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#### Supersizing: A Financial Saving or Threat to Consumer Health: The Moderating Role of Nutritional Labels

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#### Résumé

Les décisions en matière d'alimentation portent sur deux thématiques différentes : celles relatives au choix des aliments que nous mangeons et celles concernant la quantité de nourriture ingurgitée. Les psychologues de la consommation et de la santé accordent souvent plus d'attention à la compréhension des facteurs qui influent sur le choix des aliments que sur la quantité consommée. Cependant, à une époque où l'obésité croît, connaître la quantité de nourriture ingérée est aussi pertinent que de savoir les types d'aliments mangés. Bien qu'il puisse y avoir divers facteurs contribuant à des situations de surpoids, il incombe à l'industrie alimentaire et aux actions marketing, une responsabilité du fait des offres de produit en format familial et autres treize à la douzaine. La littérature aborde les comportements des consommateurs optant pour un grand format des produits alimentaires, principalement via la variable prix. Mais n'y a t'il pas d'autres éléments non financiers qui pousseraient le consommateur à choisir de consommer plus ?

Cette thèse adopte une approche mixte basée sur des études qualitatives et quantitatives. Dans un premier temps, une phase exploratoire qualitative permet de mettre à jour les antécédents et les conséquences d'un achat de produits alimentaires en grand format. Les données ont été collectées selon une méthode de triangulation mixant des récits de vie (35 narrations), des tests projectifs (60 complétion de phrases et constructions) et des entretiens approfondis (25 entretiens), et ont été analysées avec NVIVO 12. Les conclusions de cette phase qualitative suggèrent que le consommateur choisit le format des aliments selon le rapport quantité/prix, la sensation de faim, la ressemblance et l'influence sociale. De plus, choisir les grands formats génère diverses conséquences, en termes d'économies financières, de problèmes de santé, de gaspillage alimentaire, de culpabilité et de satisfaction. Notre étude qualitative nous permet de proposer un modèle centré autour de l'alternative entre les avantages financiers et les considérations de santé, modérée par le besoin de justification et le sentiment de culpabilité.

Dans une phase quantitative, notre modèle est testé dans différentes conditions selon le type de produit, la présence de label nutritionnel, une consommation immédiate ou différée. La méthode choisie est l'expérimentation. Cinq expérimentations ont été menés sur un échantillon total de répondants pakistanais (798 personnes) et français (838 personnes) L'étude quantitative a démontré que les stratégies de prix dégressifs selon les quantités achetées incitent non seulement les consommateurs à acheter et à consommer davantage, mais aussi, dans le même temps, amenuisent leurs objectifs de santé et diminuent leur culpabilité

de trop consommer (souvent associée aux aliments hédoniques). Cependant, la présence d'étiquettes nutritionnelles contenant les informations relatives aux calories et aux nutriments pour le format proposé, remet au premier rang les objectifs de santé et augmente le sentiment de culpabilité.

Cette thèse contribue à la littérature existante sur le « *supersizing* » (format familial) dans le cas de produits alimentaires. A la lumière de la théorie des Moyens-Fins et dans une approche de *Transformative Consumer Research*, cette recherche propose de nuancer le lien simple prix/quantité en introduisant d'autres facteurs tels le sentiment de culpabilité du consommation et la présence d'étiquettes nutritionnelles. En outre, en réponse au fléau mondial de l'obésité, aux offres de mal-bouffe et au gaspillage alimentaire, cette recherche apporte des pistes d'action susceptibles d'améliorer le bien-être alimentaire de tous.

Mots clés : Rapport prix/quantité, format familial, expérimentation, santé alimentaire, labels nutritionnels, gaspillage alimentaire, culpabilité, obésité, Transformative Consumer Research

#### **Abstract**

The decisions related to the food choice and consumption quantity are not the same. Food choice decision refers to the type of food we eat, whereas consumption quantity decisions refer to the amount of food we eat. Consumer and health psychologists often pay more attention to comprehend the factors that impact food choice compared to consumption quantity. At a time of growing obesity, knowing about the amount of food we eat is as pertinent as what we eat. Though there can be various culprits behind this worrying phenomenon, the food industry has been held responsible due to the "supersized" beverage and food options. Despite what we know about consumers' purchase decisions of supersized food options, the understanding of other reasons behind the purchase of upsized food is limited. Therefore, detailed knowledge of consumers' decisions about supersized food is essential.

This dissertation adopted a mixed-method approach based on qualitative and quantitative studies. The qualitative exploratory research examined the antecedents and consequences behind the purchase of supersized food products. The data for the study was collected through a mixed-method triangulation approach, comprising 35 narratives,60 through sentence completion and constructions, and 25 in-depth interviews, which were analyzed with the help of NVIVO 12. Our findings from the qualitative study suggest that consumers' choice of upsized food is inspired by several antecedents such as price quantity trade-off, hunger, likeness, and social influence. Besides, the acquisition of a larger food container also results in some inevitable consequences, which appear in the form of financial saving, health concerns, food waste, guilt, and satisfaction. Our qualitative study led the foundation for the quantitative research to further examine the role of supersized pricing in the immediate and delayed consumption context to better understand the role of consumer health and value goals along with consumption guilt.

Subsequently, a series of 5 studies were conducted from a total sample of 798/838 Pakistani and French respondents to better understand the decision-making process of consumers in a supersized world, as they often come across "supersized" food offers aimed for immediate consumption. The quantitative study demonstrated that such pricing strategies not only cause consumers to purchase and consume more but at the same time influence their crucial goals in distinct domains, expressly, by diminishing the importance of health goals and decreasing the anticipated consumption guilt which is often associated with hedonic foods. The supersized

pricing is influential in affecting the buying behavior of consumers; however, the carefully designed nutritional labels containing the nutritional information related to the whole portion can refrain them from diminished health focus and increase their feelings of guilt for hedonic food. Moreover, supersized pricing can also be used to enhance the size choice of healthy food.

This dissertation contributes to the existing literature on supersizing, consumption guilt, and nutritional labeling in light of the Means-End theory and TCR. It also discusses the marketing and public policy implications for the obesity epidemic and food waste to enhance the food well-being of consumers.

Keywords: Supersizing, nonlinear pricing, health, value, goal interactions, Nutritional label, consumption guilt, obesity, food waste, Transformative Consumer Research

# **Dedications**

This thesis is dedicated to my parents and family, especially to my mother, and my Love who gave me unconditional affection, encouragement, and support.

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I want to thank Allah almighty for giving me the energy to complete this Thesis. Before starting my dissertation. I was kind of dead, sure that the first person in my acknowledgment will be my Mother. The reason is simple: Research was never my choice; she emotionally blackmailed me into going abroad for research! So, when I started it was not much of a career choice. But then luckily, I requested Prof. COVA to be my dissertation supervisor, and to my fortune, she agreed! I must confess that it is her, who deserves the credit for this Ph.D. dissertation and my foremost gratitude. I want to thank her for being such an inspiration. Her dedication and commitment have been exemplary. I have always found her to pay utmost consideration to my work and dedicate considerable amount of time to my development. Thank you, Madam, for helping me take my first step in the realm of research. Indeed, the quality of this dissertation is not at all representative of the extreme kindness, and interest you have taken in my work but these first "baby researcher" steps and your inspiration give me an excellent foundation to carry on, and hopefully one day I can live up to the expectations.

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# **Table of Contents**

Résumé	2
Abstract	4
Dedications	6
Acknowledgment	7
INTRODUCTION	14
1.Research Background and Motivation	14
2. Problem Statement	18
3. Research Questions	18
4. Significance of the Study	18
4.1 Theoretical Contribution	19
4.2 Managerial and Public Policy Implications	20
5.Organization of the Thesis	20
PART 1: STATE OF THE ART	24
CHAPTER I: SOCIAL MARKETING AND TRANSFORMATIVE CONSUMER RESEARCH	26
Introduction for Chapter I	26
Section 1- Food consumption and Social Marketing	27
1.1 Food consumption – a wicked contributor to obesity	27
1.2. Introduction to Social Marketing	28
1.2.1 Operational criteria for social marketing	29
1.2.2 Emergence of new movement under the umbrella of social marketing	33
Section 2: Transformative Consumer Research (TCR)	34
2.1. Background of TCR	35
2.2.TCR organizes to effect more significant societal impact	36
2.3. TCR aims to maximize societal impact through relational engagement	36
2.4. Major TCR Domains	38
2.4.1. Poverty	39
2.4.2. Consumer Rights	39
2.4.3. Materialism	40
2.4.4. Sustainable Development	41

2.4.5. Risky consumption	41
2.4.6. The experiential pleasure of food	41
2.4.7. Health, Overconsumption, and Nutritional labels.	42
Summary of chapter I	45
CHAPTER II: FUNCTIONS OF FOOD AND FOOD MYOPIA	47
Introduction for Chapter II	47
Section 1: Functions of Food	48
1.1 Meaning of Food	48
1.2. Food Goals	49
1.2.1. Functional Goals	49
1.2.2. Symbolic Goals	49
1.2.3. Hedonic Goals	49
1.3. Food Influences	50
1.3.1. Automatic Influences	50
1.3.2. Deliberative Influences	50
1.4. Cultural Perspective about Food	51
Section 2: From Psychological Myopia to Food Myopia: A consumer Perspective	53
2.2. Related Literature for Food Myopia	55
2.3. Discussion and implications of Food Myopia	58
Summary of Chapter II	64
CHAPTER III: CONSUMER PERCEPTIONS ON FOOD CONSUMPTION	66
Introduction for Chapter III	66
Section 1- Consumer Price Perceptions and Packaging	67
1.1. Consumer Price perceptions	67
1.2. Price vs. Value	69
1.3. Pricing and Package Size	72
Section 2- Food Consumption Goals	75
2.1. Consumer Health and Value in the World of Supersized Pricing	75
2.2. Value and Financial goals	78
2.2. Health Goals:	79

Section 3- Food Consumption, Anticipated Guilt and use of Nutritional Labels	81
3.1. Consumption and Anticipated Guilt	81
3.2. Nutritional labels	83
3.3. Consumers' Food Choice Decisions in the Context of Means-end Theory	86
Summary for Chapter III	92
CHAPTER IV: QUALITATIVE STUDY, THEORETICAL FRAMEWORK, AND HYPOTHESES	94
Introduction for Chapter IV	94
Section 1 – Exploratory Study: Beyond Supersized Pricing, The Choice for Supersized Food?	95
1.1 Introduction:	95
1.2 Research Methodology	99
1.2.1 Research Design and Data Collection	99
1.2.2 Projective Techniques	. 100
1.2.3 In-Depth Interview	. 105
1.3. Target Population and Sampling Method	. 106
1.4. Data Collection Procedure	. 107
1.4.1. Storytelling / Narratives	. 108
1.4.2. Completion and Construction tasks	. 108
1.4.3. In-depth Interviews	. 109
1.5. Data Analysis	. 109
1.6. Results and Discussion	. 111
1.7. Conclusion of Qualitative study	. 128
SECTION 2 – Research Gap and Hypothesis Development	. 130
2.1. Research Gap for Quantitative Study	. 130
2.2. Research Questions for Quantitative Study	. 133
2.3. Hypotheses Development	. 134
2.3.1 How nonlinear pricing leads to increased package size	. 135
2.3.2. How consumers focus on value goals influences health goals	. 137
2.3.3. Overriding the influence of nonlinear pricing on size choice through Nutritional Labels	139
2.3.4. Consumption quantity	. 142
2.3.5. Product Type and Nutritional claims	. 143
2.3.6. Supersized pricing and Anticipated Consumption Guilt	. 146
2.3.7 Conceptual Model	. 148

Summary for Chapter IV	151
PART 2: EMPIRICAL ANALYSIS & RESULTS	152
CHAPTER V: RESEARCH METHODOLOGY AND USE OF STATISTICAL TOOLS	154
Introduction for Chapter V	154
Section 1: Research Methodology	155
1.1. Research Posture	155
1.2. Choice of Method	160
1.3. Principles of the experimental approach	161
1.4. The concept of causality	164
1.4.1. Direct effect of an independent variable X on a dependent variable Y	165
1.4.2. Moderating relationship	165
1.4.3. Mediated relationship	166
1.4.4. Moderated Mediation Relationship	166
1.5. The different validities of the experimental approach and the biases to be minimized	168
1.5.1. Internal validity	168
1.5.2. External validity	168
1.5.3. Biases affecting internal and external validity	169
1.6. Data Collection and Experimentation Implementation	171
Section 2: Main Statistical Tools for Data Analysis	173
2.1. Preliminary treatments	173
2.1.1. Missing values and non-serious subject during the experiment	173
2.1.2. Extreme and outlier values	175
2.2. Scaling options and Measuring instruments	177
2.2.1. Types of measuring instruments	177
2.2.2. Reliability of measurement scales	179
2.3. Statistical tools for hypothesis testing	179
2.3.1. ANOVA	180
2.3.2. Binary logistic regression	182
2.3.2. Bootstrap for the mediation test	182
Summary of Chapter V	185

CHAPTER VI: RESEARCH METHODS, ANALYSIS OF ALL STUDIES AND DISCUSSION OF RESULTS	187
Introduction for Chapter VI	187
1 – Research Methodology and Analysis of Results	188
1.1. STUDY 1	189
1.1.1. Methodology	189
1.1.2.Results	190
1.1.3. Discussion	192
1.2. STUDY 2	193
1.2.1. Methodology	194
1.2.2. Results	196
1.2.3. Discussion	203
1.3. STUDY 3	204
1.3.1. Methodology	204
1.3.2. Results	207
1.3.3. Discussion.	213
1.4. STUDY 4	214
1.4.1. Methodology	214
1.4.2. Results	216
1.4.3. Discussion	222
1.5. STUDY 5	223
1.5.1. Methodology	224
1.5.2. Results	227
1.5.3. Discussion	236
2 – Discussion of the Results	237
Summary for Chapter VI	245
GENERAL CONCLUSION	246
1. Theoretical Contributions	247
2. Methodological Contributions	
3. Managerial and Public Policy Implications	
4. Limitations, Future Research Recommendations, and Conclusions	
4.1. Limitations	
4.2 Future Research Recommendations	258

4.3. Conclusion	261
REFERENCES	263
List of Tables	295
List of Figures	298
APPENDICES	301

# **INTRODUCTION**

# Introduction

# 1. Research Background and Motivation

"The challenge for controlling obesity is that we are inviting consumers, not to abstinence, but moderation. Stopping from starting has long been recognized to be easier than stopping once started: "easier to resist at the beginning than at the end." (Leonardo da Vinci)

Over the years, humans have been asking themselves a question, what does a good life mean? Answer to such a compelling and perplexing question cannot be formed or given without referring to consumption behaviour at the personal and collective levels. Consumption is defined as the act of satisfying the biological and cultural needs, desires, or urges by consuming the humanmade product. Consumption involves purchasing, using and disposing of the products. What food we eat, what clothes we wear, what we drive, what sort of leisure activities we perform, all of these activities have a positive or negative influence on consumers, at the individual and social level, and also on the way the world and future generations would be.

Consumption is one of the essential elements to determine who will survive in this everchanging and dynamic world. Without consumption, life ends at least at a primary level of air, water, food, and shelter. Millions of people in underdeveloped economies lack some of the necessities of life to survive (Chapin, 2004). Conversely, in other parts of the world, one would find economically dynamic consumption, varying in the way people live, thrive, suffer, and die. All these factors are connected with the consumption in a way the consumers acquire, own, and dispose of the products (Csikszentmihalyi, 2000; Schor & Holt, 2000). As a result, consumption today expedites many purposes, and concerns ranging from nutrition, contentment, and accomplishment to greed, disfranchisement, and damage.

