാഹിപ്പിക്കുന്ന സെലിബ്രിറ്റി എനിക്ക് ഇഷ്ടമായതുകൊണ്ട്	Because I like the celebrity promoting this brand ഈ ബ്രാൻഡ് പ്രോത്സാഹിപ്പിക്കുന്ന സെലിബ്രിറ്റി എനിക്ക് ഇഷ്ടമായതുകൊണ്ട്	
I like the texture of the product ഈ ഉല്പന്നത്തിന്റെ രൂപഘടന (ടെക്സ്ചർ) എനിക്ക് ഇഷ്ടമായതുകൊണ്ട്	I like the texture of the product ഈ ഉല്പന്നത്തിന്റെ രൂപഘടന (ടെക്സ്ചർ) എനിക്ക് ഇഷ്ടമായതുകൊണ്ട്	
I know this product is very effective ഈ ഉൽപ്പന്നം വളരെ ഫലപ്രദമാണെന്ന് എനിക്കറിയാം	I know this product is very effective ഈ ഉൽപ്പന്നം വളരെ ഫലപ്രദമാണെന്ന് എനിക്കറിയാം	

<p>I know this product is high quality</p> <p>ഈ ഉൽപന്നം ഉയർന്ന നിലവാരമുള്ളതാണെന്ന് എനിക്കറിയാം</p>	<p>I know this product is high quality</p> <p>ഈ ഉൽപന്നം ഉയർന്ന നിലവാരമുള്ളതാണെന്ന് എനിക്കറിയാം</p>	
<p>This package is very convenient to use.</p> <p>ഈ പാക്കേജ് ഉപയോഗിക്കാൻ വളരെ എളുപ്പമാണ്.</p>	<p>This package is very convenient to use.</p> <p>ഈ പാക്കേജ് ഉപയോഗിക്കാൻ വളരെ എളുപ്പമാണ്.</p>	
<p>This product has good value for money</p> <p>ഈ ഉൽപന്നത്തിന് പണത്തിന് നല്ല മൂല്യം ഉണ്ട്</p>	<p>This product has good value for money</p> <p>ഈ ഉൽപന്നത്തിന് പണത്തിന് നല്ല മൂല്യം ഉണ്ട്</p>	
<p>Someone in my family or my friend recommended this product to me</p> <p>എന്റെ കുടുംബത്തിലെ ആരെങ്കിലും അല്ലെങ്കിൽ എന്റെ സുഹൃത്ത് എനിക്ക് ഈ ഉൽപന്നം ശുപാർശ ചെയ്തു</p>	<p>Someone in my family/my friend recommended this product to me</p> <p>എന്റെ കുടുംബത്തിലെ ആരെങ്കിലും അല്ലെങ്കിൽ എന്റെ സുഹൃത്ത് എനിക്ക് ഈ ഉൽപന്നം ശുപാർശ ചെയ്തു</p>	

Because I like the country where it is made അത് ഉണ്ടാക്കുന്ന രാജ്യം എനിക്ക് ഇഷ്ടമായതുകൊണ്ട്	Because I like the country where it is made അത് ഉണ്ടാക്കുന്ന രാജ്യം എനിക്ക് ഇഷ്ടമായതുകൊണ്ട്
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3. When you think about the following category of products, which is the first brand that comes to your mind?

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളെക്കുറിച്ച് നിങ്ങൾ ചിന്തിക്കുമ്പോൾ, നിങ്ങളുടെ മനസ്സിലേക്ക് വരുന്ന ആദ്യത്തെ ബ്രാൻഡ് എന്താണ്?

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാമ്പൂ
(Blank space for response)	(Blank space for response)

8. When you think about the following category of products, which are the various other brands that come to your mind?

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളെക്കുറിച്ച് നിങ്ങൾ ചിന്തിക്കുമ്പോൾ, നിങ്ങളുടെ മനസ്സിലേക്ക് വരുന്ന മറ്റു വിവിധ ബ്രാൻഡുകൾ എന്തൊക്കെയാണ്?

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

9. For the following category of products, what are the various brands you saw at the store today?

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങൾക്കായി, ഇന്നത്തെ സ്റ്റോറിൽ നിങ്ങൾ കണ്ട വ്യത്യസ്ത ബ്രാൻഡുകൾ എന്തൊക്കെയാണ്?

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

10. From the list of following brands, please select all the brands you have seen at the sore.

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്ന്, താങ്കൾ സ്റ്റോറിൽ കണ്ട എല്ലാ ബ്രാൻഡുകളും ദയവായി തിരഞ്ഞെടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)		Shampoo ഷാംപൂ	
Savlon		Himalaya	
Santoor		Dove	
Palmolive		Clinic Plus	
Ayush		Tresemme	
Lifebuoy		Vatika	
Detol		Head & Shoulders	
Medimix		Pantene	
Mysore Sandal		Sunsilk	
Dove		Loreal	
Lux		Clear	
Chandrika		Dhatri Dheedhi	
		Pure Derm	
		Chik	
		Dhatri Chembarathi Thaali	
		Meera	
		VLCC Ayurveda	

11. From the list of following brands, please select the top three brands in terms of its **relevancy** for you.

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്ന്, നിങ്ങളുടെ അനുയോജ്യതയുടെ അടിസ്ഥാനത്തിൽ ആദ്യ മൂന്ന് ബ്രാൻഡുകൾ ദയവായി തിരഞ്ഞെടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

12. From the list of following brands, please select the top three brands in terms of **quality** of the products.

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്നും, ഉൽപ്പന്നങ്ങളുടെ ഗുണനിലവാരം നോക്കുമ്പോൾ ഏറ്റവും മികച്ച മൂന്നു ബ്രാൻഡുകൾ ദയവായി തിരഞ്ഞെടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

13. From the list of following brands, please select the top three brands in terms of **value for money**.

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്നും, പണത്തിനനുസരിച്ചുള്ള ഏറ്റവും മൂല്യമുള്ള മൂന്ന് മികച്ച ബ്രാൻഡുകൾ ദയവായി തിരഞ്ഞെടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

14. From the list of following brands, please select the top three brands in terms of **innovativeness**.

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്നും, നവീനതയുടെ അടിസ്ഥാനത്തിൽ ഏറ്റവും മികച്ച മൂന്ന് ബ്രാൻഡുകൾ ദയവായി തിരഞ്ഞെടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

15. From the list of following brands, please select the top three brands that you are more likely to buy in future.

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്ന്, നിങ്ങൾ ഭാവിയ്ക്കൽ വാങ്ങാൻ ഏറ്റവും സാധ്യതയുള്ള മൂന്നു ബ്രാൻഡുകൾ തിരഞ്ഞെടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

16. From the list of following brands, please select the brands for which you are willing to pay more money (assume same package size for all brands).

താഴെപ്പറയുന്ന ബ്രാൻഡുകളുടെ പട്ടികയിൽ നിന്ന്, നിങ്ങൾ കൂടുതൽ പണം നൽകാൻ തയ്യാറാവുന്ന മൂന്നു ബ്രാൻഡുകൾ ദയവായി തിരഞ്ഞെടുക്കുക (എല്ലാ ബ്രാൻഡുകളും ഒരേ പാക്കേജ് വലുപ്പം ആണെന്ന് വിചാരിക്കുക)

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

17. For the following category of products, how satisfied are you with the purchase decision you made today? (Score 9 if you are Extremely satisfied, score 1 if you are not at all satisfied).

താഴെപ്പറയുന്ന ഉൽപ്പന്നങ്ങളുടെ കാര്യത്തിൽ, ഇന്ന് നിങ്ങൾ നടത്തിയ വാങ്ങൽ തീരുമാനത്തെക്കുറിച്ചു നിങ്ങൾക്ക് എന്തുമാത്രം സംതൃപ്തി ഉണ്ട്? നിങ്ങൾ തികച്ചും സംതൃപ്തനാണെങ്കിൽ സ്കോർ 9 കൊടുക്കുക, നിങ്ങൾ ഒട്ടും സംതൃപ്തനല്ലെങ്കിൽ സ്കോർ 1 കൊടുക്കുക

Liquid Hand Wash കൈ കഴുകുന്ന ദ്രാവകം (ലിക്വിഡ് ഹാൻഡ് വാഷ്)	Shampoo ഷാംപൂ

18. How would you describe the overall shopping experience you had today?

ഇന്നത്തെ ഷോപ്പിംഗ് അനുഭവം നിങ്ങൾ എങ്ങനെ വിശദീകരിക്കും?

Liquid Hand Wash	Shampoo
a) I liked it much more than my typical shopping എന്റെ സാധാരണ ഷോപ്പിംഗിനെക്കാൾ വളരെ കൂടുതൽ ഇഷ്ടപ്പെട്ടു	a) I liked it much more than my typical shopping എന്റെ സാധാരണ ഷോപ്പിംഗിനെക്കാൾ വളരെ കൂടുതൽ ഇഷ്ടപ്പെട്ടു

<p>b) Liked it slightly more than my typical shopping</p> <p>എന്റെ സാധാരണ ഷോപ്പിംഗിനെക്കാൾ അല്പം കൂടുതൽ ഇഷ്ടപ്പെട്ടു</p>	<p>b) Liked it slightly more than my typical shopping</p> <p>എന്റെ സാധാരണ ഷോപ്പിംഗിനെക്കാൾ അല്പം കൂടുതൽ ഇഷ്ടപ്പെട്ടു</p>
<p>c) About the same as my typical shopping experience</p> <p>എന്റെ സാധാരണ ഷോപ്പിംഗ് അനുഭവം പോലെ തന്നെ</p>	<p>c) About the same as my typical shopping experience</p> <p>എന്റെ സാധാരണ ഷോപ്പിംഗ് അനുഭവം പോലെ തന്നെ</p>
<p>d) Liked it slightly lesser than my typical shopping</p> <p>എന്റെ സാധാരണ ഷോപ്പിംഗിനെക്കാൾ അല്പം കുറവ് ഇഷ്ടപ്പെട്ടു</p>	<p>d) Liked it slightly lesser than my typical shopping</p> <p>എന്റെ സാധാരണ ഷോപ്പിംഗിനെക്കാൾ അല്പം കുറവ് ഇഷ്ടപ്പെട്ടു</p>
<p>e) Liked it much lesser than my typical shopping experience</p> <p>എന്റെ സാധാരണ ഷോപ്പിംഗിനെക്കാൾ വളരെ കുറവ് ഇഷ്ടപ്പെട്ടു</p>	<p>e) Liked it much lesser than my typical shopping experience</p> <p>എന്റെ സാധാരണ ഷോപ്പിംഗിനെക്കാൾ വളരെ കുറവ് ഇഷ്ടപ്പെട്ടു</p>

Based on everything you know about the following brands, please rate the following statements on a scale of 1 to 9. Score 9 if you strongly agree to it, score 1 if you not at all agree to it.

താഴെ പറയുന്ന ബ്രാൻഡുകളെക്കുറിച്ച് നിങ്ങൾക്കറിയാവുന്ന എല്ലാ വിവരങ്ങളും അനുസരിച്ച്, താഴെ പറയുന്ന പ്രസ്താവനകൾ 1 മുതൽ 9 വരെയുള്ള സ്കെയിലുകളിൽ ദയവായി റേറ്റ് ചെയ്യുക. നിങ്ങൾ അതിനെ ശക്തമായി അംഗീകരിക്കുന്ന പക്ഷം സ്കോർ 9 കൊടുക്കുക. നിങ്ങൾ ഒട്ടും അംഗീകരിക്കുന്നില്ല എങ്കിൽ സ്കോർ 1 കൊടുക്കുക

19. This brand is very different from other brands in its category.

(ഈ ബ്രാൻഡ് അതിന്റെ വിഭാഗത്തിലെ മറ്റ് ബ്രാൻഡുകളിൽ നിന്ന് വളരെ വ്യത്യസ്തമാണ്)

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

20. I have a clear image of the type of person who would use this brand

(ഈ ബ്രാൻഡ് ഉപയോഗിക്കുന്ന വ്യക്തിയുടെ ഒരു വ്യക്തമായ ചിത്രം എനിക്കുണ്ട്)

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

21. This is an interesting brand.

(ഇതൊരു രസകരമായ ബ്രാൻഡാണ്)

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

22. I can recognize the brand logo of this brand.

(ഈ ബ്രാൻഡിന്റെ ബ്രാൻഡ് ലോഗോ എനിക്ക് തിരിച്ചറിയാൻ കഴിയും)

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

23. I like this brand (എനിക്ക് ഈ ബ്രാൻഡ് ഇഷ്ടമാണ്)

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

24. Products from this brand is as good as or better than my current product.

ഈ ബ്രാൻഡിന്റെ ഉൽപ്പന്നങ്ങൾ എന്റെ നിലവിലെ ഉൽപ്പന്നത്തെ പോലെതന്നെയോ അതിനേക്കാളുമോ മികച്ചതോ ഉത്തമമോ ആണ്

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

25. Products from this brand are very reliable.

ഈ ബ്രാൻഡിലുള്ള ഉൽപ്പന്നങ്ങൾ വളരെ വിശ്വസനീയമാണ്

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

26. I consider myself a fan of this brand.

ഞാൻ ഈ ബ്രാൻഡിന്റെ ഒരു ആരാധകനാണെന്ന് തോന്നുന്നു

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

27. Even if someone offers me products from other brands, I would still buy this brand\

ആരെങ്കിലും മറ്റു ബ്രാൻഡിലുള്ള ഉൽപ്പന്നങ്ങൾ എനിക്ക് നൽകിയാലും ഞാൻ വീണ്ടും ഈ ബ്രാൻഡ് തന്നെ വാങ്ങും

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

28. I trust the quality of products from this brand.

ഈ ബ്രാൻഡിലുള്ള ഉൽപ്പന്നങ്ങളുടെ ഗുണനിലവാരത്തെ ഞാൻ വിശ്വസിക്കുന്നു

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

29. Products from this brand would be of very good quality.

ഈ ബ്രാൻഡിലുള്ള ഉൽപ്പന്നങ്ങൾ വളരെ നല്ല ഗുണനിലവാരമുള്ളതായിരിക്കും

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

30. Products from this brand offer excellent features.

ഈ ബ്രാൻഡിലുള്ള ഉൽപ്പന്നങ്ങൾ മികച്ച സവിശേഷതകളാണ് നൽകുന്നത്

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

31. Some characteristics of this brand come to my mind quickly

ഈ ബ്രാൻഡിന്റെ ചില പ്രത്യേകതകൾ പെട്ടെന്ന് എന്റെ മനസ്സിലേക്ക് വരുന്നു

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

32. I can recognize this brand among other brands.

എനിക്ക് ഈ ബ്രാൻഡ് മറ്റ് ബ്രാൻഡുകളുടെ ഇടയിൽനിന്നു തിരിച്ചറിയാൻ കഴിയും

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

33. I am familiar with this brand

ഈ ബ്രാൻഡിനെ എനിക്ക് വളരെ പരിചയമുണ്ട്

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

34. This brand has a unique brand image compared to other brands.

മറ്റ് ബ്രാൻഡുകളുമായി താരതമ്യം ചെയ്യുമ്പോൾ ഈ ബ്രാൻഡിന് ഒരു സവിശേഷമായ ബ്രാൻഡ് ഇമേജ് ഉണ്ട്

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

35. I respect and admire people who use this brand

ഈ ബ്രാൻഡ് ഉപയോഗിക്കുന്ന ആളുകളെ ഞാൻ ആദരിക്കുകയും ബഹുമാനിക്കുകയും ചെയ്യുന്നു

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

36. I like the brand image of this brand.

ഈ ബ്രാൻഡിന്റെ ബ്രാൻഡ് ഇമേജ് ഞാൻ ഇഷ്ടപ്പെടുന്നു

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

37. I like and trust the company which makes this product/brand.

ഈ ഉൽപന്ന / ബ്രാൻഡ് നിർമ്മിക്കുന്ന കമ്പനിയെ ഞാൻ ഇഷ്ടപ്പെടുകയും വിശ്വസിക്കുകയും ചെയ്യുന്നു

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

38. I believe I am loyal to this brand.

ഞാൻ ഈ ബ്രാൻഡിനോട് വിശ്വസ്തനാണെന്ന് വിശ്വസിക്കുന്നു

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

39. When buying products in the category, this brand would be my first choice.

ഈ വിഭാഗത്തിൽ ഉൽപ്പന്നങ്ങൾ വാങ്ങുമ്പോൾ, ഈ ബ്രാൻഡ് എന്റെ ആദ്യ ചോയിസ് ആയിരിക്കും

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

40. I will keep on buying products from this brand as long as this brand provides me satisfied products.

തൃപ്തികരമായ ഉൽപ്പന്നങ്ങൾ നൽകിക്കൊണ്ടിരിക്കുന്നിടത്തോളം കാലം ഞാൻ ഈ ബ്രാൻഡിലുള്ള ഉൽപ്പന്നങ്ങൾ വാങ്ങിക്കൊണ്ടേയിരിക്കും

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

41. I am still willing to buy products from this brand even if its price is a little higher than that of its competitors.