When it comes to the decisions related to food consumption, we as consumers make more than 200 decisions a day (Wansink & Sobal, 2007a). Though the decisions related to the food choice and consumption quantity are not the same. Food choice decision refers to the type of food we eat such as Fruits or Fast food, whereas consumption quantity decisions are related to the amount of food we eat partial or full. Consumer psychologists and health psychologists have frequently paid more attention to comprehend the factors that impact food choice compared to consumption quantity. At a time of growing obesity, knowing about the amount of food we eat is as pertinent as what we eat. (Hall et al., 2011; Hill, 2008; Nestle & Nesheim, 2012; Young & Nestle, 2002).

According to Wansink and Wansink (2010), the amount of everything offered has increased for the past 1000 years, e.g., the size of plates, bread, cups, or containers. For instance, the size of coca-cola bottles or can have increased from the earlier 192ml (6.5 oz) bottle to 250ml (8.5 oz) and 500ml bottles (17 oz), etc. Moreover, the manufacturers of food, beverages, and restaurants are free to decide what package or serving size and description to offer in the market (e.g., "medium" or "value" size). Deciding what package size and shape are to be offered is crucial for the firms. Over the last decade, the portion size has distorted to a large extent, and consumers are served a lot more than recommended (S. J. Nielsen & Popkin, 2003; Young & Nestle, 2002). For instance, Tim Horton (a Canadian chain) introduced the extra-large 24 oz cup of coffee by retitling the old extra-large cup with large and old large cup with medium, etc.

Although it's not clear whether marketers are responding to the needs of consumers or they are shaping them, but one thing is sure that consumers overconsume from larger portion sizes (Chandon & Wansink, 2011; Wansink, 2004). As a result, marketers are held responsible for using supersizing as a marketing tool to inspire customers to purchase more, which results in the enhanced consumption due to the impact of portion size (Dobson & Gerstner, 2010; Haws & Winterich, 2013). As mentioned by (Zlatevska, Dubelaar, & Holden, 2014) that the average consumption increases by 35% due to the doubling of portion sizes. Marketers are held responsible for the current consumption patterns of consumers, which negatively affects their well-being. There are various controversies and issues in society, which requires marketing scholars to come forward to assist consumers and better understand the impact of marketing in their lives (Muscelli et al., 2008a). Concerning the practice of promoting larger sizes, it was Mcdonald who coined the term "Supersizing" in the 1990s but discontinued it later due to

a famous documentary called Super-Size Me in 2004, explaining the adverse effects of the practice on consumer health (Dobson & Gerstner, 2010).

Until now, Marketers and consumer researchers are unable to measure the marketing relevance in the lives of consumers effectively, especially when it comes to the investigation of managerial implications. For marketing, the notion of well-being is in the early stages, since its primary objective is to satisfy the needs of consumers through consumption (Andreasen, 1994a; Bergadaà, 2004). However, the social marketers and public health authorities remain active, which can be signaled from the struggle of New York City, as they wanted to get 16 oz soft drinks banned (Saul, 2014) which was overturned by the court. Similarly, in the California State of USA, the nutritional labels for sugary beverages are used in the form of warning signs like tobacco products. (Witkowski, 2007) stated that people might not be convinced that food industry demonstrates more virtue compared to tobacco companies, but the regular food marketing mix decisions causes severe health issue to millions of consumers across the globe.

The value offered by the supersized packages undeniably is consumers' top of the list reason to justify their purchase (Vermeer et al., 2010). Though such kind of "supersizing" trend, is often witnessed in the developed world, especially in the United States and it's considered as one reason behind rapidly increasing obesity rates (Rozin, Kabnick, Pete, Fischler, & Shields, 2003), but it has also become a common trend in the rest of the world including the developing countries such as Pakistan and India. Moreover, the research in that regards becomes even more crucial because the consumers are not well informed about their consumption norms in less prosperous world and may not have the skills to withstand the marketing flatteries like other well off countries, who themselves are not sure about the food claims (Redmond, 2005), hence the postulation of "rational consumer" may rather be fragile.

Pakistan is an underdeveloped country, and the per capita income of a significant chunk of the population is meager, but the food consumption norms in the country are alarming and require a transformation. Pakistani consumers spend almost half of their income on food (World Economic Forum, 2016) and Fast food is preferred by 89% of Pakistanis, due to its palatability and convenience, and 70% of people believe it to be the probable cause of obesity (Baig & Saeed, 2012). A particular segment of the population is more concerned about saving money and eating unhealthy but delicious food for pleasure. Therefore, the presence of

supersizing is commonly practiced in the country as value sized products are more attractive to those people having low income and are easily inspired by discounts.

The majority of local restaurants and food companies along with Multinational chains follow this practice. For instance, at KFC or McDonald's, the consumers have a small, medium and large-sized or menu deal options for snacks and beverages. By just paying an additional Rs.20 consumers can upsize their French fries at KFC("KFC Pakistan," 2018), and by spending only 44%, more money consumers can double the size of their milkshake at McDonald's ("McDonalds Pakistan," 2018) and similarly consumers can opt for a menu with lower perunit price associated to each menu item compared to its cost alone. Not only that even companies like Pepsi and Coca Cola follow the same practice and the local convenience stores also sell 250ml and 500ml drinks in Rs.25 and Rs.40 respectively. Hence consumers can double their drink by paying just 13 more rupees, and the price per unit decreases even further for even larger bottles, i.e. 1,1.5 and 2.25-liter containers respectively.

According to a study in The Lancet medical journal, Pakistan is the ninth most obese country in the world (Marie Ng, Tom Fleming, Margaret Robinson, Blake Thomson, & Others, 2014), encompassing 21% men and 26% women as obese respectively. India (19.5% of men and 20.7% of women) and China (28.3% of men and 27.4% of women) are also among the top list along with USA (70.9% of men and 61.9% of women) (Aarti 2014). Although the problem is severe in the US, it has become a global concern as more than a billion adults are overweight and more than three hundred million people, of which more than 115 million belong to developing nations. This number will inevitably surge quickly (World Health Organization [WHO] 2000). Moreover, according to OECD (2017) report, the obesity rate can reach a high of 21% by 2030 in France also. These states of affairs add to the importance of this research being conducted for Pakistan and France.

The above discussion signifies the role of consumers' food-related decisions and its impact on their health and well-being. Building on this and taking the inspiration from the Transformative consumer research to enhance consumer well-being, this thesis focuses on Supersizing and its impact on consumption quantity.

#### 2. Problem Statement

Despite what we know about consumer decision making and purchase of larger package sized food, the understanding of other reasons behind the purchase of supersized food packages is limited. There has been relatively little research about identifying the reasons behind consumers' intentions to opt for larger packages apart from the better value or lower per-unit cost. Therefore, the attaining of a more detailed understanding of the decision-making process of choosing supersized food products is crucial. Precisely, what consumers think about supersized products, and why they prefer the larger containers among the other options despite knowing the food to be unhealthy, and what situations cause them to make such decisions is essential.

Moreover, understanding what consumers feel and do after the purchase of an upsized container can help marketing research better meet the needs and demands of all consumers. They can come up with better solutions based on their understating of the antecedents and consequences behind the consumers' purchasing of more substantial packaged foods. A study of consumers buying supersized food can take many directions, but we focus on what consumers think about larger packaged foods, assess value, make decisions, and cope with the outcomes of their choices.

# 3. Research Questions

- To explore the reasons behind the purchase of supersized food options among the various available size options.
- To explore the post-purchase behavior of consumers to understand the consumption pattern after choosing the supersized food product.
- How do consumers cope with the consequences of their consumption decisions?

# 4. Significance of the Study

Marketers are often held responsible for the growing obesity rates in the world, and the supersized food option is considered as one of the culprits behind the obesity epidemic. Hence, it's crucial for the marketers as well as researchers to study the supersizing phenomenon in more detail, considering its contribution to both the theory and practice. This

thesis contributes to the literature on consumer decision-making behavior and supersizing research in various ways.

#### 4.1 THEORETICAL CONTRIBUTION

We examine a significant area of goal interactions in which consumers get on with one goal (i.e., financial value) by leaving off another goal (i.e., health importance). We provide insights into the process which increases the purchased quantity through supersized pricing in the context of a developed and underdeveloped country as this supersized decision mechanism exists in both countries. We propose that supersizing not only affect the financial goals by increasing the value-based justification, it also decreases the importance of health, which is an unrelated goal for immediately consumed products. However, this mechanism varies a bit in case of delayed consumption, per se, supersizing does affect financial goals of consumers by enhancing the value-based justification. However, it does not influence health goal such that the shift in health in health importance does not occur in this case.

This dissertation also adds to the overconsumption and food waste literature by proposing that it's the supersized products whose choice leads not only to overconsumption but also to food waste, both these factors adversely impact the food well-being of individuals as well as society.

We also contribute to the anticipated guilt literature by examining the role of supersized pricing. We propose that supersizing also decreases the anticipated consumption guilt like the other promotional deals, as suggested by the previous research. This research also explains the decision-making process of consumers in supersized pricing and anticipated guilt perspective which is a valuable addition to the previous mechanism of unrelated and conflicting goals (health vs value).

Further explanation of our theoretical contribution is mentioned in the general discussion and conclusion part of this dissertation.

# 4.2 MANAGERIAL AND PUBLIC POLICY IMPLICATIONS

Considering the appeal of supersizing strategy in the form of profit and benefit for both the buyers and sellers, marketers and Public policymakers can focus on applying supersized pricing strategy for healthy products such as fruits and vegetables or even the hedonic products which are relatively healthy such as low fat or low calorie. Using the supersized mechanism for healthier foods is beneficial for society, marketers, and consumers correspondingly

Marketers should consider the nutritional labels, environmental clues, and product adjacencies carefully because of their significant impact on the pricing mechanisms they are going to opt (linear or non-linear). Providing complete nutritional information related to full package size rather than only serving related information can help consumers make informed consumption decisions.

Marketers and Public policymakers should also pay attention towards the products that are purchased and consumed later considering the fact that the implications of those food products are also relevant and the nutritional properties and quantity of those foods might also affect the health and wellbeing of consumers the same way like immediately consumed foods, if not more, considering the fact that the buying larger quantity of food might increase the food accessibility, food salience, and consumption frequency

# 5. Organization of the Thesis

This thesis contains two parts; part one consists of four chapters, whereas part two consists of two chapters.

In the first part of the dissertation, we discuss consumption and the role of social marketing and Transformative consumer research and an exploratory approach to explore the decision-making process of consumers when it comes to supersized food products.

Chapter I discusses the issues related to consumption, the role of social marketing in changing the behavior of individuals by connecting it to the latest movement which has emerged as a structural change in social marketing called transformative consumer

research(TCR). We discuss various domains of TCR comprising materialism, risky consumption, consumer rights, experiential aspects of food, overconsumption, obesity, and health. Then we further explain the role of food in overconsumption and obesity as it supports our research problem and motivation for the study.

**Chapter II** describes the meaning, functions, and goals of food consumption and its effects on consumer well-being/health. Moreover, this chapter also discusses the cultural implications of food along with the deliberative and automatic responses towards food. Finally, this chapter concludes with the notion of Food myopia which is the resulting cause of consumer's inclination towards pleasurable and unhealthy food options.

**Chapter III** introduces and reviews the literature related to pricing, package size, consumption goals(financial vs health). This chapter also discusses the role of anticipated consumption guilt and the use of nutritional labels in influencing consumer's food-related decisions.

**Chapter IV** presents the exploratory qualitative study, the conceptual model, and the hypotheses of this research. In the first section of chapter IV, we discuss the qualitative methods. It provides a comprehensive explanation of the emerging themes through the triangulation of projective techniques and in-depth interviews. The second section talks about the research hypothesis and the conceptual model. The qualitative study findings and the literature review helped us formulate our conceptual model for empirical testing. We have developed the research hypothesis both by direct and indirect effects (moderating effect)

**The second part** of the thesis aims to empirically test the proposed model and research hypotheses with a quantitative study. This part comprised of two chapters (chapter V and VI) to discuss the research methodology and results.

Chapter V discusses the epistemological posture, research methods, quantitative analysis techniques, and statistical tools whereas Chapter VI explains the five different parts or studies. Each study describes the research methodology and results to test our hypothesis which leads to a concise discussion systematically followed by the need for conducting the next study sequentially to explain further the process of consumer decision making in the context of two different and competing goals. We have tested all our hypotheses in each study with the

method of logistic and ordinal logistic regression along with ANOVA and linear regression. Then we will have a general discussion of results in context of current and previous research conducted about the topic at hand.

Finally, the general discussion and conclusion summarize the contributions and limitations of this dissertation. The contributions of this dissertation include theoretical and managerial and public policy aspects. Moreover, we have also discussed the limitations of the study along with future research directions.

#### INTRODUCTION **Chapter III** Chapter I **Chapter II** Section 1: Price Perceptions Section 1: Food Section 1: Functions of and Packaging Consumption and Social Food Marketing Section 2: Food Consump-Section 2: Food Myopia tion Goals Section 2: Transformative STATE OF ART Section 3: Guilt and Use of Consumer Research **Nutritional Labels Chapter IV** Section 1: Exploratory Qualitative Study Section 2: Research Gap and Hypothesis Development **EMPIRICAL ANALYSIS AND** Chapter V **Chapter VI** Section 1: Research Section 1: Research Methodology Method and Analysis of Results, and general Section 2: Main Statistical Discussion of results Tools for Data Analysis **GENERAL CONCLUSION**

Figure 1 General structure of the thesis

23

# PART 1. STATE OF THE ART

# PART 1: STATE OF THE ART

#### **CHAPTER I:**

**Social Marketing and Transformative Consumer Research (TCR)** 

#### **CHAPTER II:**

**Functions of Food and Food Myopia** 

#### **CHAPTER III:**

**Consumer Perceptions of Food Consumption** 

#### **CHAPTER IV:**

Qualitative Study and Hypothesis development

Figure 2: Structure of the first part of the thesis

### **CHAPTER I:**

# SOCIAL MARKETING AND TRANSFORMATIVE CONSUMER RESEARCH

#### INTRODUCTION FOR CHAPTER I

The interest of researchers to work on the consumption-related problems has been proliferating for past one decade, primarily due to the introduction of the structural change in social marketing in the form of the latest academic movement called "Transformative Consumer Research (TCR)."

The primary purpose of this chapter is to highlight the role of food consumption and marketing actions to obesity. It will then shed some light on the social marketing and background of TCR, along with its significance in this dissertation. This chapter is based on two parts:

The first part of this chapter describes social marketing and its role in changing the behavior of consumers to enhance their welfare. Moreover, considering the lack of consensus on the definition and objective of social marketing, this chapter provides some understanding of the consensus definition of social marketing and its operational criteria, which then leads to the emergence and need of a new movement to identify and resolve the consumption-related problems faced by consumers today.

The second part of this chapter discusses the emergence of the TCR movement, which works under the umbrella of social marketing to sort out consumption-related problems and enhance consumer well-being. This part describes the introduction and background of TCR, along with its efforts for social impact and some domains in which TCR researchers are working. This part also highlights the motivation behind the topic of the study at hand.

# Section 1- Food consumption and Social Marketing 1.1 FOOD CONSUMPTION – A WICKED CONTRIBUTOR TO OBESITY

Healthy food is essential to ideal healthiness and vigor and has a necessary part in the inhibition of numerous lingering disorders. The amalgamation of high-calorie, fewer nutrient diets, and extra inactive routines is causal to the increasing fatness matter globally (WHO 2003). Back in 1995, there had been an appraised 200 million overweight grownups globally. As in 2016, the number of overheavy adults had augmented to supplementary 1.9 billion of which the 650 million were overweight. Here it is thought-provoking to mark the fatness epidemic is not limited to industrial civilizations; in emerging nations, it is projected that more than 115 million individuals undergo from obesity relevant difficulties (WHO 2003). Under evolving countries having per capita Gross Domestic Production underneath \$5,000—as Pakistan as well as Nigeria—also facades fatness related dangers and high lipid which tip to heart syndrome (Ezzati et al., 2005).

Fighting the fatness subject signifies one of the highest public fitness trials confronted at both a national and world level(Carins & Rundle-Thiele, 2014).

Marketers shape the food consumption practices of persons as they have an impacting role in food consumption, as people face a lot of marketing strategies and marketing messages from food giants who are seeking to impact their food picks and attitudes (Chandon & Wansink, 2012). Marketing as a whole has been proven to impact food attitudes and consumption, through the likes of product placement and packaging, while most of these choices take place with least awareness or effort (Wansink & Sobal, 2007a). The strategies of marketing such as advertising can to a great extent change consumption attitudes by creating a more striking image of food in the minds of consumers(Milosavljevic, Navalpakkam, Koch, & Rangel, 2012). Moreover, they also can make the consumption reasonable which is other than the regular food intake times.

Frequently the food consumption is connected to pleasant or happy behaviors or states by marketing strategies, for instance, by positioning the use of snack food as a significant part of much-awaited break times or as a way out of similarity; that is how soda is linked with excellent social outings. These links socialize the consumption of such foods in groups to make them normal and deep-rooted in the usual consumption choices.

People usually criticize Marketing for the role it plays because of consumption-related problems and controversies in society (Muscelli et al., 2008b). By dealing with and stimulating these natural benefits, diet marketers have been blamed for backing to the emergent issue of worldwide obesity (Brownell & Battle Horgen, 2003). Furthermore, people often believe that advertisements shove consumer responses for more delicious, opportune, and less luxurious food practices.

There is a practice of using hidden persuaders among Marketers to fuel and exploit consumers' organic interests by prompting their eating pick and diet potion choices. The fundamental ways to fatness are miscellaneous, with diet feasting being a noteworthy terrific supplier. Therefore, there is a mounting focus on food buying and eating choices of people(Gortmaker et al., 2011; Roberto et al., 2015).

However, such behaviors of consumers cannot be changed over time, nor do marketers can change their selling practices and products they produce. What they can do is educate consumers to make informed choices and encourage them to modify their consumption norms and shift slightly towards healthier options and at the same time moderate their consumption quantity. In this regard, social marketing has been playing its role over the years which is discussed below.

#### 1.2. INTRODUCTION TO SOCIAL MARKETING

Though in the 1960s, Marketing researchers wrote and conducted research on the titles that would today be termed a part of social Marketing (e.g., Simon 1968), the roots of the phenomenon of social marketing can be linked back to Kotler and Zaltman's classic article in the Journal of Marketing called, "Social Marketing: An Approach to Planned Social Change", (Kotler & Zaltman, 1971).

(Elliott, 1991) suggests in 1991 that this progress had reflected both vital increments in the burdens within the marketing subject to be more communally responsible and the advent of technologies in other areas that apply to social improvement. The technological advances point was reflected in the contribution of Rogers (1962), Weibe in 1951/52, and the likes.

The first of all and formal description of the term Social Marketing was coined by Kotler and Zaltman in 1971(p.5.) which says, "Social Marketing is the scheme, execution, and mechanism of agendas intended to affect the tolerability of communal notions and relating concerns of product design, appraising, message, circulation, and marketing study."

Many researchers criticized this description because of its confusion with societal marketing, limited relevance to government organizations and NGO marketers and most significantly the idea of idea publicizing: almost all researchers, however, consider that there is a lot more social marketing than concepts, such as attitudes and behavior (Andreasen, 1994b).

To this day, our idea of social marketing has widened, and we now think the main emphasis of this is on the extensive implication of a wide assortment of accessible marketing apparatuses and methods (i.e., conveyance of a complete marketing mix) to aid social betterment (Wymer, 2011). In 2015 Social Marketing had been generally known as a reliable attitude change area with governments worldwide accepting the significance of Social Marketing as an area that could alter behaviors of the people for their betterment.

Marketers have been proposing many different descriptions of the term Social Marketing ever since its first introduction in the 1970s. An agreed-upon definition (see www.i-socialmarketing. org/assets/social\_marketing\_definition.pdf) was coined in October 2013 among the prime social marketing participants worldwide, called the International Social Marketing Association (ISMA), the Australian Association of Social Marketing (AASM), and The European Social Marketing Association (ESMA). The unanimity description shapes that the Social Marketing aims at developing and integrating the concept of Marketing with other approaches to impact the attitudes that advantage people and societies for the higher social cause, otherwise, it is considered a deliberate preparation procedure or methodical solicitation of practices, aimed for the profit of persons or civilization rather than profitmaking gain (J. French & Blair-Stevens, 2006; Kotler & Lee, 2008; Stead, Hastings, & McDermott, 2007)".

### 1.2.1 Operational criteria for social marketing

For the last forty years as the area of social marketing has improved and expended a wide array of frameworks outlining the series of actions which comprise of social marketing have been forwarded (for example Andreasen 2002, Cairns & Stead 2009, Grier & Bryant, 2005; Robinson-Maynard et. Al., 2013; Lefebvre & Flora, 1988; Walsh et al., 1993). No one of the social marketing models has been empirically authenticated. The concepts like competition, exchange theory, consumer orientation, audience segmentation, marketing mix and continuous monitoring base from commercial roots of Social Marketing (Andreasen 2002, Grier & Bryant 2005, Cairns & Stead 2009).

In 2002, there were six criteria described by Andreasen to give social marketing a vibrant assembly, to discriminate it from other tactics (for instance, public health) and to help drive social marketing into an alternative segment of progress. These measures perform as a check that intercession has a customer center, as each measure readdresses the emphasis back to the objectives of both platform supporters and the consumers the petition seeks to impact.

There is also a behavioral objective that reminds social marketers that their aim is not only to inform or educate but also to change the behavior. Adding to that, the segmentation of the audience needs bright ideas of who is the target of the efforts; whereas the formative study aims at ensuring an understanding of the customer and the positioning of the intercession towards them. Afterward, to create an exchange we require to understand what needs to be left out by the target segment for undertaking the required behavior as the social marketers are pushed with the Marketing Mix to present complete elucidations that are striking and valued, helping to tempt both trial and recurrence behavior. Conclusively, keeping an eye on the competition makes people aware of the opposing burdens tackled by whereas social marketing has been deployed fruitfully to make a positive difference over varied settings, a bunch of healthy eating aims and populations (Gordon et al., 2006). There have also been some evident failures (O'Loughlin 1999, Prochaska and Sallis 2004; Sallis et al. 2003,Story et al. 2003). However, empirical proof rising from a recent methodical evaluation of fit eating involvements (look at Carins and Rundle-Thiele, 2014) proposes that social marketing intrusions retaining all the six social marketing standard principles offered by Andreasen (2002) are further prospective to alter the embattled behavior.

Carins and Thiele (2013) executed a methodical texts review of the strong consumption lifestyles apprenticeships in communal marketing from 2000-12, in that evaluation, they inspected interferences that self-realized as 'social marketing,' yielding three offerings to the figure of information.

First, the word 'social marketing' is repeatedly utilized to define actions better considered as social publicizing. Another, the six prime principles designated by Andreasen (2002) were not always visibly testified in the revisions studied. Nor were additional social marketing founding criteria structures (Lefebvre and Flora, 1988; French and Stevens 2006) described.

Those revisions which defined social marketing as an intentional, customer-based procedure (constant with acknowledged descriptions of social marketing) and that used this social marketing procedure to yield interferences that engaged a complete marketing mix, usually utilized more of

the founding standards. Third & the most significantly, these revisions also testified performance modification more frequently than the 'social publicists. Taken together, these consequences propose an indication that the use of Andreasen's six standard principles in social marketing can alter healthy consumption performance(s). But they resolved from the evaluation that there were scarcely any revisions where all the six criteria have been cast-off concurrently (Carins & Thiele 2013).

A disturbing consequence of the continued stress on communiqué is that numerous people separate from the marketing arena complicate social marketing through publicity (Grier & Bryant 2005, Walsh et al. 1993, Siega-Riz et al. 2011), & as the current evaluation proposes various scholars who call their effort social marketing, they don't use more than promotion or communiqué. This is possibly compounded by the point that: 'Too few social marketing efforts expand beyond 1P marketing struggles that favor communication policies and automobiles – public service statements, prints, brochures, public relations, infotainment, social and portable media' as so articulately specified by Lefebvre(2011), but also eminent by others(Grier and Bryant 2005).

In his argument of the position of each principle, Andreasen also pressures the necessity to transfer beyond publicity, where 'the influence of the method is manifested' (Andreasen 2002). Alden et al. (2011) also go even advance signifying that though it is important for customers to obtain reliable info and communications, statistics provision and schooling may be top left to community health and training and that marketing exertions may be well directed at introducing new conduct and boosting recurrence behaviors. Despite our information that publicity alone is less operative than interferences linking a full marketing mix, it is concerning to realize the grade to which communications based on only one P of the marketing mix are enduring to be functional in the strong consumption space.

Profitmaking marketers utilize a mass of methods that range past communication (e.g., valuing, sensual appeal, product shoving, advertisings, packaging, and retail exhibitions) to effect eating picks. The quantity of marketing mix fundamentals cast-off by profitable marketers meaningfully outguns social marketing determinations that are limited to communication.

Till now, Marketers plus customer investigators are powerless to quantify the marketing significance in the lives of customers efficiently, particularly when it comes to the examination of executive implications. For marketing, the idea of well-being is in initial stages, since its chief

objective is to please the wants of customers through purchase (Andreasen, 1994; Bergadaà, 2004). Though, the social marketers and public fitness establishments remain lively, which can be gestured from the brawl of New York City, as they sought to get 16 oz soft beverages banned (Saul 2012) which was upturned by the law court (Hughes 2013). Likewise, in California State of USA, the nutritious tags for sugary drinks are utilized in the formula of cautionary symbols like tobacco produces. Witkowski (2007) specified that persons might not be persuaded that food business establishes more advantages compared to tobacco businesses, but the consistent food marketing mix choices cause austere fitness issue to lots of customers across the sphere.

Seeing the continued development in bulky and obesity, the efficiency of behavior alteration apparatuses comprising social marketing can be confronted by opponents. While a variety of behavior alteration tools are existent (e.g., teaching, lawmaking, and community marketing) to recompense the rising cumbersome problem, the scale of a stroke happening may not reproduce the atrociousness of the problem, signifying there is a necessity for a better logic of earnestness (Carins and Thiele 2013)

Indeed, there have been concentrated struggles to solve unsuitable food eating (and fatness) over individual-level interferences that limit specific diets, define measures of other diets and need a high level of self-discipline but seeing the exponential development of plumpness all over the sphere the approaches of restricting the eating numbers and struggles for dropping the growth of plumpness rate does not appears to work thriving.

Given continuing advance in weighty and fatness, it is vital to have an undeviating exertion to refining consumption behavior, and it is recommended that other social marketing exertions are necessary (Carins and Thiele 2013). There is no such object as a silver bullet "one size fits all" method to dipping obesity. Reasonably, obesity has the stamps of a wicked issue. Wicked issues are characteristically multi-causal and more problematic to resolve than others (Carvalho and Mazzon, 2013; Kennedy and Parsons, 2012). The obesity research effort has risen exponentially over that past decade and has involved 42 different disciplines (Khan et al., 2016). This plethora of studies conducted through a diversity of restraints specifies that a multi-disciplinary method may not be sufficient to make significant developments to report obesity, instead a trans-disciplinary way is wanted, where separate constraints halt trying to whittle out a niche in the jam-packed

health universe, dangle their punitive partialities, comprehend the responsibility of other selfrestraint and work collectively to generate something novel to solve the obesity issue.

Wicked issues such as fatness need activities that are based on multiple levels, multi-directional and corresponding (Daellenbach and Parkinson, 2017), and they require understanding of the actions of multiple inter-related participants within a symbiotic, unified, complex scheme, that is continually altering, and consequently may yield a long while to stabilize (Kelly et al., 2016; May and Previte, 2016). A significant body of proof proposes there are numerous barricades to admittance and ingesting of a healthy régime, even when individuals have a penchant for consuming well (Fielding and Simon, 2011). In a transfer away from neoliberal methods, administrations and policymakers have a part to show in elating these fences to authorize and allow individuals to not only immediate healthy likings but to indorse healthy adoptions.

The critics raised not only various questions towards marketers but also towards academic researchers: Are researchers, belonging to the field of consumer behavior and marketing, going to change their vision, when it comes to the well-being of consumers? Are they focusing on research areas that will benefit consumers? Are they working on identifying and solving the most pressing consumption problems? These questions are surely answered through the introduction of Transformative consumer research (TCR),

# 1.2.2 Emergence of new movement under the umbrella of social marketing

Considering the growing problems resulting from food consumption, the current previous perspective of social marketing does not fully reflect the wicked issues that social marketers experience in a complex network of interrelated stakeholders (Gummesson, 2008), and social marketing literature had not gone much further than observing that multiple stakeholders are involved in wicked problems.

Moreover, it was important for social marketers to understand the need for a more nuanced perspective within the social marketing discipline that recognises that stakeholders are interrelated and therefore social marketing field realised the need for a transformation considering its size, scope, stature and impact due to a variety of factors and one of the most significant transformation

in the field of social marketing is the transformation of the structural change which has resulted in the emergence of a new academic movement under the umbrella of social marketing called Transformative Consumer Research or TCR movement (Pechman 2015), spearheaded by the Association for Consumer Research (www.acrwebsite.org). TCR serves as a bridge to resolve the dilemma between marketing and the public regarding consumption issues.

### **Section 2: Transformative Consumer Research (TCR)**

Business academics have long tried to make an impact on business practice with their research. Increasingly, however, business scholars are calling for investigation that also affects consumer and societal wellbeing (Anderson & Ostrom, 2015). This interest in enhancing individual and collective well-being is not new. Decades ago, Andreasen (1975) highlighted the problems of the poor and the social inequities they face. The early founders of the field of consumer research also called for a scholarship with a public purpose (Kernan, 1979). These interests continue today as researchers unearth the subtle racial prejudices that affect fair business lending practices (Bone, Christensen, & Williams, 2014) or document the consumption adversities of the poorest consumers (Martin & Hill, 2011).

What is novel is that some of these researchers are organizing together to build new ways of conducting business research that is potentially more influential (Mick, Pettigrew, Pechmann, & Ozanne,2012). This new academic movement is called the "transformative consumer research" (TCR) movement (Mick, 2006), and researchers from around the world are uniting for the explicit purpose of advancing consumer well-being (Davis, Ozanne, & Hill, 2016). Specifically, researchers are collaborating to study the concrete social problem and working together in larger teams over several project cycles (Crockett, Downey, Firat, Ozanne, & Pettigrew, 2013).

#### 2.1. BACKGROUND OF TCR

David Mick familiarised academic researchers with a new research movement while sharing his vision for a new research agenda in his 2005 Presidential Address at the Association for Consumer Research conference. He defined TCR as research that examines social problems and endeavors "to respect, uphold, and improve life concerning the myriad conditions, demands, potentialities, and effects of consumption" (Mick, 2006, p. 2).

According to Mick, sound study, not only focuses on ways of influencing consumer behavior but also on resolving the problems faced by consumers. TCR's objective is to increase consumer wellbeing with the help of rigorous methods and theories (Mick, 2006). TCR has been able to unite all the researchers and consumer behaviorists from various fields on a single platform and involve in conducting studies to resolve fundamental problems and explore opportunities to improve the lives of consumers facing multiple issues in a consumption-driven society (Mick, 2006).