ഈ ബ്രാൻഡിന്റെ വില അതിന്റെ എതിരാളികളേക്കാൾ അല്പം ഉയർന്നതാണെങ്കിൽ പോലും ഞാൻ വീണ്ടും ഈ ബ്രാൻഡിലുള്ള ഉൽപ്പന്നങ്ങൾ വാങ്ങാൻ സന്നദ്ധനാണ്

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

42. I would recommend this brand to my friends.

ഈ ബ്രാൻഡ് എന്റെ സുഹൃത്തുക്കളോട് ഞാൻ ശുപാർശചെയ്യും

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

43. Even if another brand has the same features as this brand, I would prefer to buy this brand.

മറ്റു ബ്രാൻഡിന് ഈ ബ്രാൻഡിന്റെ അതേ സവിശേഷതകൾ ഉണ്ടെങ്കിൽ പോലും, ഞാൻ ഈ ബ്രാൻഡ് വാങ്ങാൻ ആഗ്രഹിക്കുന്നു

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

44. If another brand is not very different from this brand, I think it is smarter to purchase this brand.

മറ്റൊരു ബ്രാൻഡ് ഈ ബ്രാൻഡിൽ നിന്നും തികച്ചും വ്യത്യസ്തമല്ലെങ്കിൽ ഈ ബ്രാൻഡ് വാങ്ങുന്നതാണ് മികച്ചതെന്ന് ഞാൻ കരുതുന്നു

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

45. This brand is more than just a product for me.

ഈ ബ്രാൻഡിന് എന്നെ സംബന്ധിച്ചിടത്തോളം വെറുമൊരു ഉത്പന്നം മാത്രമല്ല

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

46. I will not buy other brands if the following brands are available at the store.

കടയിൽ താഴെപ്പറയുന്ന ബ്രാൻഡുകൾ ലഭ്യമാണെങ്കിൽ ഞാൻ മറ്റ് ബ്രാൻഡുകൾ വാങ്ങില്ല

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

47. The likelihood that the products in the following g brand are functional is very high.

താഴെ പറയുന്ന ബ്രാൻഡുകളിൽ ഉത്പന്നങ്ങൾ ഫലപ്രദമാകാനുള്ള സാധ്യത വളരെ കൂടുതലാണ്

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

48. I am aware of the following brand.

താഴെ പറയുന്ന ബ്രാൻഡിനെക്കുറിച്ച് എനിക്ക് ബോധ്യമുണ്ട് (അറിവ്)

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

49. It makes sense to buy the following brand instead of any other brand, even if they are the same.

താഴെ പറയുന്ന ബ്രാൻഡും മറ്റു ബ്രാൻഡുകളും ഒരു പോലെ ആണെങ്കിൽ പോലും, താഴെ പറയുന്ന ബ്രാൻഡ് വാങ്ങുന്നതാണ് നല്ലതെന്നു എനിക്ക് തോന്നുന്നു

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

50. If there is another brand as good as good the following brand, I prefer to buy the following brand.

താഴെ പറയുന്ന ബ്രാൻഡുകളോട് തുല്യമായ മറ്റു ബ്രാൻഡുകൾ ഉണ്ടെങ്കിലും, താഴെപ്പറയുന്ന ബ്രാൻഡുകൾ വാങ്ങാൻ ഞാൻ ആഗ്രഹിക്കുന്നു

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

51. I have difficulty in imaging the following brand in my mind.

താഴെ പറയുന്ന ബ്രാൻഡുകളെ എന്റെ മനസ്സിൽ ചിത്രീകരിക്കുന്നതിനു എനിക്ക് ബുദ്ധിമുട്ടുണ്ട്

Liquid Hand Wash		Shampoo	
Detol	Chandrika	Dove	Dhatri Dheedhi

52. Based on everything you know about the products from the following brands, please rate the following statements. Score 9 if you strongly agree to it, score one if you not at all agree to it.

താഴെ പറയുന്ന ബ്രാൻഡുകളിൽ നിന്നുള്ള ഉല്പന്നങ്ങളെക്കുറിച്ച് നിങ്ങൾക്കറിയാവുന്ന എല്ലാം അടിസ്ഥാനമാക്കി, ദയവായി താഴെപ്പറയുന്ന പ്രസ്താവനകൾ വിലയിരുത്തുക. നിങ്ങൾ അതിനെ ശക്തമായി അംഗീകരിക്കുന്ന പക്ഷം സ്കോർ 9 കൊടുക്കുക. നിങ്ങൾ ഒട്ടും അംഗീകരിക്കുന്നില്ലെങ്കിൽ സ്കോർ 1 കൊടുക്കുക

Liquid Hand Wash	Dettol	Chandrik	Shampoo	Dove	Dheethi Dharti
<p>I can easily recall its package</p> <p>എനിക്ക് അതിന്റെ പാക്കേജ് എളുപ്പത്തിൽ ഓർക്കാൻ കഴിയും</p>			<p>I can easily recall its package</p> <p>എനിക്ക് അതിന്റെ പാക്കേജ് എളുപ്പത്തിൽ ഓർക്കാൻ കഴിയും</p>		
<p>I can easily recall its package color</p> <p>എനിക്ക് അതിന്റെ പാക്കേജിന്റെ നിറം എളുപ്പത്തിൽ ഓർക്കാൻ കഴിയും</p>			<p>I can easily recall its package color</p> <p>എനിക്ക് അതിന്റെ പാക്കേജിന്റെ നിറം എളുപ്പത്തിൽ ഓർക്കാൻ കഴിയും</p>		

<p>I can easily recall its package shape</p> <p>എനിക്ക് അതിന്റെ പാക്കേജിന്റെ ആകൃതി എളുപ്പത്തിൽ ഓർക്കാൻ കഴിയും</p>			<p>I can easily recall its package shape</p> <p>എനിക്ക് അതിന്റെ പാക്കേജിന്റെ ആകൃതി എളുപ്പത്തിൽ ഓർക്കാൻ കഴിയും</p>		
<p>I can easily recall the Fragrance of this product</p> <p>ഈ ഉല്പന്നത്തിന്റെ സുഗന്ധം എനിക്ക് എളുപ്പത്തിൽ ഓർക്കാൻ കഴി</p>			<p>I can easily recall the Fragrance of this product</p> <p>ഈ ഉല്പന്നത്തിന്റെ സുഗന്ധം എനിക്ക് എളുപ്പത്തിൽ ഓർക്കാൻ കഴിയും</p>		

<p>I can easily recall the texture of this product</p> <p>ഈ ഉല്പന്നത്തിന്റെ രൂപഘടന (ടെക്സ്ചർ) എനിക്ക് എളുപ്പത്തിൽ ഓർക്കാൻ കഴിയും</p>			<p>I can easily recall the texture of this product</p> <p>ഈ ഉല്പന്നത്തിന്റെ രൂപഘടന (ടെക്സ്ചർ) എനിക്ക് എളുപ്പത്തിൽ ഓർക്കാൻ കഴിയും</p>		
<p>I can easily recall the usage experience of this product</p> <p>ഈ ഉൽപ്പന്നത്തിന്റെ ഉപയോഗ അനുഭവം എനിക്ക് എളുപ്പത്തിൽ ഓർക്കാൻ കഴിയും</p>			<p>I can easily recall the usage experience of this product</p> <p>ഈ ഉൽപ്പന്നത്തിന്റെ ഉപയോഗ അനുഭവം എനിക്ക് എളുപ്പത്തിൽ ഓർക്കാൻ കഴിയും</p>		

53. Are you willing to answer a 1minute phone call two weeks later regarding the study you did today? If yes, please share your preferred time.

ഇന്ന് നടത്തിയ പഠനത്തെക്കുറിച്ച് രണ്ടാഴ്ചക്കുശേഷം ഒരു ഒരുമിനുട്ടിന്റെ ഫോൺ കോളിന് മറുപടി നല്കാൻ താങ്കൾ തയ്യാറുണ്ടോ? ഉവ്വ് എങ്കിൽ, നിങ്ങൾക്ക് ഇഷ്ടപ്പെട്ട സമയം പങ്കുവെക്കുക

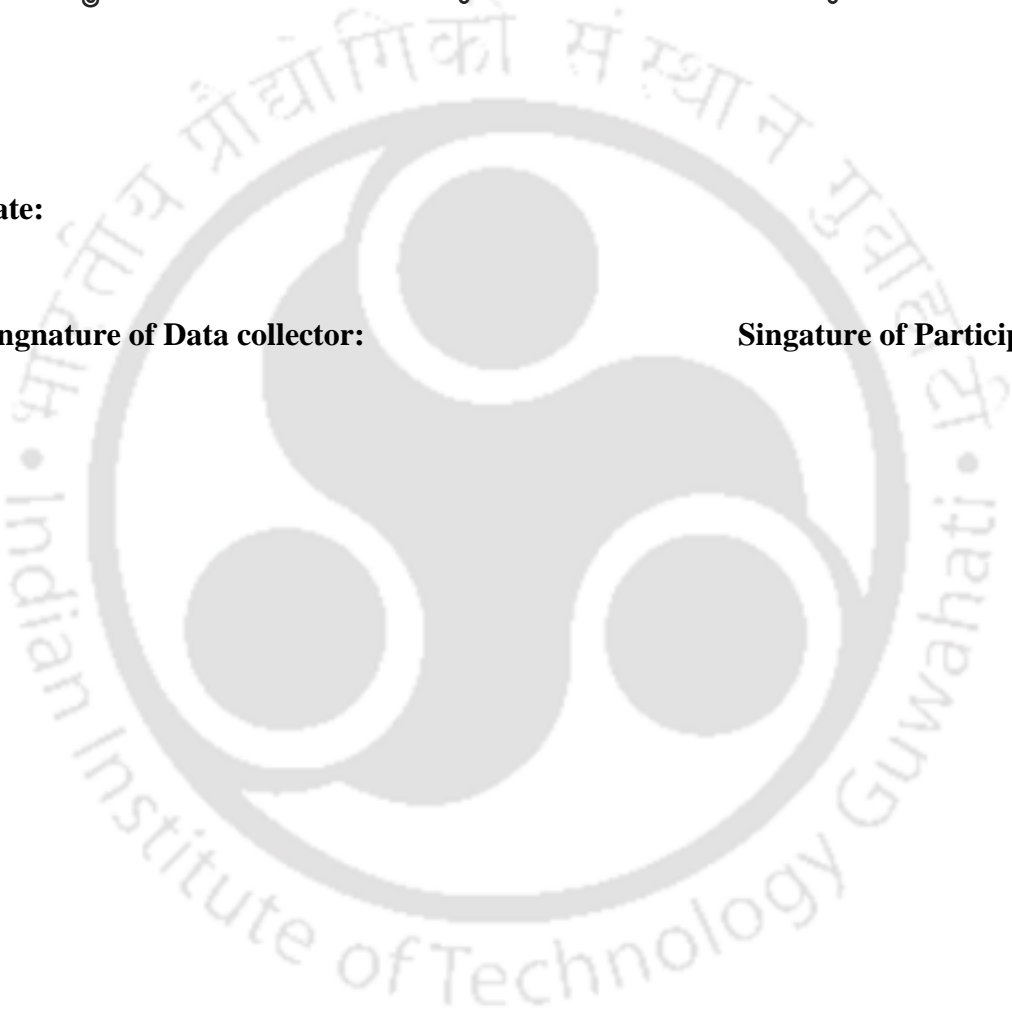
Thank you very much for your participation in the study. Your perspective and answers are very valuable to us. Please collect a small token of appreciation for joining this study.

ഈ പഠനത്തിലെ നിങ്ങളുടെ പങ്കാളിത്തത്തിന് വളരെ നന്ദി.
നിങ്ങളുടെ കാഴ്ചപ്പാടുകളും ഉത്തരങ്ങളും ഞങ്ങൾക്ക് വളരെ
വിലപ്പെട്ടതാണ്. ഈ പഠനത്തിൽ പങ്കുചേർന്നതിനുള്ള
നന്ദിസൂചകമായ ചെറിയ ഒരു ടോക്കൺ സ്വീകരിക്കുക.

Date:

Signature of Data collector:

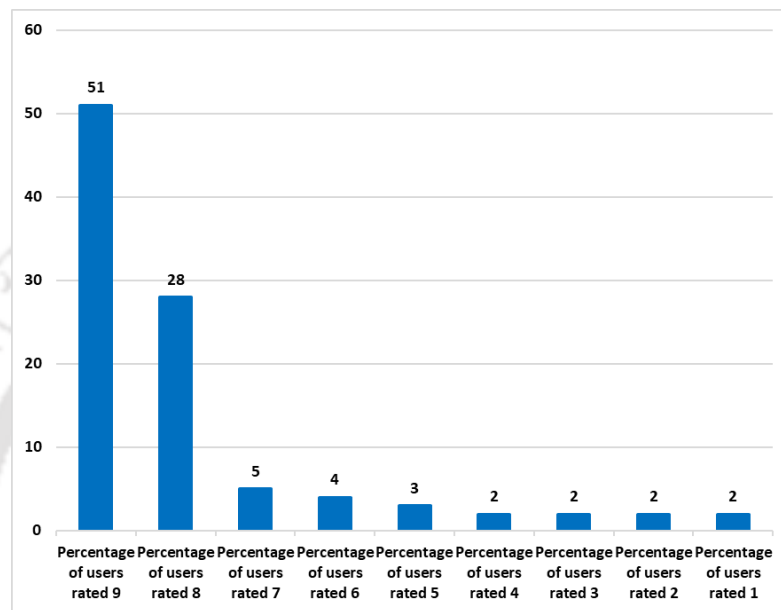
Signature of Participant:



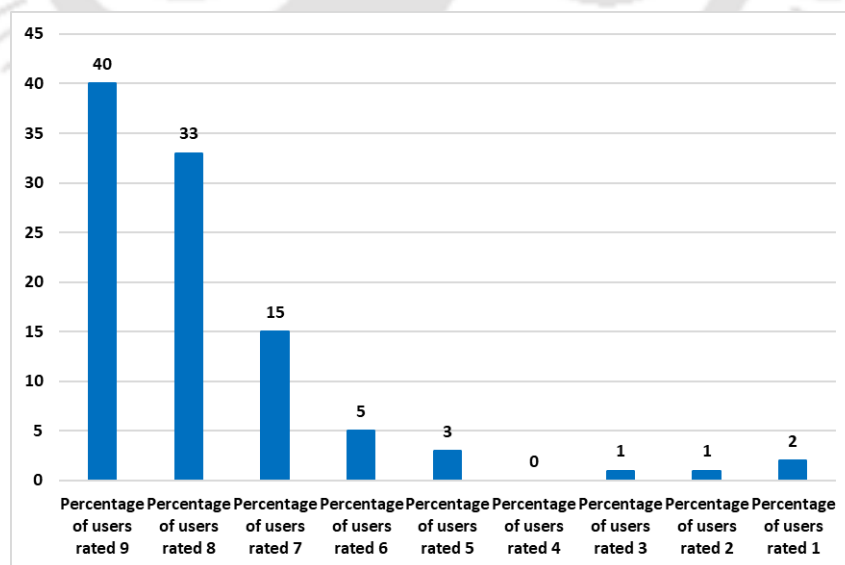
Appendix 8E-I

Data Visualization from the Main Test (Chapter 5, Experiment 2)

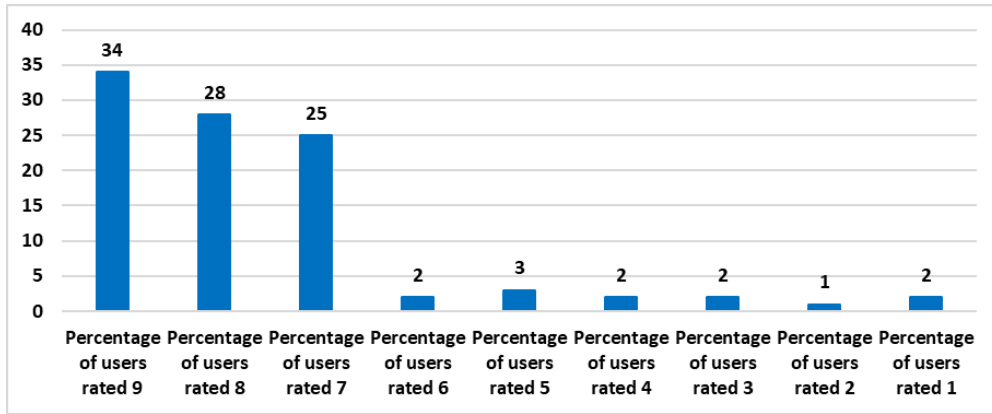
Data from the Main test of users rating the importance of each of the various products, packages, and brand-related attributes in their purchase decision-making process is graphically visualized and presented below.