"Doing good" is turning out to be a fashion in the world of business (Gorge, Özçağlar-Toulouse, & Toussaint, 2015). Therefore, TCR is more focused on understanding the consumption-related issues of consumers to propose better solutions for their benefit at large and less on the benefits of business organizations.

TCR has been recognized as a unique theory-based methodology of research, owing to the persistent research efforts in this domain for almost a decade now. It's been the most favored method to investigate the functional role of consumption in various social issues influencing our society at large; whether it's the consumer behavioral issues related to living beyond means, overconsumption issues resulting in obesity or the underconsumption problems represented by hunger, homelessness, and poverty.

Many researchers, though not all, try to understand social problems as embedded in social and cultural contexts that have meanings for consumers. Unlike traditional approaches to research, however, TCR academics are experimenting with forming research partnerships with consumers and relevant stakeholder organizations. These TCR researchers aim to resolve tensions that often exist between rigor and relevance by working more closely with partners who have first-hand experience in trying to solve problems (Reibstein, Day, & Wind, 2009). Researchers who forge partnerships benefit by co-learning—the study is informed by practical insights from the field, and

the resultant findings can be immediately put into the hands of stakeholders who can act on the research.

Importantly, TCR brings scholars together to work on shared problems for more across-the-aisle conversations spanning theories, methods, paradigms, academic networks, and countries.

## 2.2. TCR ORGANIZES TO EFFECT MORE SIGNIFICANT SOCIETAL IMPACT

Transformative consumer researchers are part of a global trend among researchers and institutions that want to publish not only their work but also assess the societal benefits of this work. In a recently published article, Davis and Ozzane (2018), found encouraging evidence that TCR and relational engagement have a high scholarly impact and are more societally influential.

The international business school accreditation body, the Association to Advance Collegiate Schools of Business (2013), argues that high-quality intellectual contributions should affect practice. Academic institutions, national and state governments, and private and public donors are also demanding more evidence that the research they fund is positively affecting society (Wiek, Talwar, O'Shea, & Robinson, 2014). Some countries have formalized the need for such evidence. For example, the United Kingdom allocates funds to projects with evidence of social impact based on their Research Excellence Framework. Yet the field of social influence is nascent, and currently no transparent best practices exist, though several approaches are available (De Jong, Barker, Cox, Sveinsdottir, & Van den Besselaar, 2014; Morton, 2015; Spaapen &van Drooge, 2011; Weiss, 2007; Wiek et al., 2014).

# 2.3. TCR AIMS TO MAXIMIZE SOCIETAL IMPACT THROUGH RELATIONAL ENGAGEMENT

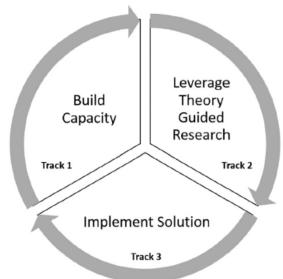
TCR, as an academic movement, is united by the collective commitment to enhance well-being as its societal impact. In Table 01, the list of topics across the five conferences provides clear evidence that TCR researchers aim to effect positive change by solving real-world problems.

Years	Topics
2009 Tracks	Developing markets; Food; Health; Immigration; Poverty; Materialism; Social justice;
(N=9)	Sustainability; Vulnerability
2011 Tracks (N=9)	Addiction; Adolescent risk; Food & health; Materialism; Innovative research methods; Multicultural marketplaces; Poverty & subsistence marketplaces;
	Sustainability; Transformative services research
2013 Tracks (N=9)	Developing markets; Ethnicity; Family; Health & nutrition; Innovative research methods; Materialism; Poverty; Sustainability; Vulnerability
2015 Tracks (N=22)	Alternative food systems; Children & materialism; Crimes of omission & commission; Environmental sustainability & justice; Gender; Health multimorbidity; Life satisfaction; Mindfulness; Maladaptive behaviour; Moral self-regulation; Narratives in non-profits; Poverty: Intersectional poverty;  Poverty: Agencies & ecological space in poverty; Poverty: Consumer psychology of poverty; Religion; Social conflict; Stigma & the marketplace: Identity; Stigma & the marketplace: Practices; Teaching; Transformative services & justice: Services;
	Transformative services & justice: Vulnerability; Wastefulness
2017 Tracks	Art; Collaborative health & finance; Consumer vulnerability; Culture industry;
(N=24)	Displaced people; Experiential food; Financial literacy & poverty;
	Financial literacy; Gender; Health; Hunger; Megacity; Modern slavery;
	Multiculturalism; Obesity; Poverty alleviation; Religion; Stories & stigma;
	Subsistence & sustainability; Sustainable healthcare; Sustainability; Vaccinations; Violence & women; Women's health

Table 01: the list of topics discussed across the five TCR conferences since 2009

Recently, some researchers in TCR have proposed relational engagement as a way to increase societal impact (Ozanne et al., 2017). Here, relational engagement means including both critical academic and non-academic stakeholders throughout the research process, from (1) knowledge creation, (2) awareness, and (3) use of research, to the final stage of (4) societal benefit; a relational engagement approach encourages the co-creation of research with audiences that transcend academia, as shown in Figure 03.

- · Identify a social problem
- Build a team with diverse expertise on the problem
- Seek out an organizational partner working in the area
- Engage in dialogue building both the social capacity and an initial conceptual framework



- Identify a theory-guided research problem with potential for societal benefit
- Partner with a team of experts including practitioners
- Design a study and collect data to test and refine the theory

- · Identify a theory-guided and empirically supported idea for application
- · Partner a team of experts and organizational partner
- · Test and refine the idea within a real world application
- · Look for scalable opportunities

Figure 03: TCR's relational engagement for social impact

Relational engagement may also mitigate the risk of harm in the research process (Davis & Ozanne, 2017). By involving the people who are most affected by a problem in the research design and implementation, researchers can learn more quickly about ways the research process or outcomes can unintentionality hurt the individuals and communities they are trying to help. In the end, they can maximize the benefit of their research's findings by interacting with the people most interested in the results of the study.

### 2.4. MAJOR TCR DOMAINS

Considering the impact of TCR research and following its objective to collaborate with various stakeholders to resolve consumption issues face by consumers in multiple domains, the tracks in which TCR researchers were working has increased from 9 to 24 in a small span of 10 years.

TCR is a broad field, and it covers all the consumption-related problems faced by consumers at an individual and social level. Although there are various tracks on which TCR work, however, we shed some light on the prevalent exploration subjects in TCR which are considered to be most dominant by the researchers, i.e., poverty, consumer rights, materialism, sustainable development,

risky Consumption, obesity, the experiential pleasure of food and nutritional label policies and consumer decisions.

### **2.4.1. Poverty**

Underprivileged consumers signify an exponential growth in the market (Coimbatore Krishnarao Prahalad, 2004) in two facets: poverty in the subsistence markets(Madhu Viswanathan, Sridharan, & Ritchie, 2010) and the poor from developed country markets(Piacentini & Hamilton, 2013). Research in the markets of poor consumers have been increasing, and the researchers have found a variety of perspectives. Research has identified various characteristics of poverty and define it as social, cultural and economic hardships which puts consumers in a vulnerable condition and feel disadvantaged (Baker et al., 2005), specially when it comes to relationship with the structure of the market and the market actors(Gauri, Sudhir, & Talukdar, 2008).

No matter how poor a person is, he or she has to consume for survival as this is the harsh reality and misery for humanity. More than 50% of the world population is living on less than \$2 a day, and out of 6.5 billion people, more than 4 billion people belong to subsistence marketplace(Madhubalan Viswanathan & Rosa, 2007), which is also called the bottom of the pyramid market(Coimbatore Krishna Prahalad, 2006).

Looking at the significance of this market and the need of the hour, all the management, marketing, and consumer researchers have started to learn about the lives of poor people and the strategies for poverty alleviation(Chakravarti, 2006; Mick, 2006; Rosa & Viswanathan, 2007). TCR has the agenda for improving the lives of the people by overcoming the negative aspects of consumption (Mick, 2006). Therefore, the steps taken by TCR scholars are handy and will surely provide significant insight into the alleviation of poverty via the consumption lens.

### 2.4.2. Consumer Rights

Studies based on consumer rights are concerned about consumer freedom. Companies were using the personal data of consumers for their interest, which made the researchers highlight the protection rights that consumers possess (Dumoulin, Miltgen, & others, 2012). Companies collect data from consumers and shed light on the relationships between them. Furthermore, research also emphasized the lack of existence of specific regulations, despite policies, which assure and respect the rights of consumers in online transactions. Similarly, existing charters are supporting the

companies more than it does to consumers, which highlights its lack of clarity. Researchers also discuss consumer information rights based on their access, fairness, and clearness at the same time (Gorge, Özçağlar-Toulouse, & Toussaint, 2015).

### 2.4.3. Materialism

Materialism is a well-researched topic in consumer behavior (Belk, 1985; Richins, Dawson, & others, 1992) but TCR has given a new dimension to it by linking the concept of materialistic consumption with consumer well-being (Burroughs & Rindfleisch, 2002). Researchers argue that materialism is a 'trap' and refers to the negative side of consumer behavior, which often worsen consumer well-being (Burroughs & Rindfleisch, 2011). Various strategies have been formulated to overcome this trap: Institutional role for eliminating the conflict between materialistic environment and the objectives of wellness; encouraging consumers for alignment of individual and collective interests and also aligning regional steps with the global consequences (Gorge et al., 2015).

Researchers claim that the acquisition of goods and services leads to happiness, especially for consumers belonging to the United States of America. Moreover, it's the reason behind the dominance of consumer culture and its construction. According to Wilkie & Moore (1999), the ease of substantial access to products such as Televisions and Refrigerators has become the reason for the wellbeing of some consumers. However, even after the significance of prosperity and materialism, the well-being studies take a different perspective by going one step further from this narrow mindset, and consider the idea of welfare to" being well", in order to make it the part of a vision, which is multidimensional and larger than monetary welfare and vocative utility (Dubois, 2011).

Materialism literature within TCR shows that there exists a negative relationship between wellbeing and materialism(Burroughs & Rindfleisch, 2002). As a result, it exposes a thought based on adverse outcomes(Burroughs & Rindfleisch, 2011). Additionally, the models in the society, which are based on the values of materialism is not considered to be in favor of responsible behavior and the process of sustainable development (Kilbourne et al., 2009).

### 2.4.4. Sustainable Development

Various studies were conducted on specific actions of consumers favoring a sustainable lifestyle even before TCR started to raise a question about the materialistic way of life (Mittelstaedt, Shultz, Kilbourne, & Peterson, 2014; Varey, 2010). There are three aspects of TCR on sustainable development which are worthy of discussions. Firstly, the requirement for a change in the way of living, and the values consumers possess needs to be supported by a difference in the political, social and economic system (Kilbourne et al., 2009). Secondly, citizen-consumers, referring to a broader concept for the need for enhancing sustainability and responsibility (Varey, 2010). Lastly, the research has started to raise the question on consumer needs, materialism, and sustainable development (Mick et al., 2011).

Moreover, TCR has taken a perspective of raising managerial questions related to sustainable development, primarily how marketers perform and communicate their actions about sustainable practices to consumers and at the same time avoid downsides of greenwashing.

### 2.4.5. Risky consumption

Consumers are exposed to various legal and health-related risks based on their consumption and different lifestyles associated (Forbes & Lyon, 2006). Many addictive behaviors have been explored by the researchers and public health authorities in the recent decade that harms consumers. Owing to the circumstances, TCR plays a significant role in the well-being of consumers who are involved in risky behaviors that are harmful to the individuals and the society on the whole (Faber & Vohs, 2011). Gambling addictions (Cotte and LaTour, 2011), compulsive buying (Ridgway et al., 2008), or tobacco and alcohol (Sussman, Lisha, & Griffiths, 2011), personal debt (Soman et al., 2011) are few of many examples relating to risky consumption. The method backed by TCR helps such at-risk and vulnerable consumers to control their habits and being able to manage their decisions (Soman et al., 2011) and also increasing mindfulness of the segment of the population at risk (Ridgway, Kukar-Kinney, & Monroe, 2008).

### 2.4.6. The experiential pleasure of food

The experiential pleasure of food domain focuses on the hedonic and epicurean aspects of consumption, which proposes that the pleasure-driven through experiential use of food leads to moderate consumption and well-being (Cornil and Chandon 2016). This aligns with the previous

marketing research about comfort food preferences across age and gender (Wansink, Cheney, and Chan 2003), the French paradox of meal cessation (Wansink, Payne, and Chandon 2007), wine and sensory expectation in North America (Wansink, Payne, and North 2007) and the impact of design on over-consumption (Wansink and Chandon 2014). In general, this TCR theme concentrates on the role of the experiential side of pleasure in steering healthy consumption routines among various cultures of food. Moreover, following the very concept, Cornil and Chandon (2016), stated that pleasure could nudge consumers towards healthy eating behaviors via decreased portion size, which eventually leads to enhanced well-being for consumers.

### 2.4.7. Health, Overconsumption, and Nutritional labels.

TCR classifies this theme as a social approach and has been taking and implementing concrete measures with the help of marketers and health care providers to apply better healthcare, nutritional labeling, and prevention policies (Scammon et al., 2011).

Obesity has become an epidemic issue. It appears simple; i.e., plenty of food with quite less activity, though it's not. Consumers love to eat tasty food in more quantity and prefer not to spend more effort(energy, money, time)(TCR Conference Track, 2017). Consumers' preferences depend not only on the personal influences like family but also on social forces in the form of food marketers and religion, etc. and these influences intermingle in a very multifaceted manner. TCR researchers have also highlighted the issues and problems related to obesity in western society, especially. There are so many studies that have been conducted so far, such as enhance in the portion of food intake and the increased frequency of food consumption (Sharpe et al., 2008). Though there can be various culprits behind this worrying phenomenon, the food industry has been held responsible due to the introduction of increasingly upsized, "supersized" beverage and food options (Spurlock 2004). The portion sizes of sugary drinks, Mexican food and hamburgers have enlarged substantially by 52%,27%, and 23%, respectively over the past 20 years (Forsen and Popkin 2003).

Food choice and consumption decisions are consistently repetitive activities of consumers' daily lives, and consumers take over 200 such decisions a day (Wansink and Sobal 2007). TCR can raise awareness among consumers and help them in adopting a balanced behavior. It has been able to address specific sensitive issues for consumer well-being over the years such as food preparation and observation (Scammon et al., 2011), lack of food intake literacy among consumers(Chandon & Wansink, 2007), and proper labelling on food (Grunert, Bolton, & Raats,

2011). Nutritional marketing (Grunert et al., 2011) and health prevention has emerged as new research domains in the recent years which is further highlighted by the work of (Grier and Moore, 2011) on designing advertising campaigns for increasing awareness among consumers for eating healthy food, which abates severe diseases like diabetes, cancer and heart problems. However, it is unfortunate that we have mainly embraced an individualized policy to health. Such a thought can be associated with healthism, which refers to an individualized notion of health with an excessive level of health responsibility on the part of individuals(Crawford, 1980).

The lack of food labeling knowledge has been claimed to be the prime reason for problems associated with obesity and weight gain (Chandon & Wansink, 2007). This signifies the role played by all the restaurants and food-producing companies in allocating the daily dietary demands of consumers. All the companies and restaurants are required to provide nutritional information on products and restaurant menus according to the Affordable Care Act of 2010(TCR Conference Track, 2017).

A growing body of literature investigates the increasing exposure of nutritional information in various restaurants and retail settings, using different research methods to understand the influence of nutritional information on choice and consumption and its linkage to health and consumer well-being. More research is required to investigate what other information will be necessary to facilitate consumer's decision making apart from calorie counts; and how adjustments in portion sizes, food types, and provision of healthy or less healthy options influence consumer's decision making (TCR Conference Track, 2017).