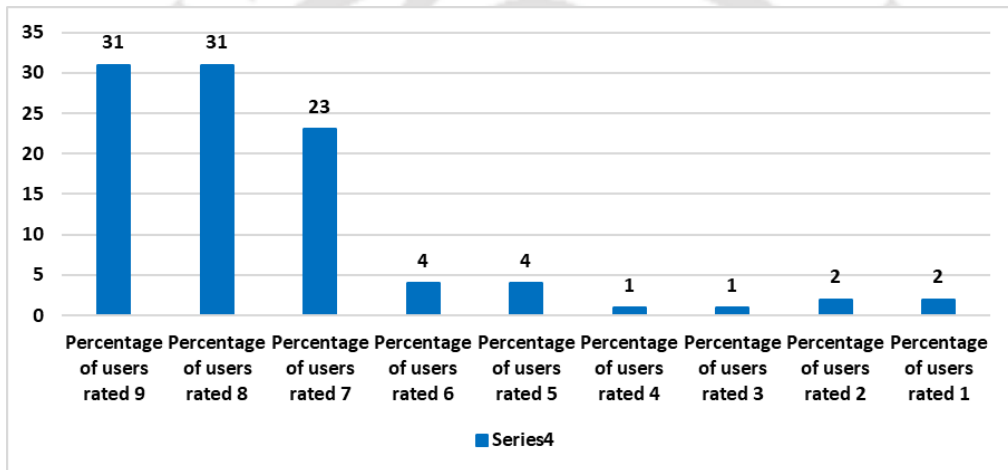
Percentage of users rated the importance of good product usage experience in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



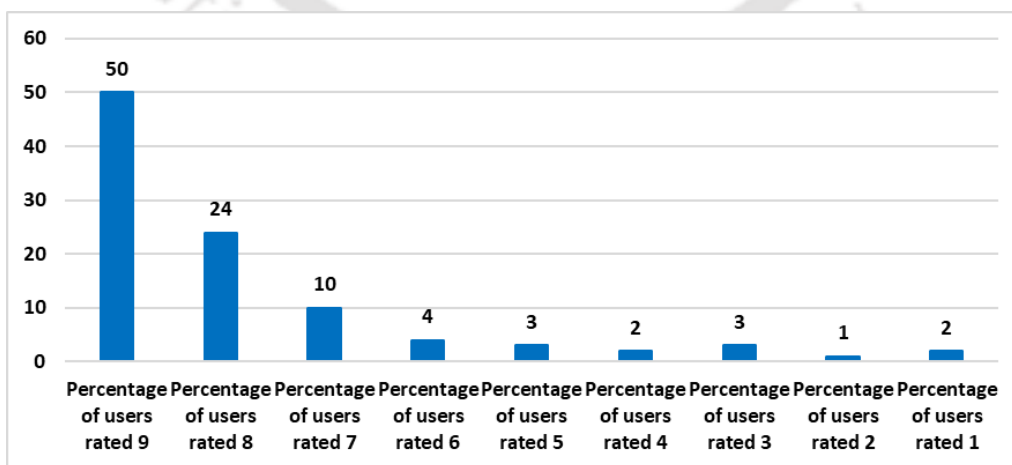
Percentage of users rated the importance of beautiful package in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



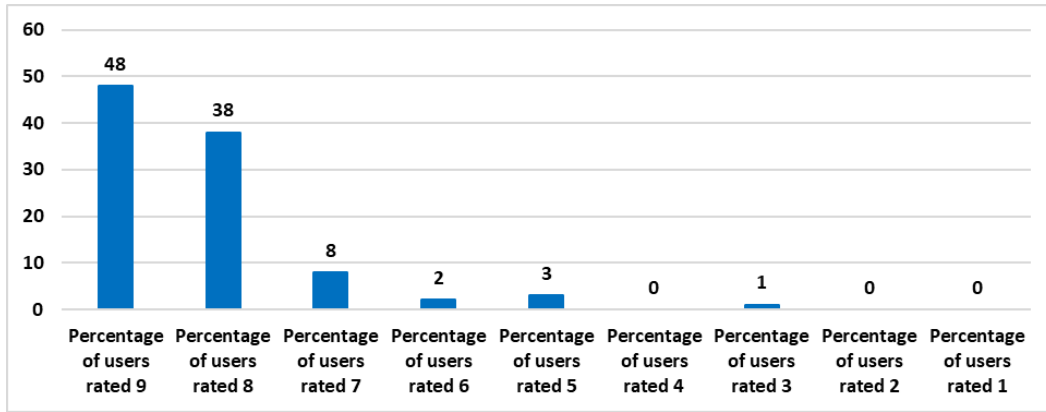
Percentage of users rated the importance of the color of the package in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



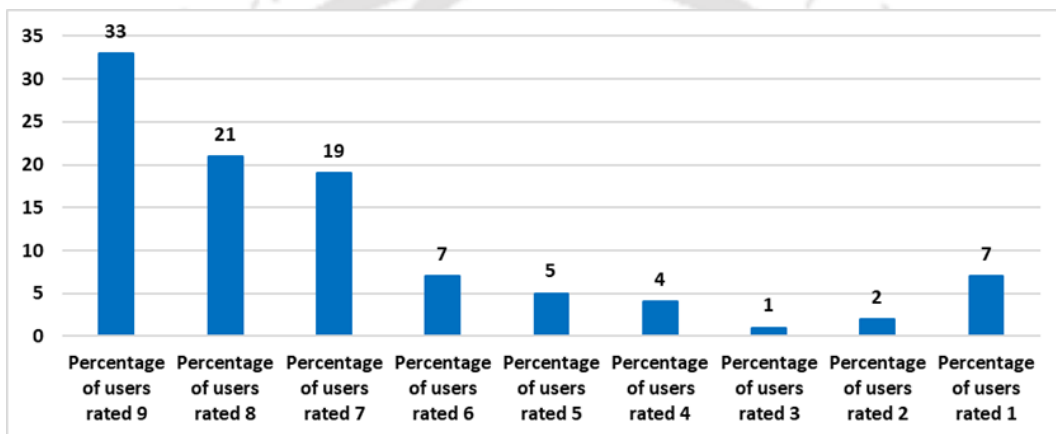
Percentage of users rated the importance of the shape of the package in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