The food industry has been held responsible due to the introduction of increasingly upsized, "supersized" beverage, and food options (Spurlock 2004). Moreover, the value offered by these upsized packages undeniably is consumers' top of the list reason to justify their purchase (Vermeer et al., 2010). Though such kind of "supersizing" trend, is often witnessed in the developed world, especially in the United States and it's considered as one reason behind rapidly increasing obesity rates (Rozin et al., 2003),but it has also become a common trend in the rest of the world including the developing countries such as Pakistan and India. Moreover, the research in that regards becomes even more crucial because the consumers are not well informed about their consumption norms in less prosperous world and may not have the skills to withstand the marketing flatteries like other well off countries, who themselves are not sure about the food claims (Redmond 2005), hence the postulation of "rational consumer" may instead be fragile.

The above discussion signifies the role of our food-related decisions on health and well-being and building on this and taking the inspiration from the TCR movement; this thesis focuses on a very crucial problem of overconsumption and obesity. We will focus on the opportunity of resolving the dilemma of marketing and public interest through the lens of TCR.

More broadly, we aim to explain the factors that are responsible for the consumers' decision to opt for the larger packages or containers and what can be done to nudge the behavior of consumers towards the better options; through enhanced awareness among consumers with regards to well-informed food choice and consumption quantity decisions, to encourage the norm of moderate consumption amongst them.

### **Summary of chapter I**

We provide the background of the research problem and motivation for the current research topic in this chapter.

The section one of this chapter discussed the definitions and impact of social marketing in consumer research especially when it comes to wicked consumption-driven problems such as obesity, and we also talked about the operational criteria of social marketing and its effectiveness in food research.

In the second section, we discussed the emergence of a new academic movement in the form of Transformative consumer research. It started with the introduction and background of TCR, and it also described the social impact and relational engagement of TCR research. Moreover, various domains of TCR were discussed which systematically lead to the motivation for the selection of a specific area related to food, health and nutritional labels for the current study, considering the fact that food marketing and overconsumption has been recognized as one of the significant contributors to the problem of obesity (Chandon and Wansink 2012; Grier et al. 2007)

## PART I: STATE OF ART



### **CHAPTER I:**

**Social Marketing and Transformative Consumer Research (TCR)** 

### **CHAPTER II:**

**Functions of Food and Food Myopia** 

### **CHAPTER III:**

**Consumer Perceptions of Food Consumption** 

### **CHAPTER IV:**

Qualitative Study and Hypothesis development

### **CHAPTER II:**

### FUNCTIONS OF FOOD AND FOOD MYOPIA

### **Introduction for Chapter II**

This chapter comprises of two sections, i.e., functions of food consumption and Food myopia. Section 1 discusses explicitly the meaning that consumers derive from food consumption and how do they perceive food in their lives. It also sheds light on the various goals that consumers have behind food consumption. For instance, some consumers focus on the functional aspects of food as they eat to seek practical benefits such as staying healthy. Others are more inclined towards the symbolic aspects of food as they consider food as a source of social bonding as the food helps them socialize. Whereas food also serves the hedonic goal of consumers, as it allows them to enjoy the sensory experiences of eating. This section also discusses the automatic and deliberative influences, which has the power to influence consumers' food choice and consumption quantity decisions. Moreover, we have also described briefly about the cultural perceptions related to food and how people from various parts of the world interact with food.

The 2<sup>nd</sup> section of this chapter sheds some light on a novel concept called food myopia which explains the narrow-sighted tendency of consumers to focus on the immediate benefits or gratification obtained by consumption of food at the cost of long-term consequences. This section describes the reasons why consumers behave myopically when it comes to hedonic food options and how it affects their food well-being.

### **Section 1: Functions of Food**

### 1.1 MEANING OF FOOD

How would you describe your relationship with food? Does this question bring lots of exciting answers for consumer researchers? Some consumers define food as a source of living, something that they need to survive, whenever it is convenient to access and eat, as it does not require much thought because of it being a necessity. While, for other consumers, food is their love of life, something that is a source of taste and pleasure. Food is also considered as a source of strengthening the relationship among families, having all the gathering centered on a food table. Some consumers believe that food is a reward through which they celebrate their special moments on various occasions, while others consider food as their partner as they consume food when they are lonely, stressed or getting bored. Moreover, consumers often find food as a source for enhancing their health outcomes.

Food is not just a matter of nutrition, but also a symbol, myth, and an expression of identity(Atkins & Bowler, 2001). The meaning that consumers associate with food products and their consumption is a significant aspect of postmodern consumers, as they shift their food choices and the pattern of eating as per their lifestyles and identities (Firat & Venkatesh, 1995). Moreover, Cook (2007) states that food should not be considered only as an old product to eat and live, instead focus should be eating well to flourish, as food is a useful way of negotiating in the power struggle. Research indicates that consumers, especially in European markets, are more concerned and interested in healthy eating campaigns because healthy eating interest is good for consumers and their overall wellbeing (Rudawska, 2001).

Based on the meaning that consumers assigned to the food, there are hardly occasions when they consider food as only a source of survival as the need for pleasure from food comes in to play more than they need for survival from it. Moreover, consumers' decisions regarding their food choices also depend upon the goals they wish to achieve from food consumption as discussed below.

### 1.2. FOOD GOALS

When it comes to food consumption, consumers have various goals, as they eat a variety of foods, in multiple settings for multiple purposes such as functional goals, symbolic goals, and hedonic goals.

### 1.2.1. Functional Goals

Some consumers usually examine their consumption of food to improve their health and reduce health-related risks at the same time (Vallis et al., 2003). They often monitor their food consumption patterns, intake of sugar, fat, fiber, etc., as they often observe how much calories they gained and how much to burn, to make sure they stay healthy and fit. According to(Block et al., 2011) focus on food and wellbeing help consumer to develop a healthy relationship with food.

### 1.2.2. Symbolic Goals

Food also serves the purpose of socializing as consumers also nurture their social relationships via food. Family bonding is strengthened among many cultures by the rituals of eating together(Motley & Perry, 2009). Consumers also express their self-identity and self-control through their consumption of food, as they adjust their food consumption according to people they eat with, as the food also displays the aspects of an individual's image, for instance, how much quantity of food we consume varies, if we are dining with someone having opposite sex(Allen-O'Donnell, Cottingham, Nowak, & Snyder, 2011).

### 1.2.3. Hedonic Goals

Some consumers give more importance to the enjoyment that they often seek from the sensory experience of eating. Companies often strive to add various flavors in their products to target such a consumer segment (Gottfried, 2010). This need for pleasure from food consumption lead consumers to enhance their caloric intake, as they start focusing more on the enjoyment aspect of food than health (Mela, 2006a). According to (Block et al., 2011), this relationship between pleasurable food experiences and consumer health is crucial for consumer wellbeing on the whole. In contrast, researchers are also of the opinion that this

pleasure-oriented food relationship can have a positive influence on consumers, in the form of memories, social occasions with friends and family(Bublitz, Peracchio, & Block, 2010).

### 1.3. FOOD INFLUENCES

Our automatic and deliberative decision-making process also affects our food choices, as it depends upon our association and goal for food consumption as it eventually affects the wellbeing of consumers and overall life satisfaction.

### 1.3.1. Automatic Influences

Internal and external cues automatically influence our mind, which results in what and how much we eat. Such signals label various associations to food being "tasty = unhealthy heuristic" (Raghunathan, Naylor, & Hoyer, 2006). Similarly, external cues entice consumers to undermine the caloric intake in the foods they consume based on it being in a larger plate or bowl (Wansink & Sobal, 2007b). Moreover, package claims on food items such as "Low fat" (Wansink & Chandon, 2006a) or labeling it with names like 'Fruits' rather than 'candy chews' (Irmak, Vallen, & Robinson, 2011), creates a perception of healthfulness and encourage even to the diet-conscious consumers to overeat. However, such automatic influences can have a substantial impact on consumers, if appropriately applied, such as offering a smaller plate to reduce consumption and serving fruit rather than cookies (Wansink, 2010). According to Bernstein and Loftus (2009) techniques like Mental simulation and visual imagery can be applied to affect the apparent deliciousness or appeal for healthy foods such as fruits and vegetables (Bernstein & Loftus, 2009).

### 1.3.2. Deliberative Influences

Deliberative influence requires more conviction and effort to influence consumer food choices. It involves consumer education on healthy eating habits and the need for encouraging consumers to be more mindful in their food selection. However, researchers argue that overthinking about what to eat, when or not to eat, results in food cravings and overindulge for many consumers (Bublitz et al., 2010).

Furthermore, consumer motivation for healthy food selection also diminishes because of the inability to meet healthy food intentions(Herman & Polivy, 1980). Therefore, it can be said

that excessive thinking about choices of food does not result in a healthy relationship with food; as a result, the well-being of consumers is adversely affected.

Although it is quite common to categorize food as healthy vs. unhealthy and good vs. bad food, based on the choices and behaviors of consumers, diminishing the food and health-related decisions to dark and bright options created various barriers for positive outcomes in the long run. It is indeed problematic that we don't have universal consensus on which food is healthy and which is not. We are living in a world, where we have to face ever-increasing and complex food choices; one consumer segment considers some foods as healthy and other group does not. For example, a group of diabetic consumers will be more concerned about sugar and carbohydrates, while those consumers who are suffering from hypertension might be more focused on the content of sodium in their food. Moreover, another risk of dichotomizing the food choices, come from food labeling and packaging, as it encourages consumers to eat and consider the less healthy food to be more robust (Scott, Nowlis, Mandel, & Morales, 2008) and permit consumers to overeat(Wansink & Chandon, 2006a).

Both the automatic and deliberative influencers are used by marketers to encourage their behavior in the desired manner. Therefore they play a crucial role not only for marketers while designing their marketing mix but also for consumers to better understand the way they make their decisions. Because sometimes these influences might fly under their radar of consumers' consciousness awareness, which makes them take prompt food-related decisions that may go against them.

### 1.4. CULTURAL PERSPECTIVE ABOUT FOOD

Food is perceived differently in different cultures; for some consumers' food is a source of survival which they consume to improve and sustain their health and acquire as per convenience. While others consider food as a source of love, socialization, and pleasure. For some food is a source of bonding as in various collectivist cultures all the family members dine together to have food and celebrate special occasions and others prefer food when they are stressed and bored(Bublitz et al., 2011).

According to Rozin (2005), food consumption is a significant component of our cultures, as it is a social vehicle for forming social relationships and social distinctions. The culture-based mode of expressions is considered to be a fundamental slice of everlasting generation

based rituals (Rozin & Vollmecke, 1986) (Douglas, 1982). Furthermore, research also describes that the cultural factors also influence the way consumers make their food choices(Rozin & Vollmecke, 1986) owing to dissimilarities in both chemosensory perception and preference(Prescott & Bell, 1995). There are various dilemmas in a food culture such as traditional vs. novelty, indulgence vs health, care vs convenience and extravagance vs economy, and these dilemmas are the reason for the consumer and provider's struggle(Warde, 1997). Researchers also claim that consumers evaluate SWB differently, as they have varying significance for several measures(Diener & Suh, 2000).

Similarly, the culture of a country has a crucial role in the consumption of food and our perception of good food. For instance, in cross-cultural research (Synnott et al., 2007), described the differences between five European countries. He found that German and Scottish consumers prefer a healthy diet as they wanted the food to be as natural as possible. Similarly, Germans also preferred food to be more organic as they believed it to be good for health. Moreover, Italian and Spanish consumers, defined healthy diet based on balance and variety, whereas Germans and Scottish consumers associated it specifically to the consumption of fruit and vegetables.

The people living in the United States consider food as a source of health, whereas French people consider food for pleasure and take lesser stress concerning eating. Moreover, French people are healthier and enjoy food more, have thinner bodies, and live longer compared to Americans (Rozin ,2005). On the other hand, Pakistani consumers are food lovers, and they love to eat food outside for the sake of pleasure and convenience(Baig & Saeed, 2012).

We believe that the way consumers live in their countries and the consumption norms they have, influence the decision-making process, the food choices, and the quantity of food they consume. Hence, its role is essential in the context of this dissertation.

## Section 2: From Psychological Myopia to Food Myopia: A consumer Perspective<sup>1</sup>

### Introduction:

Pleasure and pain are the indispensable part of everyone's life. The proportionality of pleasure versus pain in one's life, depends on our personal experiences, as it has the tendency to significantly influence our future choice of pleasure or pain. Naturally, people prefer pleasure over pain for the obvious reasons; however, this short term or immediate inclination towards pleasure can bring adverse consequences in the long run. For instance, when it comes to making food choices consumers often prefer a tastier, convenient and less expensive food because the food marketers are experts at getting people to crave the food they promote(usually high in fat and sugar). As a result consumers behave in a narrow-sighted manner in which they start paying more attention to getting the immediate pleasure from the food they eat at the cost of long term consequences they can face in the form of obesity, diabetes and other epidemics(pain).

This short-sighted tendency is referred as psychologically myopic behaviour in which people are inclined towards immediate happiness or pleasure (Fehr & Tyran, 2001; Mischel & Staub, 1965; Ramanathan & Menon, 2006; Thaler, 1981) which reflects their eagerness (Koopmans, 1960; Loewenstein, 1996) and inadequate control on self (Ainslie, 1975; Baumeister & Heatherton, 1996; Carver & Scheier, 2001; Muraven & Baumeister, 2000; Wertenbroch, 1998).

Moreover, the tendency of getting the instant pleasure at the cost of enduring interests recognized as time-inconsistent preferences where present joy or happiness are given more importance by the individuals (Ainslie 1975) that could be injurious not only for that particular individual but also for society (Baumeister, Heatherton, & Tice 1994).

Owing to the consumer's tendency to paying more attention to instant pleasure at the cost of the long-term benefits of food, we discuss the concept of food myopia. When it comes to

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<sup>&</sup>lt;sup>1</sup> This section is based on a paper presented at the Academy of Marketing Science Conference (2019), Vancouver, Canada

hedonic products consumers are often caught under the influence of food myopia as they start paying more attention to the pleasure-driven from the consumption of such hedonic foods, moreover, supersizing of such foods brings more pleasure to the consumers; as a result, the consumption quantity increases which negatively influences their food well-being.

Consumers have a narrow-sighted approach towards food as they process fewer cues less well and take into consideration the most immediate gains of their food choices while ignoring the resulting consequences. The product attributes such as price, quantity, and taste become more salient, whereas the resulting consumption consequences such as health, well-being, and food waste become least prominent. We call this short-sighted tendency towards food as **Food myopia.** 

The concept of Food myopia is supported by Psychological myopia which refers to the individual tendency to emphasis more on information proximately linked to their judgment and overlook the less striking fragments of information(Hsee, Yu, Zhang, & Zhang, 2003). Consumers consider food as part of a low involvement decision despite making over 200 food-related decisions a day(Wansink & Sobal, 2007c). Hence consumers focus on information which is immediately related to them.

Our findings suggest that the consumers experience food myopia both in food choice and consumption quantity decisions. The food marketers are specialists at making consumers desire for the food they endorse, which is often higher in fat and sugar, tastier, more convenient, and lesser expensive simultaneously. Marketers capitalize on consumer's use of heuristics for product judgment and prompt decision making. Hence, these food attributes are made to appear more salient in the retail environment, and consumers start paying more attention to them, whereas they become short-sighted about the long-term post-consumption consequences of their choice (i.e., overconsumption, obesity, diabetes).

This makes the concept more relevant to our dissertation, as supersized pricing becomes one significant reason for consumers' myopic behavior.

### 2.1. RELATED LITERATURE FOR FOOD

### **MYOPIA**

Myopia (short-sightedness) and cure to myopia have been the topic of interest in many disciplines including psychology, economics, and marketing for more than four decades (Herrnstein and Prelec 1992; Hoch and Loewenstein 1991; Mischel 1974; Mukhopadhyay and Johar 2005; Schelling 1992; Wertenbroch 1998).

The concept of food Myopia is inspired by a variety of myopia literature. Myopia is a concept taken from medical sciences which refers to the refractive error; consequently, the person suffering is not able to see distant objects(cite). This very concept of myopia (short-sightedness or narrow sightedness) from pathology has inspired many researchers from other disciplines to carry out their research in the form of marketing myopia, alcoholic myopia, attentional myopia, retailer myopia, and psychological myopia, etc.

According to Theodore Levitt (1960) the marketing myopia as an inward approach that distorted the strategic vision of businesspeople and caused them to define their businesses narrowly in terms of products rather than broadly in terms of customer needs. In marketing myopia companies only considered the choices of their customers without focusing the hedonic needs followed by those choices (Kotler). Many sellers make the mistake of paying more attention to the specific products they offer than to the benefits and experiences produced by these products. These sellers suffer from marketing myopia. They are so taken with their products that they focus only on existing wants and lose sight of underlying customer needs. They forget that a product is only a tool to solve a consumer problem.

Similarly, there is another concept based on myopia called Alcoholic Myopia in which people pay attention only to the central and most relevant environmental signs or indications. Which constrained their ability to process or evaluate the rest of the aspects; as a result, they are left with only limited information in hand (Steele & Josephs 1990). This narrow sightedness limits an individual's cognitive ability to perceive and process the information in such a way that they start focusing only on the desired thoughts and lose sight of the other vital and crucial details. Moreover, the individuals under the influence of alcohol, "process fewer cues, less well" (Steele and Joseph 1988, p. 197). As a result, they pay more attention to most salient environmental cues and less or no attention to less

prominent cues. People try to take their attention away from the undesirable thoughts and mood states, and temporarily distract themselves from distant concerns(relief). Moreover, they lose sight of the long term consequences of their actions and could not act as per acceptable norms of conduct(excess)( Lac and Berger 2013).

Inspired from the notion of Alcoholic myopia, Ward & Mann (2000) proposed another myopia concept called Attentional Myopia in the context of eating and self-control. Attentional myopia is inspired by Alcoholic Myopia, where, people start paying more attention to the cues that are most salient in the environment, whereas they pay less attention to the environmental cues which are less prominent; this eventually makes them either restrain or enhance their self-control.

Similar to above-discussed myopia concepts is Psychological myopia which refers to a tendency in decision-makers to focus on information immediately related to their choice or judgment and to ignore other (e.g., background) information (Hsee et al. 2003). A prototypical example is money illusion, a phenomenon that has intrigued economists and psychologists alike for many years (Fisher 1928; Kahneman, Knetsch, and Thaler 1986; see also Fehr and Tyran 2001; Shafir, Diamond, and Tversky 1997). Money illusion is the finding that, in times of inflation, people overlook inflation rate information and base their judgment of a financial outcome on its nominal value rather than on its inflation-adjusted real value. For example, people find a 10% salary increase in times of a 12% inflation more satisfying than a 1% salary deduction in times of no inflation, even though the latter is better in real monetary terms. The money illusion reflects respondents' tendency to focus on the face value of the event to be judged and to ignore the background exchange relationship between the face value and the real outcome.

This body of research is premised on the notion that people are short-sighted (myopic) and easily tempted by hedonic "sins," such as overbuying (oniomania), splurging on tasty but unhealthy food, and indulging in luxuries (Baumeister 2002; Herrnstein and Prelec 1992; O'Guinn and Faber 1989). In day to day affairs where optimal choice is not apparent consumers have to choose among the available options either with instant benefits (leisure goods) or immediate cost (investment goods) (Wertenbroch, 1998). Literature suggests that the short-term attractions, excitements, and preferences lead towards regrets afterward on one's irresponsible act in the past.

We propose that the same myopia concept seems to underlie in case of food Myopia, as shown in the below-given figure 04.

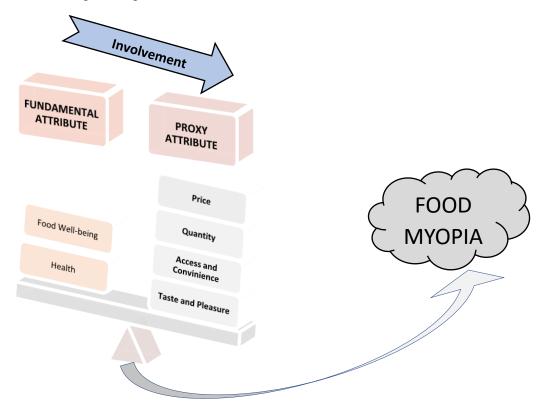


Figure 04: Conceptualising Food Myopia

In the case of food myopia, consumers have a narrow-sighted approach towards food as they process fewer cues less well and take into consideration the most immediate gains of their food choices while ignoring the resulting consequences. The product attributes such as price, quantity, and taste become more salient, whereas the resulting consumption consequences such as health and well-being become least prominent. We call this short-sighted tendency towards food as **Food myopia.** 

The consumers experience food myopia both in food choice and consumption quantity decisions. They are myopic about their food choices as they often opt for food products based on their attributes related to taste, price, and convenience whereas they are narrow-sighted in terms of consumption quantity because they often focus on the pleasure, driven from the consumption of more quantity of food especially in case of hedonic foods. Consumers rely on the external cues to decide how much food to eat, rather than relying on their level of hunger and appropriate consumption norms.

The next section will discuss each factor related to concept of food myopia along with its implications for consumers.

## 2.2. DISCUSSION AND IMPLICATIONS OF FOOD MYOPIA

Literature suggests that factors such as price, taste, pleasure, and convenience are given most important when it comes to food-related decisions, and consumers are insensitive to food attributes like hygiene health calories and ingredients, As Hsee et al (2013) suggest that under the condition of psychological myopia people pay more attention to the information related to judgment or decision at hand whereas they ignore the background information. This myopic approach towards food makes people pay more attention to the only those attributes of food which are directly related to immediate gains such as price benefit, taste, pleasure, and convenience to say the least. This notion is also supported by the concept of proxy and fundamental attributes (e.g., Keeney 1980; 1994; Keeney and Raiffa 1976). A proxy attribute is an indirect, and often more available, index of a more fundamental characteristic—a factor with which the decision-maker is more concerned. Similarly, the attributes like price convenience and taste serve as the proxy attribute of the fundamental attribute of health and well-being.

This gives a notion that people don't generally think about the long-term consequence of their food-related decision as they are more focused on the immediate pleasure derived from the consumption of indulgent foods.

#### **Price**

Consumers prefer low price products regardless of their quality, and ignore the aftereffects of that food. For instance eating unbranded, unhygienic food from street hawkers can be detrimental to their health. However, they still opt for it based on its price and taste but not hygiene; as a result, they do not pay much attention to the consequences of their choice.

Price places such an impact on the food decisions of consumers that they become short-sighted about the consequences that the decisions related to what and how much food to eat in a single consumption occasion can bring. As stated by Just and Wansink (2011) when people pay for food, they try to make their money's worth as they consider that price paid as

a sunk cost. Furthermore, consumers find healthy food to be expensive therefore they don't bother thinking of buying healthy. Consumers are so inclined towards the hedonic pleasure derived from the unhealthy food options, even the discounts on healthy products don't reduce the purchase of unhealthy food (Nelsin et al. 2009), this is probably because of the consumer intuition that unhealthy is tasty compared to healthy (Raghunathan 2006), besides, consumers seem to have learnt that the lower-priced foods have more hedonic satisfaction with the exception of wine, in which determination of taste is uncertain (Plassmann et al. 2008).

### **Taste and Palatability**

Consumers often enjoy the aesthetics and palatability of food, as these food characteristics give them more pleasure. Our food decision varies in terms of choice and quantity consumed as a function of taste or palatability; we eat more if we find the food to be tasty. Consumers have a general tendency to keep eating food unless feel satiated when the food is palatable. Whenever consumers have a stronger taste preference for the food, they always persist will less healthy food options considering the pleasure derived from the consumption of hedonic products (Herpen and Trejb 2011). Research suggests that majority of advertisements about food, precisely by fast-food restaurants states more consumption brings more pleasure (Harris et al. 2010). When consumers eat for pleasure, their one byte of hedonic food turns into five more; this tendency is referred as Hedonic hunger. Such a desire for taste and pleasure eating activates the reward system of the body which inspires overconsumption (Annie Hauser 2012).

Moreover, consumers often believe that they eat food because of hunger and they stop eating food when they are satiated, however, research suggests that the taste and variety of food can enhance the stomach capacity (Herman & Polivy 2005) and the marketers use variety in food options to enhance the point of satiation to overcome food monotony (Chandon and Wansink 2012). This results in consumers' myopic behavior towards food, as consumers do not willingly compromise to sensory food pleasures for potential health benefits (Verbeke, 2006).

#### Access and Convenience

In food marketing, the convenience associated with preparation and consumption is the most discussed trend. Most of the people consider food preparation as inconvenience except on special occasions (Cutler DM, Glaeser EL, Shapiro JM 2003). The food marketers are

focusing on improving access and convenience by providing ready to eat food (Chandon and Wansink 2012). The more comfortable purchasing, preparation, and consumption of food are one of the essential goals of food marketers. It is evident that the availability of food is the critical factor because without availability it cannot be consumed, and the variety of palatable food disturbs the organic food regulatory system (Cullen et al. 2003). For example, one study found that overweight men on a 3,000 calorie diet did not stick to their diet and consumed an average of 4,500 calories when given access to two free vending machines(Larson et al. 1995). The access to food has increased so much that one can find in at almost any place and anytime such as grocery stores, restaurants, gas stations, coffee shops, schools, workplaces, kiosks, and even hospitals and pharmacies.

Moreover, one can get the food delivered to home or anyplace with just a mare phone call in minutes. Research suggests that from 1982 to 2007 the expenditure on away from home food has increased from 16% to 42% in USA(Shames 2009) and hence this enhanced and easy access to fast food is considered as one of the significant contributors of obesity(Currle et al. 2010)

Supporting the role of convenience, studies have shown that increased consumption is primarily driven by increased consumption frequency rather than by increased consumption quantity per meal(Ramanathan and Williams 2007). The same survey showed that between 1978 and 1996 energy intake increased more for snacks (+101%) than for breakfast (+16%), lunch (+21%), and dinner (-37%). The gains were highest among married women who now spend less time preparing food at home. This may also explain why maternal employment is associated with childhood obesity (Anderson et al. 2003).

The food marketers are focusing on improving convenience by providing ready to eat food resulting in overconsumption (Chandon and Wansink, 2012). There is always a trade-off between convenient and healthy eating. Consumers are myopic in this regard; hence, they often choose unhealthier options over the healthier ones just because of their availability and convenience to buy, cook, or eat.

### Low Involvement

Findings also state that consumers make plenty of food-related decisions so frequently that they never realize the importance of making the right food-related decisions. According to Wansink & Sobal (2007) on average we make more than 200 food-related decisions a day.

Hence the consumers do not bother much about food decisions as they often remain and processed through subconscious What they care about is to get rid of hunger with tasty and palatable food. According to Cohen (2012), consumers often make food choices very quickly and, in the process, they never give much importance to the aftereffects of food.

Literature suggests that the decisions that are taken regularly become part of our routine whom we call habitual or routine decision making, and such choices hardly require much involvement. The reason behind such behavior is non-cognitive processing in which consumers rely on specific heuristics to guide their behavior as these heuristics take only minimum cognitive effort without our conscious awareness (Chartrand T 2005; Dijksterhuis et al. 2005; Bargh 2005).

Consumers appear to have low involvement with most low-cost, frequently purchased Products. In such cases, consumer behavior does not pass through the usual belief-attitude behavior sequence. Consumers do not search extensively for information about the brands, evaluate brand characteristics, and make weighty decisions about which brands to buy. How much time do we take deciding what food to eat vs. the time we take to buy a thing like cell phone or laptop? We are always narrow-sighted in food decisions because we never consider it essential, knowing it be a source of survival. Yes, we do take time deciding which restaurant or dish to choose, but we never bother thinking about the healthy aspect of food.

### Quantity

Over the years, marketing researchers have paid more attention to understanding the food choice decisions of consumers compared to the consumption quantity decisions. However, decisions related to how much food one should eat are as essential as what food to eat (Wansink & Chandon, 2014). Consumers eat more than 1000 meals a year; based on this they must know how much food they should eat, and they must see the point of their satiation beyond which the food does not bring pleasure in eating. Despite having so many meals a year, consumers are bad estimators of their food intake and are systematically biased, and this leads them to overeat (Wansink, 2016). Consumers do not even monitor the food they are eating; instead, they rely more on the serving size provided by the restaurants or the servers. Most of the consumers eat despite not being hungry when eating is no longer pleasurable, and they stop themselves from consumption when they feel satiated but to the point of feeling bodily uneasy (Poothullil, 2002).

Consumers often behave narrow-sighted in situations when they find better value deals where they can pay less and get more food quantity. Although they consider that they are following their value goal by gaining some financial saving, but in the process, they compromise on their health goals (Haws and Winterich 2013). They are myopic because they only see the immediate saving of 17% on the purchase of their upsized food products, whereas they could not see its impact on their health in the form of 73% more calories on each consumption occasion(Close & Schoeller, 2006). According to Hall et al., (2011), when consumers eat 100 extra calories per day (equals 8 oz of soft drink), they will gain themselves 6 lb of weight in a year.

#### **Health and FWB**

Humans need nutrition for survival, and the development of humans also requires the psychological nourishment in the form of "love, comfort, community and pleasure" (Block et al.,2011, p. 5). According to McMahon, Williams & Tapsell (2010), the food choice influences the lives of consumers, positively (health, energy) as well as negatively (obesity and other diseases). Due to the consumers' narrow-sighted approach and preference for short term pleasure over long term health they affect their overall food well-being adversely. Food can affect consumer well-being in a variety of ways, owing to its multidimensional nature. Firstly, food tends to influence our physical health, body functioning and secondly it can affect psychologically, influencing behavioral and cognitive functioning(Bellisle et al., 1998; Dye & Blundell, 2002; Gibson & Green, 2002). Moreover, foods are not only limited to essential nutrients, but it also serves various functions of our lives. Foods have symbolic, aesthetic, social and moral implications and it affects consumers' life appreciation by influencing their mood and emotions, as well as global life judgment and social relationships(Canetti, Bachar, & Berry, 2002; Macht, 2008; Rozin, 2005). Furthermore, food has been reported to affect global life judgments, as it has the power to change consumers' life satisfaction by upsetting our health. (World Health Organization, 2011).

Research suggests that there is a correlation between wellbeing and the consumption frequency of fruits and vegetables, and fast food (Chanfreau & Burchardt, 2008) as the former affects positively whereas later has adverse effects on consumer well-being. Food is such a vital part of an individual's life that their satisfaction with food life defines their food well-being (Grunert et al., 2007; Schnettler, Peña, et al., 2013).

Also, the way we socialize with family and our lifestyle of dining with families along with healthy eating habits lead to overall satisfaction and especially food-related life(Schnettler, Miranda, et al. 2013) and out of the various life aspects food is the one which affects the Subjective well-being of consumers (Grunert et al., 2007; Schnettler et al., 2013).