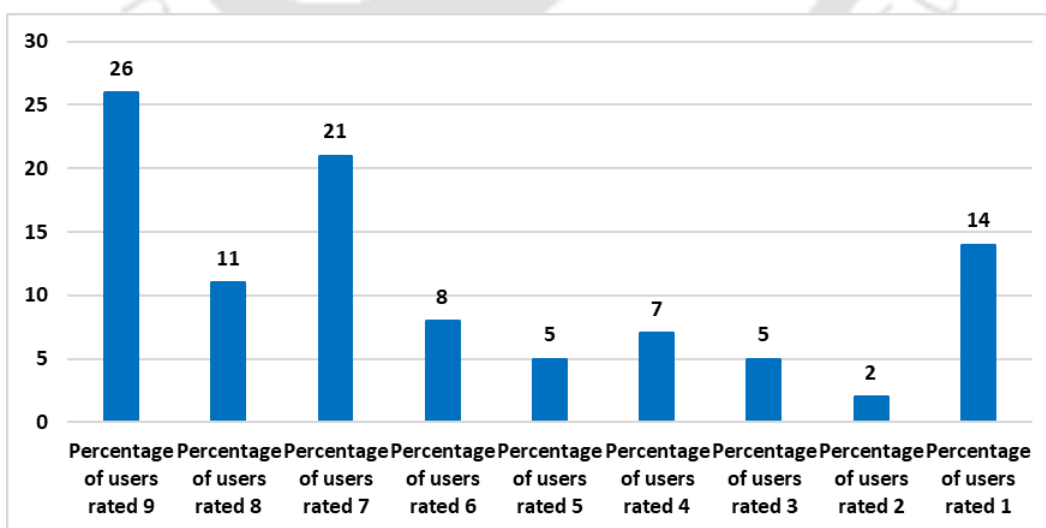
Percentage of users rated the importance of fragrance of the product in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



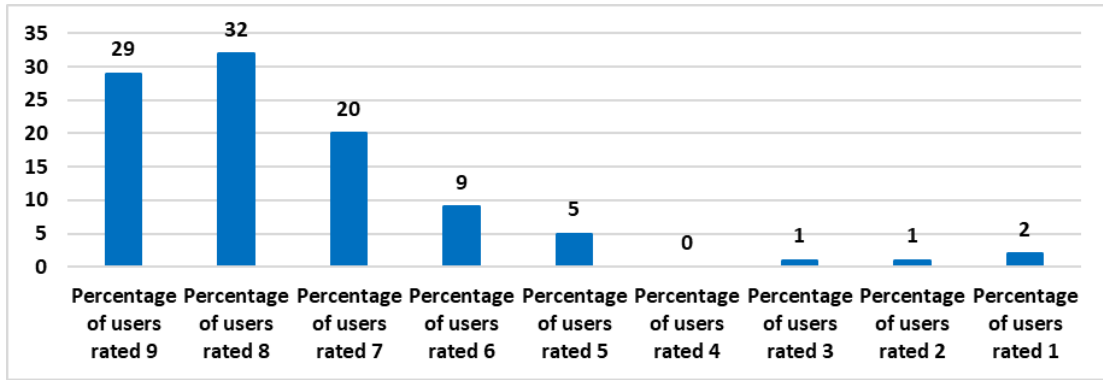
Percentage of users rated the importance of the Brand name in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



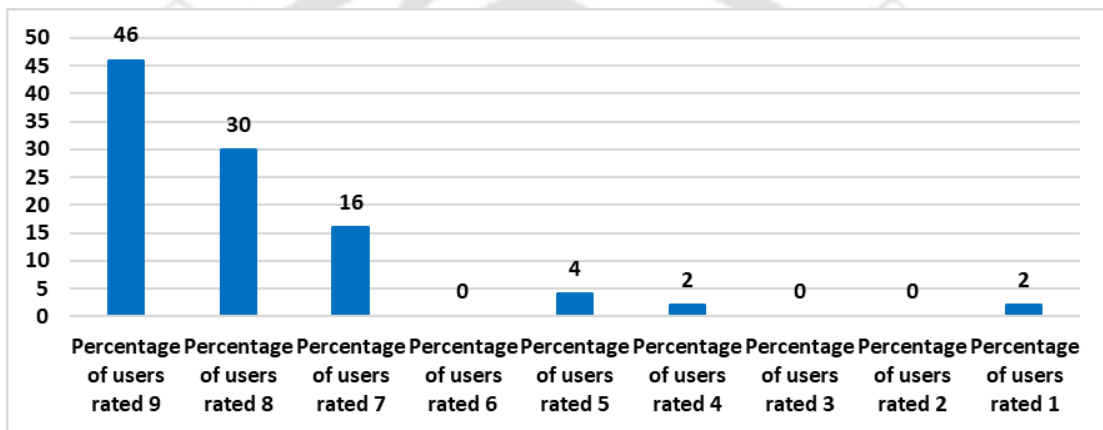
Percentage of users rated the importance of the advertisements in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



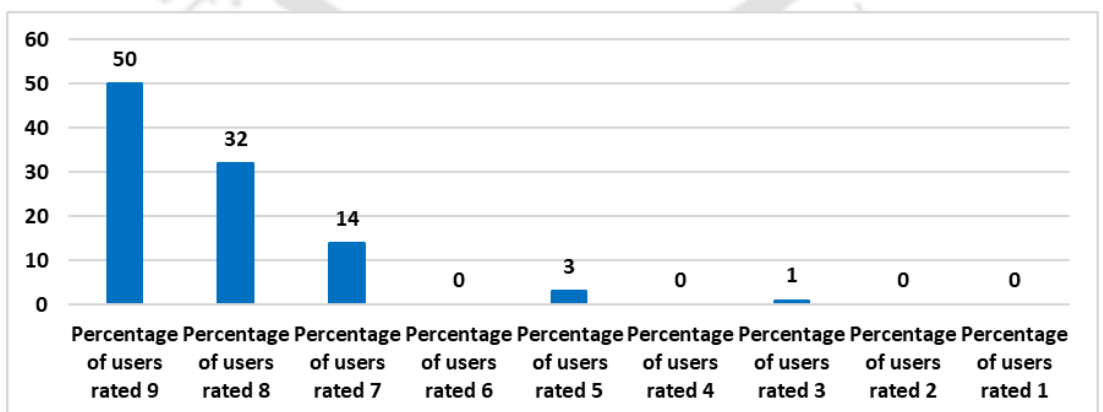
Percentage of users rated the importance of the Celebrity used in advertisements in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



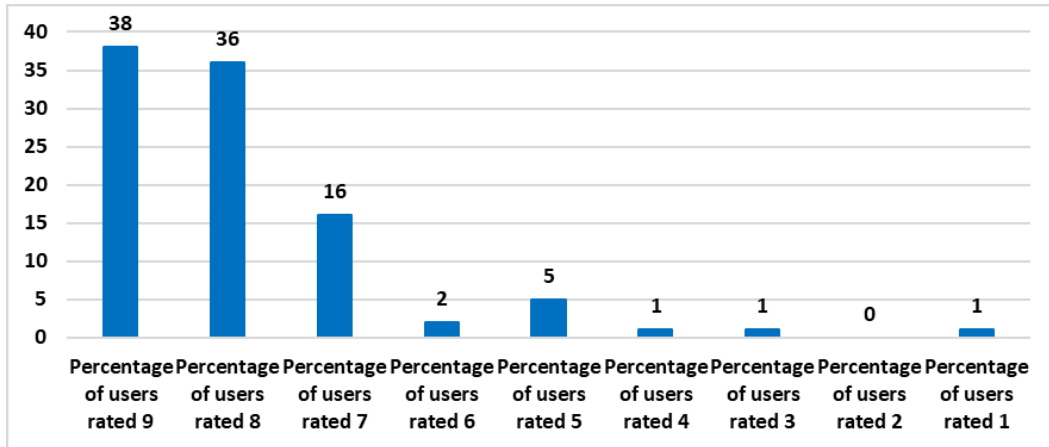
Percentage of users rated the importance of the Texture of the product in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



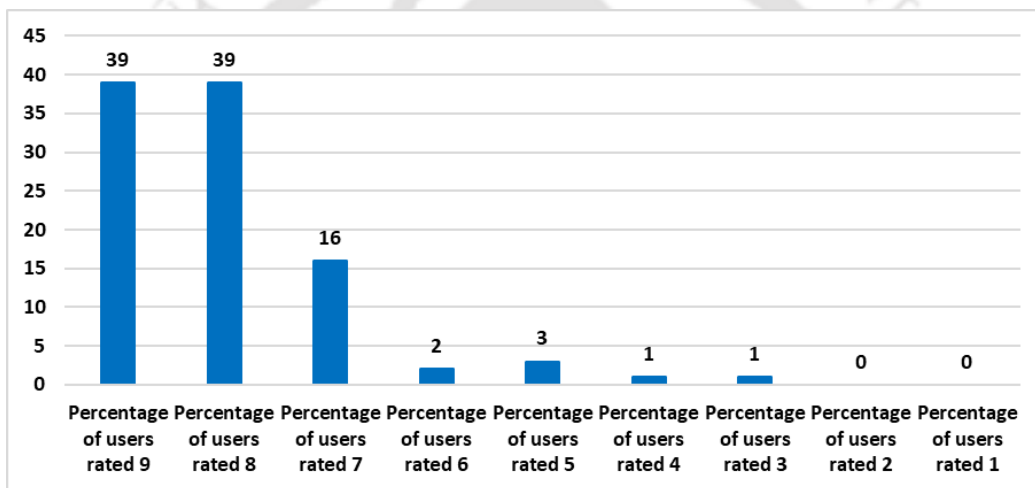
Percentage of users rated the importance of the Effectiveness of the product in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