Consumers fascinate over calories, fat, and Body Mass index and are becoming obese. The current normative model of the relationship with food is partly liable for the emergence of a society of myopic eaters who eat the whole container of cookies considering them fat-free in pursuit of reducing calorie consumption. Consumers are always looking for short-term gratifications from food, and they also hold the intuition about healthy food to be less tasty (Raghunathan, Naylor, & Hoyer, 2006). Due to the variety of factors discussed above, such as price, quantity, accessibility, and convenience they pay less attention to the primary reason for food consumption that is survival. As a result, they stay myopic towards food.

This myopic behavior of consumers towards food requires a transformation in the older paradigm of food "food as health" and as suggested by Block et al. 2011, must shift to "food as well-being." "Food well-being" (FWB) is, defined as a positive psychological, physical, emotional, and social relationship with food at both the individual and societal levels"

More perspectives have been added to the FWB paradigm, especially in the form of experiential pleasure of the meal as it connects pleasure with FWB (Batat et al., 2019). Specifically, it encourages marketers and policymakers to better understand healthy eating with the help of food as pleasure, not a health warning. It follows a portion control mechanism for enhancing health and enjoyment via pleasure as a tool to reposition healthy consumption and enhance well-being (Cornil & Chandon, 2016).

The consumers often give more importance to the proxy attributes shown on the right side of figure 4, and most of their attention is placed on them while making their food-related decisions. Hence they ignore their health and wellbeing associated with food. This concept of food myopia also plays significant role in the context of this dissertation as it is focused on consumers' decisions related to food choices and consumption quantity. We can observe from the above discussion that the product attributes such as packaging, ease of use, price and the pleasure play significant role in myopic behavior of consumers in the context of food.

## **Summary of Chapter II**

Chapter II introduced food consumption in the first section, especially the way consumers associate meanings to it and also the kind of consumption goals they have. Moreover, it also sheds light on the automatic and deliberative influences on consumers which further explained why consumers are derived towards food be at their own choice or the preference of marketers due to their marketing strategies.

The second part of this chapter explored and discussed the novel concept of Food Myopia. Explaining that Consumers have a narrow-sighted approach towards food as they process fewer cues less well and take into consideration the most immediate gains of their food choices while ignoring the resulting consequences. The product attributes such as price, quantity, and taste become more salient, whereas the resulting consumption consequences such as health, well-being, and food waste become least prominent. We call this short-sighted tendency towards food as **Food myopia**. Moreover, it also explained that the consumers experience food myopia both in food choice and consumption quantity decisions.

## PART I: STATE OF ART



### **CHAPTER I:**

**Social Marketing and Transformative Consumer Research (TCR)** 

### **CHAPTER II:**

**Functions of Food and Food Myopia** 

### **CHAPTER III:**

**Consumer Perceptions of Food Consumption** 

### **CHAPTER IV:**

Qualitative Study and Hypothesis development

## **CHAPTER III: Consumer Perceptions of Food**

## Consumption

### **Introduction for Chapter III**

This chapter is divided into three different sections. Section 1 discusses consumers' price perception, and it also differentiates between price and the various definitions of value and how value is different from price. Moreover, this section also sheds light on the literature explaining how pricing and the package size are related.

Section 2 of this chapter is devoted to consumer goals related to food where our particular focus is on the health and value goals of consumers and how unique domain goals of finance and health are relevant to consumers in a supersized world.

The last section of this chapter is about anticipated consumption guilt which arises with the consumption of hedonic food products. This section explains the concept of consumption guilt and the situation in which it arises and becomes a barrier to consumers' decision-making process. This section sheds light on the topic of nutritional labels and their types along with its role in consumers' decisions related to food options. Moreover, this section also discusses the Means-End theory; it explains the historical development of the means-end theory along with its implications when it comes to food-related decisions.

## Section 1- Consumer Price Perceptions and Packaging

### 1.1. CONSUMER PRICE PERCEPTIONS

Product pricing mechanism is one of the most crucial decisions for managers (e.g., Gijsbrechts, 1993; Monroe, 2002), and price is critical cue for consumers in the marketplace, its prevalent impact can be observed from the fact that price cue is always available in most of the purchase situations(Lichtenstein, Ridgway, & Netemeyer, 1993). It characterizes the amount of economic expenditure forgone to involve in a buying transaction. Moreover, in the same sense, it signifies the amount that must be sacrificed, and hence higher prices adversely influence the probability to purchase.

Price plays both the negative as well as positive role in consumers' purchase decisions. Various studies have mentioned price as an intricate impetus as many consumers hold a perception regarding price in its negative role such that it refers to the expenditure/outlay of economic resources. For instance, many studies have discussed product quality being signaled by the price cue. On the other hand, price is also perceived to have a decisive role, such that higher prices positively influence the likelihood to purchase (Erickson & Johansson, 1985; Lichtenstein, Bloch, & Black, 1988; Tellis & Gaeth, 1990; Zeithaml, 1988). Moreover, Erickson and Johansson (1985) also examined the dual role of price cue and stated that the level of price perceptions negatively influences purchase intention and it has an indirect positive impact on purchase intention through perceptions of quality.

Shoppers in the marketplace are quite heterogeneous when it comes to their reactions and intentions towards price and price promotions (Dickson & Sawyer, 1990. p. 51). Building on this heterogeneity, Lichtenstein et al., (1993) further addressed consumers' perceptions about price in its positive as well as negative roles. They mentioned five constructs which are mentioned played and are said to play a negative role:

Value consciousness which refers to an individual's evaluation of price paid and quality obtained. Many of the researchers have defined the notion of value in the similar context for instance(eg, Lichtenstein, Netemeyer, & Burton, 1990; Tellis & Gaeth, 1990; Thaler, 1985; Zeithaml, 1988)

Price consciousness which refers to the extent to which consumers are inclined to pay low price (Lichtenstein et al., 1993), this definition is also supported by various other researchers(e.g., Erickson & Johansson, 1985; Lichtenstein et al., 1988; Kent B. Monroe & Petroshius, 1981; Tellis & Gaeth, 1990). Moreover, this term has been used by various researchers to mention numerous price-related cognitions (cf. Zeithaml, 1984)

Coupon proneness, which refers to the form in which price cue is illustrated (Lichtenstein et al., 1990, p. 56). Research suggests that an increase in sales resulting from the price in the form of a coupon vs decreased noncoupon price plays a more negative role(Cotton & Babb, 1978; Schindler, 1990).

Sale proneness, which is also conceptualized based on deal proneness is defined as "an increased propensity to respond to a purchase offer because the sale form in which the price is presented positively affects purchase evaluations.

It also holds the same rationale as coupon proneness, where consumers associated more sensitivity to price in its negative role when it's in sale form (discount form) compared to the regular price of the same product. For instance, product priced at \$1.99 in regular vs \$1.29 as sale price (Lichtenstein et al., 1993)

The perception of price may also be linked to a negative role because of Price mavenism, which refers to the individuals who become the source of providing the information related to product to others(Lichtenstein et al., 1993). This notion is also supported by "Market Mavens"(Feick & Price, 1987), who also desire to grasp all the necessary information related to market so as to disseminate that information to others in the marketplace.

On the other hand, there were two constructs which were aligned with the perception of price in its positive role are:

Price-quality schema which states that price cue plays a positive role for consumers who infers the quality of the product based on its price (cf. Erickson & Johansson, 1985). The consumers who perceive price in such a manner has a greater extent of seeing price more favorably owing to their increased quality perception for further monetary outlays(Lichtenstein et al., 1988). However, it also depends upon the product and situation(Kent B. Monroe & Krishnan, 1985), as various studies are in favor of the idea that some consumers use price as a universal signal of quantity in case of multiple situations and products (e.g., Lichtenstein & Burton, 1989;

Peterson & Wilson, 1985) and prestige sensitively, which refers to the perception of price cue based on what it signals about the purchaser to the people around, such that the people around might see person spending more on an expensive product to be a "big spender "and attribute it to his or her internal trait rather than quality of product that is, a correspondent inference attribution (Calder & Burnkrant, 1977; E. E. Jones & Davis, 1965).

### 1.2. PRICE VS. VALUE

#### **Price**

Customer insights of price, eminence, and value are reflected pivotal causes of spending behavior and produce selection (Bishop 1984; Doyle 1984; Jacoby and Olson 1985, Sawyer and Dickson 1984, Schlechter 1984), From the viewpoint of consumers, price is what is prearranged or foregone to find merchandise. This description is corresponding with Ahtola's (1984) statement against including financial price as a secondary level characteristic in multiattribute prototypes since the price is a "give" constituent of the framework, rather than a "get" constituent. Describing price as an expense is steady with conceptualizations by other valuing investigators (Chapman 1986; Mazumdar 1986; Monroe and Krishnan 1985).

There are two mechanisms of price: objective price, apparent nonmonetary price, and expense. Jacoby and Olson (1977) differentiated among the objective price (the original price of the product) and the supposed price (the price as determined by the customer). Objective fiscal price is regularly not the price fixed by customers. Some consumers may notice that the exact price of Hi-C fruit juice is \$1.69 for a 6-pack, but others may encode and recall the price only as "costly" or "inexpensive." Still others may not encrypt price at all.

A rising body of investigation provisions this difference between neutral and perceived price (Allen, Harrell, and Hutt 1976; Gabor and Granger 1961; Progressive Grocer 1964). Readings disclose that customers do not continually know or recollect the actual values of products. As an alternative, they encrypt prices in ways that are evocative to them (Dickson & Sawyer 1985; Zeithaml 1982, 1983).

Stages of customer consideration, mindfulness, and information of prices seem to be significantly lesser than essential for customers to have accurate inside locus prices for many produces (Dickson and Sawyer 1985; Zeithaml 1982). Dickson and Sawyer described that the sizes of customers inspecting prices of four kinds of goods (margarine, cold breakfast cereal,

toothpaste, and coffee) at point of purchase altered 'from 54.2 to 60.6%. Amongst the clusters of customers not checking amounts in these lessons, a large quantity (from 58.5 to 76.7% in the four product classes) specified that worth was just not significant.

Consideration to prices is expected to be superior for more magnificent priced packed goods, long-lasting goods, and services than for low priced drinks, but added influences in these categories -complication, lack of price evidence, and dispensation time required-may inhibit with precise information of prices. According to Becker (1965), fiscal price is not the only expense customers make to gain goods. Time outlays, search expenditures, and psychic budgets all enter one or the other obviously or obliquely into the customer's acuity of sacrifice.

### Value

Zeithaml in 1988 said what establishes value-even in a separate product grouping seems to be highly individual and eccentric. Forms of reactions from the investigative learning can be congregated into four customer explanations of value: (1) value is low price, (2) value is whatever consumer want in a product, (3) value is the quality I get for the amount I recompense, and (4) value is what I acquire for what I offer.

The diversity in meanings of value is exemplified in the following four definitions and delivers a part clarification for the trouble in theorizing and gauging the value concept in the investigation.

Value is a low price. Some defendants equated worth with the low price, representing that what they had to give up was most striking in their discernments of value. Hoffman's (1984), divulge the salience of worth in the value calculations of customers.

Value is whatever I want in a product. Other respondents emphasized the benefits they received from the product as the most important components of value.

This second meaning is fundamentally similar to the economist's sense of usefulness, that is, a distinctive measure of the use or want the satisfaction that results from consumption. This definition also has been expressed in the trade literature. Value has been well-defined as "whatsoever it is that the customer seeks in making decisions as to which store to shop or which product to buy" (Chain Store Age 1985). Schechter (1984) defines value as all factors, both qualitative and quantitative, subjective, and objective, that make up the complete shopping experience. In these definitions, value encompasses all relevant choice criteria.

Value is the quality I get for the price I pay. Other respondents conceptualized value as a tradeoff between one "give" component, price, and one "get" element, quality. This definition is consistent with several others that appear in the literature (Bishop 1984; Dodds and Monroe 1984; Doyle 1984; Shapiro and Associates 1985).

Value is what I get for what I give. Finally, some respondents considered all relevant "get" components, as well as all relevant ", give" components in the form of least money, more quantity by being economical and without having much waste, etc. This fourth definition is consistent with Sawyer and Dickson's (1984) conceptualization of value as a ratio of attributes weighted by their evaluations divided by price weighted by its evaluation. This meaning is also similar to the utility per dollar measure of value used by Hauser and Urban (1986), Hauser and Simmie (1981), Hauser and Shugan (1983), and others.

These four consumer expressions of value can be apprehended in one overall definition: perceived value is the consumer's overall assessment of the utility of a product based on insights of what is received and what is given.

This overall concept varies across consumers, as some may want more volume, while others seek high quality, still others convenience. When it comes to giving, some are concerned only with money expended, others with time and effort. Hence it can be stated that the value represents a tradeoff of the noticeable give and gets mechanisms.

These value triggers were present regardless of the way consumers defined value. Many consumers who identified value as low price reported using a coupon as a signal to low price without actually comparing the reduced price of the coupon brand with the prices of other brands, or they reported that "cents-off" or "everyday low price" signs or a private label brand generated the value perception.

Defendants who defined value in terms of what they wanted in products, cited small containers, single-serving portions, and ready-to-serve containers. Consumers who described value as the quality they get for the price they pay used gestures such as 100% fruit juice on particular or brand name on special. Finally, customers who defined value as what they get for what they pay depending on the form (frozen vs. canned juice) and economy-sized packages as signals.

Not all customers answered in this mindless way-many saw their role as an economical shopper to be vital enough to spend time and energy to weigh the give carefully and get components in their equations of value. Moreover, not all products are as simple or inexpensive as beverages. One would expect to find a more rational evaluation in situations of high information availability, treating ability, time obtainability, and participation in acquisitions.

#### 1.3. PRICING AND PACKAGE SIZE

Retailers often discriminate based on price to boost their revenues in the marketplace. They offer quantity discounts based on package size (Cohen 2002; Dolan, 1987). In the consumer-packaged goods industry, numerous package sizes are existing in categories like detergents, beer, paper products, peanut butter, and analgesics. The products having identical dimensions (e.g., brand name, ingredients, flavor), are often produced in larger sizes with a lower per-unit price. The motivation behind designing and offering products based on nonlinear pricing is market segmentation, which is also known as second-degree price discrimination (Moorthy, 1984; Mussa & Rosen, 1978). When retailers offer a range of package sizes, they let consumers segment themselves via self-selection of their chosen alternate based on their readiness to pay. There are several ways of price discrimination. Under "pure" third-degree price discrimination, prices differ crosswise stores, but their per-unit prices are identical athwart package sizes within each store. Whereas, under pure second- degree price discrimination, prices are similar crossways all stores, but per-unit prices contrast across package sizes (R. J. Khan & Jain, 2005; Pigou, 2017).

The manufacturers of food and beverages and restaurants are free to decide what package or serving size and description to offer in the market (e.g., "medium" or "value" size). Deciding what package size and shape are to be offered is crucial for the firms. Over the last decade, the portion size has distorted to a large extent, and consumers are served a lot more than recommended(S. J. Nielsen & Popkin, 2003; Young & Nestle, 2002). For instance, Tim Horton (a Canadian chain) introduced the extra-large 24 oz cup of coffee by retitling the old extra-large cup with large and old large cup with medium, etc. Though such kind of "supersizing" trend, is often witnessed in the developed world, especially in the United States and it's considered as one reason behind rapidly increasing obesity rates (Rozin et al., 2003),but it has also become a common trend in the rest of the world including the developing countries. Apart from few rare

situations when there is high competition among retailers over smaller size or when smaller packages are offered below its retail price for attracting customers; usually, the larger containers practically have a lower cost per unit (Sprott, Manning, & Miyazaki, 2003) or when retailers sell larger package sizes at higher prices (Jain 2012), to increase their contribution margin by exploiting the fact that consumers do not compare prices of the products and they follow "law-like generalizations" that larger packages are "always cheaper". For instance, sometimes buying two smaller packages cost less than buying the larger pack of the same product (No, E. D. H. (2004). Don't buy it.). This also depends on other factors such as when packaging is not identical or when a particular package size does not sell too much.