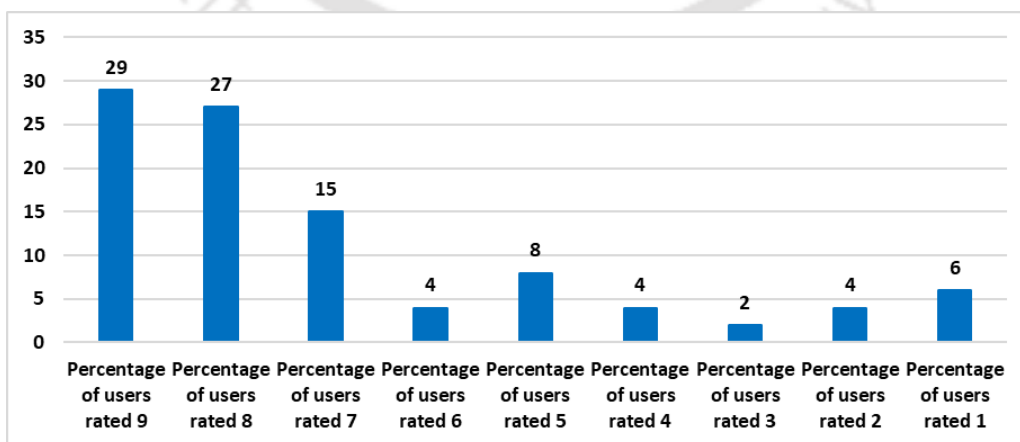
Percentage of users rated the importance of the Quality of the product in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



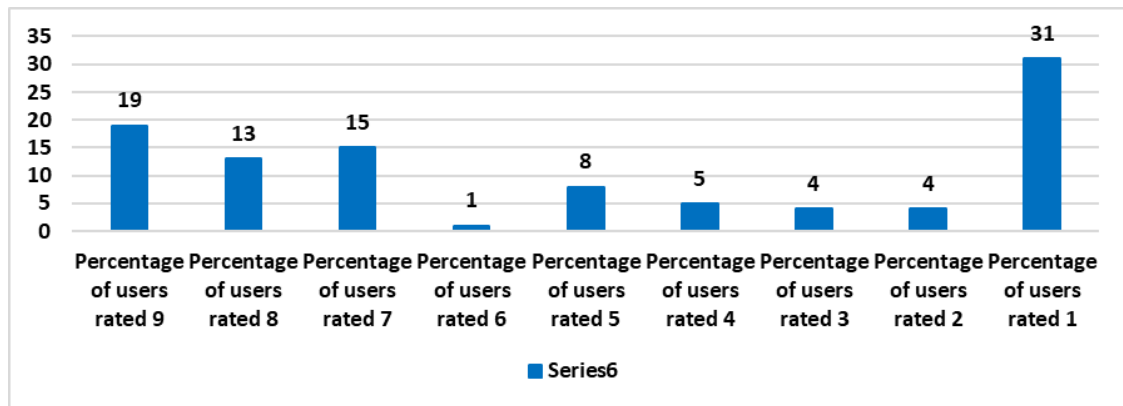
Percentage of users rated the importance of convenience of the package in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



Percentage of users rated the importance of Value for money in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



Percentage of users rated the importance of Friends recommendation in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



Percentage of users rated the importance of Country of origin of the product in purchase decision making at each of the nine points on nine points Likert Scale (N=48).



List of Publication Resulting out of the Research Work Reported in this Thesis

Journal Publications

No	Name of Publication	Name of Journal	List of Authors	Status
1	Role of Product Experience in Product Purchase: Indian Users	SCMS Journal of Indian Management ISSN 0973 – 3167, Vol 16, Issue 01, January 2019 Page: 95-104	Toney Sebastian, Pradeep G. Yammiyavar and Stevan Jones	Published
<p>Abstract</p> <p>A quantitative survey-based user study was conducted among 126 Indian users to understand the effects of the various product, package, and brand-related attributes on CPG purchase decision making. The scope of the survey was the general purchase of CPG products, and not specific to any category. Results from the study revealed that 'good usage experience' and quality of the product are the two most important factors for the users. By performing statistical analysis using a t-test, the study confirmed that the importance of 'good usage experience' is significantly higher than brand and package-related attributes with a p-value of <0.001. Further, good user experience was also identified as the most important factor for purchase satisfaction and repeat purchase.</p>				

2	<p>Brand Selection in Planed Purchasing: An Analysis of Asian User Behavior</p>	<p>IAFOR Journal of Psychology & the Behavioral Sciences</p> <p>ISSN: 2187-0675, Vol 04, Issue 02, Nov, 2018, Page: 03-14</p>	<p>Toney Sebastian, Pradeep G. Yammiyavar and Stevan Jones</p>	<p>Published</p>
<p>Abstract</p> <p>Users in planned purchasing undergo significantly different decision-making process compared to impulsive purchasing. Although several researchers have investigated user behavior of buying products from planned categories such as organic products and halal products, research in the domain of selecting a specific brand within a category is limited. A qualitative study was conducted among users across several Asian markets such as China, Hong Kong, Taiwan, South Korea, and Thailand to understand factors influencing the brand selection process in a planned purchase context. The qualitative study used a content analysis-based approach, with a code sheet incorporating elements associated with purchase behavior among over 100 users across the countries. The qualitative study revealed that factors such as recommendations from friends, family members, and sales consultants, TV programs like advertisements and informative product programs, and other parameters like the in-store presence of the brand, product information on the package, and aesthetic appeal of the package have a positive influence on the users' brand selection process. Findings from the qualitative study were used to formulate multiple hypotheses about the relative importance of these different factors. These hypotheses were evaluated using an online survey among users from several Asian markets (predominantly India, Philippines, and Singapore), with a base size of 63. Statistical investigations were done using the t-test with a p-value of 0.05. Results from the current study provide data that strengthen knowledge in the domain of consumer psychology and are relevant for product designers and marketers, who are designing and commercializing products in planned purchase categories.</p>				

3	<p>Translating Purchase Behavior to Design Strategies: A Theoretical Model</p>	<p>International Journal of Engineering Science and Technology. ISSN 0975-5462, Vol 9, Issue 09, September 2017, Page 40-45</p>	<p>Toney Sebastian, Pradeep G. Yammiyavar and Stevan Jones</p>	<p>Published</p>
<p>Abstract</p> <p>A review of user behavior models such as Fogg’s Behavior Model, Theory of Planned Behavior, and Impulsive Buying Model is conducted to uncover specific insights on user behavior in product purchase. Further, neurophysiologic methods such as Skin Conductance Response, Functional Magnetic Resonance Imaging, Electroencephalogram, and Eye Movement Recorder are reviewed to identify research techniques to understand user’s non-conscious response to product design. The insights from user behavior models and design evaluation techniques are used to develop a theoretical model for user-driven design strategy. The proposed model uses Fogg’s Behavior Model as a foundation and suggests ‘trigger’ and ‘motivation’ design strategies for products in impulsive and planned purchasing categories, respectively. The model provides a solid connection between the user, product design, and market and may be relevant for new product developments.</p>				

4	<p>Design Strategies Using Customization: A Study of Indian User Perceptions</p>	<p>International Journal of Engineering Science and Technology. ISSN 0975-5462, Vol 9, Issue 09, September 2017, Page 62-65</p>	<p>Toney Sebastian, Pradeep G. Yammiyavar and Stevan Jones</p>	<p>Published</p>
<p>Abstract</p> <p>A study of customization-based design strategy was conducted among Indian users to understand their perceptions towards the concept. The study used online shopping of Sports Shoes and Pen as product categories with two options of customization; imprinting user's name on the product and customization of colors. The study revealed that about 83% of the users preferred customized products in at least one of the four scenarios presented. Among the users' preferred customization, over 75% expressed willingness to pay more for their preferred customized product, which suggests that user motivations can be positively influenced using customization-based design strategies. The study also showed category-specific differences in the relevancy of features used for customization. For sports shoes, users preferred customization of colors; however, imprinting of name was not preferred. For the pen, although the majority of users preferred customization in both scenarios, imprinting of name received better acceptance. This suggests that designers need to use category-specific user understanding in selecting features to use in customization-based design strategies.</p>				

5	<p>Transforming Brand Archetype Using Package Graphics: An Empirical Study</p>	<p>International Journal of Engineering Science and Technology. ISSN 0975-5462, Vol 9, Issue 09, September 2017, Page: 166-169</p>	<p>Toney Sebastian, Pradeep G. Yammiyavar and Stevan Jones</p>	<p>Published</p>
<p>Abstract</p> <p>Brand archetypes are widely used as a way to establish user-brand relationships. The designer plays a critical role in the creation of brand archetypes by incorporating relevant design elements in designs across all user touchpoints. A study among Indian users was conducted to investigate the effect of design elements of package graphics on the transformation of brand Archetypes. The study revealed that user perception of brand archetype could be changed by changing design elements of package graphics, without affecting the brand name or shape of the package.</p>				

6	<p>Product Selection in Planned Purchasing: Asian User Behavior and its Implications to Designers</p>	<p>International Journal of Engineering Science and Technology. ISSN 0975-5462, Vol 9, Issue 09, September 2017, Page: 53-57</p>	<p>Toney Sebastian, Pradeep G. Yammiyavar and Stevan Jones</p>	<p>Published</p>
<p>Abstract</p> <p>Users in planned purchasing are influenced by several determinants in their process of product selection. A study involving qualitative research among users from several Asian markets such as China, Hong Kong, Taiwan, Korea, and Thailand was conducted to identify the factors influencing product selection in planned purchasing. The study revealed that, across the markets, determinants that are not profited from the purchase has the highest level of influence in decision making, while those with a branded context, e.g., sales representatives, have the least influence. Cultural differences were also observed in the behavior of store browsing and online purchasing. The findings provide relevant insights to designers who are designing products to win user’s purchase decisions.</p>				

Conference Publications

No	Name of Publication	Name of Conference	List of Authors	Status
7	Behavioral Differences in Planned and Impulsive Buying: A Study of Indian Users	ICQPROM 2017 ISBN: 978-1-5090-6140-2 April 2017, Page 15-18	Toney Sebastian, Pradeep G. Yammiyavar and Stevan Jones	Published

Abstract:

Users in Planned and Impulsive buying behaves differently in purchase environments. These differences are driven by the differences in the extent of information sought and time devoted to the product selection process. In impulsive buying, the purchase could be influenced by a sudden urge to buy, while in planned purchasing, strong motivational elements are required. A study of Indian users was conducted to understand the behavioral differences in planned and impulsive buying. The study used an online survey platform to understand factors influencing purchase decisions. Behavior in planned purchasing was assessed using the shopping of a Bluetooth headset as an example, while behavior in impulsive buying was assessed using the chocolate purchase. The study revealed that in planned purchasing, users give higher importance to product features as opposed to aesthetics. Statistical significance of the difference was assessed using a t-test, which showed significance with a critical value of $\alpha=0.05$. In impulsive buying, users preferred aesthetically appealing package compared to a standard package. This was evidenced by over 74% of users expressing willingness to pay more for the aesthetically appealing package, despite keeping the same features as the standard package. Findings from the study provide relevant insights to designers in developing behavior-based design strategies that enhance the quality perception of the products.

8	Modeling Design Strategies for Package Graphics: A Study of Hair Care Products among Young Indian Users	ICORD 2017 Research into Design for Communities, Volume 2, ISBN 978-981-10-3520-3, Page: 727-737	Toney Sebastian, Pradeep G. Yammiyavar and Stevan Jones	Published
<p>Abstract</p> <p>A study of hair care package graphics was conducted among young Indian users to examine the effect of design elements on successful user acceptance. The study revealed that typography of the brand name should be given the highest weightage among all texts, and information of higher importance should be placed towards the top one-third of the graphics to capture the user's primary attention. The study was performed using package graphics of eight hair care products, including domestic and global brands, selected using a purposive sampling technique. A descriptive qualitative content analysis using a code sheet incorporating a designer's perspective was performed to identify the ranking of the importance of design elements in package graphics. Further, a small scale quantitative and qualitative user study was conducted to assess if the qualitative content analysis based assessment is matching user preferences. Validation of the findings was done using an Eye Movement Recorder based study.</p>				

9	<p>Domestic and Global Designs in Hair Care: A Study of Aesthetic Preferences of Indian Users</p>	<p>ICORD 2017, Research into Design for Communities, Volume 2, ISBN 978-981-10-3520-3, Page: 799-809</p>	<p>Toney Sebastian, Pradeep G. Yammiyavar and Stevan Jones</p>	<p>Published</p>
<p>Abstract</p> <p>A study of domestic and global haircare package graphics was conducted to understand the aesthetic preferences of Indian users. Package graphics of products from domestic and global markets were selected using purposive sampling. The study employed a quantitative Image test, which revealed that the users preferred graphic designs of global brands over domestic brands. User evaluations using Eye Movement Recorder and qualitative interviews were conducted to understand specific elements of the aesthetic preferences, which indicated that the presence of logo or ingredient visual with high clarity and highlighting cap with gold bands or with colors of logo/ingredients have a high influence on aesthetic appeal. An improved version of the least accepted design was developed by incorporating the findings and relative user acceptance was assessed. The study revealed that over 80% of users among a base size of 49 preferred the improved design over the original design for ‘beautiful’ and ‘premium’ attributes.</p>				

10	Cross-Category Application of Design Strategies: A Study of Package Graphics	ICQPROM 2017 ISBN: 978-1-5090-6140-2 April 2017, Page 430-433	Toney Sebastian, Pradeep G. Yammiyavar and Stevan Jones	Published
<p>Abstract</p> <p>A study of package graphics was conducted among Indian users to understand the cross-category applicability of design strategies. A pre-test was conducted to develop design strategies to enhance aesthetic acceptance of the package graphics in the hair care category. Current research extended its application to the chocolate category. Package graphics of a domestic chocolate product was selected using a purposive sampling technique. A modified version of the package graphics was developed by applying the design strategy developed from the pre-test. The aesthetic acceptance of the original and modified designs was assessed using an online survey among 39 Indian users. The results revealed that users prefer package graphics of modified design by rating it significantly higher for keywords such as beautiful, premium, innovative, and trusted. Statistical significance of the difference in user acceptance was assessed using a t-test, which showed significance with a critical value of $\alpha=0.01$. The results suggest that overall quality perception of the products could be enhanced by design strategies, evidenced by a higher rating of keyword 'trust.' Further, the study also revealed that aesthetic acceptance of package graphics might not have category-specific differences, and therefore successful design strategies could be reapplied across categories.</p>				

11	Product Design Strategies for Planned and Impulsive Buying: An Approach Based on FOGG's Model	International Conference on Research and Business Sustainability - ICRBS 2017. ISBN: 978-93-86238-38-2, Page: 118-121	Toney Sebastian, Pradeep G. Yammiyavar and Stevan Jones	Published
<p>Abstract</p> <p>Consumers in planned and impulsive buying behave differently in their process of product selection and purchasing. Product designers and marketers need to understand these differences to come up with market-winning product design and commercialization strategies. A study of young Indian consumers was conducted using qualitative and quantitative methods to understand factors influencing planned and impulsive buying. Further, a review of theoretical models such as Fogg's Behavior Model, the Theory of Planned Behavior, and Impulsive Buying Model was conducted. The learning from consumer studies and theoretical models were used to formulate design strategies for planned and impulsive buying. The approach recommends improving the aesthetic appeal of the package using package graphics as a strategy for impulsive buying and personal customization of products as a strategy for planned purchasing. Consumer acceptance of the strategies was validated using an online survey-based quantitative study. The study provides relevant insights to product designers and marketers who are designing and commercializing products targeting young Indian consumers.</p>				