Food retailers and the restaurant bear a substantial fixed cost in terms of the building, salaries, and marketing expenditures, if they drop the serving size offered to consumers, it will require a lot of revenue to reach to the point of break-even. Therefore, the majority of restaurants might not stop selling the larger serving sizes (e.g., Ruby Tuesday in 2003), rapidly refrain from the promoting or even offering such products overall.

Pricing the incremental quantity of the product lower than its marginal cost to consumers who are not concerned about overconsumption but more volume is profitable for the marketers (Dobson & Gerstner, 2010; Wertenbroch, 1998a).

Research suggests that in nonpromotional conditions where the marketers have augmented the price of the product and reduced the package size; the price variations have a more significant influence on consumer responses, compared to the package size (Çakır & Balagtas, 2014; Gourville & Koehler, 2004). For example, consumers are delicate to the price of the package compared to its size almost four times more (Çakır & Balagtas, 2014). This stream of research states the dominance of price on consumer evaluations, especially when products are offered in various size options.

Price promotions make consumers buy more and choose the larger packs as it reduces the unit cost and causes a more significant cumulative usage volume. Larger packages consistently increase the consumption quantity, irrespective of being used, indicating the usage intention by pouring or indicating the usage intentions by pencil and paper measures (Wansink, 1996).

To my information, there are not many empirical studies that explicitly discover the usage of product package size as a price discrimination instrument in the consumer-packaged goods

industry. Cohen (2008) studied the application of non-linear pricing mechanism in the paper towel industry, and he found a considerable share of the disparity between per-unit price and package sizes, which can be credited to price discrimination. Moreover, (Haws & Winterich, 2013) explored the role of supersized pricing mechanisms in the consumer food decision-making process for immediately consumed goods.

## **Section 2- Food Consumption Goals**

# 2.1. CONSUMER HEALTH AND VALUE IN THE WORLD OF SUPERSIZED PRICING

One afternoon when you visit the nearest Fast food restaurant, with a plan to buy a small glass of milkshake or a cola so that you don't overindulge, however, when you look at the price of the different size options, you realise that you can double the quantity by just paying a few more cents. It makes sense to buy the larger pack financially as you get more value by purchasing the larger size, and you no longer think about your goal of buying and eating in moderation.

This scenario reflects the typical case of non-linear pricing and packages size, which provides consumers with an offer of getting more discount per unit for buying extra quantity (Dolan, 1987; Gu & Yang, 2010). Consumers can enhance their shopping carrier by augmenting their portion of the purchase at a macro level with the help of nonlinear pricing (Ma, Ailawadi, Gauri, & Grewal, 2011). But in the scenario mentioned above, it's an individual alone, who consumes that much quantity at once. Consequently, it tends to have an adverse influence on his or her health. The Consumers ponder on moderate consumption quantity to achieve their health goal (Wansink, Payne, & Chandon, 2007), however the increase in portion sizes is considered as one of the leading causes of the obesity epidemic, and it increases the health care cost (Flegal, Carroll, Ogden, & Curtin, 2010).

Moreover, the purchase of larger package sizes results in more substantial consumption portions or quantity (Wansink, 1996), regardless of food consumed immediately or in multiple servings a day. Such pricing strategies may give consumers the financial benefits and make them experience the happiness of obtaining better value for their money in the form of a discount on purchase (Naylor, Raghunathan, & Ramanathan, 2006) and it also enhances the value involved in the transaction (Grewal, Monroe, & Krishnan, 1998). In food consumption context, nonlinear pricing attracts many because of its ability to help consumers purchase the desired food with more pleasure (Stroebe, 2008).

Although buying a larger quantity is desirable financially and also because of the pleasure of getting the amount increased for consumption in the short term, but such behavior may bring some long-term consequences in the form of poor health.

Size choice is our outcome variable, and it refers to the amount of quantity that consumers purchase, where a more substantial package size represents the larger quantity. Based on the prior research conducted in this area, the implication of nonlinear pricing and the fundamental processes will be studied in an immediate consumption context.

Moreover, we define Supersized pricing where consumers also achieve economies of scale, such that as the quantity of purchase increases its price reduces per unit. Concerning the practice of promoting larger sizes, it was Mcdonald's who coined the term "Supersizing" in the 1990s but discontinued it later due to a documentary called Super-Size Me in 2004, as it explained the adverse effects of such practice on consumer health (Dobson & Gerstner, 2010).

We will refer nonlinear pricing as "supersized pricing" throughout this dissertation to accentuate the nature of the products used in this thesis, most of which are immediately consumable apart from the one mentioned in delayed context study 4. Although in the preceding research such price-related mechanisms has been named as "nonlinear pricing" (Gu & Yang, 2010), "quantity discounts" (Allenby, Shively, Yang, & Garratt, 2004; Gu & Yang, 2010; Subramaniam & Gal-Or, 2009), or "price discrimination" more generally (R. J. Khan & Jain, 2005; Pigou, 2017). Moreover, nonlinear pricing may also incorporate quantity surcharges (Sprott et al., 2003).

Most of the research conducted in the domain of health and finance is about whether the products are healthy or not. According to Drewnowski, (2010), unhealthy foods contain plenty of calories and are low in nutrient density per serving, on the other hand, healthy foods are relatively expensive, and their per-unit costs more in terms of calories and serving compared to unhealthy foods. Research suggests that when the price of healthy foods is reduced, it results in a drastic increase in their purchase and consumption. (S. A. French, 2003). Therefore, consumers may relinquish healthy meals to save money, apart from their preference for the taste of less healthy substitutes (Naylor et al., 2006).

According to our proposition, when consumers confront their preferred food or drinks such as Potato chips, soft drinks, French fries or chocolates, they are somewhat myopic of their health (Shabir & Cova, 2019), as they devote their attention to the finances given the value disparity provided by each size option. Moreover, in the decision-making process, consumers face the conflict between their long terms goals and short term desires, which leads to a trade-off between their emotional desires of pleasure and cognition, (Hoch & Loewenstein, 1991a; Shiv & Fedorikhin, 1999). Thus far, what transpires when consumers are confronted with their emotional desires and cognitive goals in the context of two diverse domains that characteristically do not interrelate with each other? That is, even if, the purchase of unhealthy food in a large quantity may not be consistent with consumers' health goal, but surely it will be following their value goal, owing to the discount offered for buying the larger quantity.

When consumers make a decision, these two goals interact with each other, which results in a trade-off (as shown in table 02). In the next session, this research will explain the specific issues aligned to each goal discretely and then suggest connections amongst them in a supersized pricing perspective.

Table 02: Framework for Interaction Between Health and Financial Goals (Adopted from Haws and Winterich 2013)

Health Goal for the Eating Domain	Focus of Relevant Goal	Financial Goal for the Spending Domain			
		Linear Pricing		Supersized Pricing	
		Short-term desires: spending more brings pleasure through increased consumption	Long-term goals: spending less is better	Short-term desires: spending brings pleasure; maximizing value brings pleasure	Long-term goals: maximizing the value for my money
Unhealthy Food	Short-term desires: eating more brings pleasure	Consistent: purchase larger size	Inconsistent: more salient goal dominates	Consistent: purchase larger size	Consistent: purchase larger size
	Long-term goals: eating less is better	Inconsistent: more salient goal dominates	Consistent: purchase smaller size	Inconsistent: salient goal dominates; value unless health is made salient, purchase larger size	Inconsistent: salient goal dominates; value unless health is made salient, purchase larger siz
Healthy Food	Short-term desires: eating more brings pleasure, though less than unhealthy foods	Consistent: purchase larger size	Not inconsistent: purchase smaller size	Consistent: purchase larger size	Consistent: purchase larger size
	Long-term goals: eating more is better <sup>a</sup>	Consistent: purchase larger size	Not inconsistent: purchase smaller size	Consistent: purchase larger size	Consistent: purchase larger size

aEating more is only better for the healthiest of foods having no-calorie (i.e., water) or very low calories (i.e., vegetables). The idea is that moderation is not crucial for these healthier foods, but for less hedonic products (i.e. low fat) moderation is still important, but less compared to unhealthy foods.

Our dissertation also follows a similar framework of interaction between health and value goals; apart from the fact that when consumers consider products that are perceived as healthy, especially those with low fat or low-calorie labels, eating more is not better in the long term. Such less hedonic products are better than more hedonic products, but they can never be considered as healthy for consumers, and its overconsumption cannot be encouraged (See table 02).

#### 2.2. VALUE AND FINANCIAL GOALS

The nonlinear pricing strategy brings numerous benefits for not only the firms but also for consumers. i.e., It brings profits to the companies (Dobson & Gerstner, 2010; Gu & Yang, 2010; R. J. Khan & Jain, 2005; Subramaniam & Gal-Or, 2009). Nonlinear pricing appears to be striking to buyers as well, as they start to assume such discounts (Dolan, 1987; Wansink, Kent, & Hoch, 1998). Moreover, these discounts bring higher transaction value and pleasure experience (Grewal et al., 1998; Naylor et al., 2006). Consequently, nonlinear pricing results in increased purchase quantity(Allenby et al., 2004; Dolan, 1987; Gu & Yang, 2010). Nonlinear pricing provides the consumer with the "bang for their buck" as they get more by value by paying less, which helps them reach their financial goal. According to (Haws & Winterich, 2013), consumers can obtain their financial goals in two ways: either they save money by not overspending or by getting a better value.

We suggest that consumers' focus on value is steady with a utility per dollar of value (Hauser & Urban, 1986), and it governs in nonlinear pricing condition, as consumers get the chance to make a value-based choice. We theorize that this very thing happens because consumers not only acquire the deal but also experience the pleasure by enhancing their food intake explicitly of hedonic products (Naylor et al., 2006; Schindler, 1998; Stroebe, 2008) while letting consumers feel as if they are acting by their value-based financial goal. Precisely, we hypothesize that the supersized pricing automatically activates consumer's focus on availing a deal than minimizing spending. On the other hand, the value-based goal is not enabled by the linear pricing as it does not provide consumers with an opportunity of getting a deal and hence consumers only stay focused on minimizing the spending as shown in table 02 above.

It means when the consumers give more importance to the value then probably, they will opt for the larger size under supersized pricing. However, when it comes to food-related decisions, how the changes in financial goals impact the health goals of consumers?

#### 2.3. HEALTH GOALS:

Most the people value their health, therefore it is important for every person to make decisions which favour their health. It should be a priority to understand, how and why people make health decisions, as its also essential (Schwartz, J. (2018). Following the dietary recommendations help consumers avoid various diseases such as diabetes, obesity, and strokes, etc. Consumers are not required to make significant changes in their diet to meet their dietary requirements, rather, they only need to make some minor changes in terms of food they choose such as shifting from full cream milk to half cream, etc.(Jetter & Cassady, 2006). However, there are not many people who are able to follow proper diet, and this situation is even worse when it comes to consumers having low income. Moreover, low-income consumers do not have appropriate access to healthier food options due to the food environment. Research suggests, these consume often mention higher prices and lack of availability of healthy food options as significant constraints to healthy eating (Reicks, Randall, Haynes 1994).

Moreover, one of the significant barriers behind the purchase of unhealthy food options is price, as low-price pf energy-dense food options motivate consumers to consume unhealthily. However, consumers are sensitive to the cost of healthier foods (Drewnowski, Darmon, & Briend, 2004). According to a study price has significant influence on the unhealthy choice of consumers compared to labels (French 2003).

Over the years, healthy food decisions have been exemplified through the Trade-off of pleasure for long-term health. Mostly, the nutritionists, media, and researchers encourage consumers to restraint from pleasurable and tempting foods by trying to divert attention from arousal, hunger, arousal, and sensory information to stay aligned with their health goals(Yang et al., 2012).

In the eating domain, there is a trade-off between the pleasure gained from the substantial consumption of unhealthy foods versus the overall adverse effects on health. Although the type of food we choose for consumption is vital and relevant to a consumer's health goal, however,

in this dissertation, we define health goal as the reduction in the consumption quantity of unhealthy food or an increase in the intake of healthy foods, this definition is relevant to the definition of health goal provided by (Jetter & Cassady, 2006). We propose that the decision related to how much quantity of food one should eat as important as what type of food to eat (Redden & Haws, 2012; Wansink et al., 2007). Although more consumption of comparatively unhealthy food carries extra pleasure, however, the consumption in smaller quantities is more relevant to a consumer's health goal. Contrary to this, the increased consumption quantity of healthy products such as fruits, carrots, and low-calorie vegetables do not bring much adverse consequence to consumer health. Although there are not many foods whose overconsumption does not result in poor health, therefore, our primary focus is on unhealthy foods.

# Section 3- Food Consumption, Anticipated Guilt and use of Nutritional Labels

#### 3.1. CONSUMPTION AND ANTICIPATED GUILT

Consumption is classified into two types on the bases of its motives and context (Strahilevitz & Myers, 1998). Utilitarian consumption is defined as the purchase and use of practical or necessary products, and its objective is to satisfy a functional or sensible need, for instance, PCs, microwaves, and detergents come under the umbrella of utilitarian products (Dhar & Wertenbroch, 2000; Hirschman & Holbrook, 1982; Strahilevitz & Myers, 1998). On the contrary, Hedonic consumption is derived by the wish of satisfying the fantasy need, pleasure and fun and it's often considered as "frivolous" or "flippant," examples include luxury watches, designer clothes, and chocolates, etc.

Some studies suggest that a product can be Utilitarian as well as hedonic simultaneously. However, it may be high or low in terms of both attributes (Batra & Ahtola, 1991; Crowley, Spangenberg, & Hughes, 1992). According to Pham (1998), it's the products usage and the objective of consumption that distinguish a product as mainly hedonic or utilitarian. For example, a pair of shoes have both functional (e.g., durability) and hedonic features (e.g., looks).

The existing literature state that the other reason which also distinguishes the utilitarian and hedonic products from each other is the need for justification. Moreover, the consumption of hedonic products is hard to justify compared to utilitarian products (Prelec & Loewenstein, 1998; Thaler, 1980). There are two reasons behind this, firstly, choosing hedonic products to make consumers feel guilty and secondly; the benefits that consumers receive from them are tough to quantify (Okada, 2005) but when the consumers have quantifiable reasons, they can provide smoother justification (Hsee1996; Shafir, 1993). Furthermore, the hedonic consumption brings benefits in the form of experiential enjoyment, which is even hard to quantify compared to functional benefits driven from the use of the utilitarian products. Hence, consumers often choose products that are justified with ease (Simonson, 1989), especially when the situation is also favorable. In other words, it can be argued that justifying hedonic consumption is somewhat necessary but not easy.

The selection of hedonic options is often linked to the feeling of responsibility as well as guilt (Lascu, 1991). Moreover, it also involves anticipated regret (Bell, 1982), cognitive dissonance(Festinger, 1962) or rational self-perception (Bem, 1972) which will always make consumers justify their hedonic decisions (Simonson, 1989).

According to researchers' guilt is often associated with undesirable affective experiences, which include feelings like self-punishment, remorse, and self-blame. Such a feeling dominates the emotions of a people when they violate the moral or own standards. Whenever we do something erroneous, the guilt works as a premonition and informs us to behave appropriately to evade such feelings (Bozinoff & Ghingold, 1983; Lindsey, Yun, & Hill, 2007; Massi Lindsey, 2005; Steenhaut & Van Kenhove, 2006). The guilt has been classified in various types, such as reactive, anticipatory and existential guilt. However, in this dissertation, we are investigating anticipatory guilt (Cotte, Coulter, & Moore, 2005; Huhmann & Brotherton, 1997) and how it's associated with nonlinear pricing. Literature suggests that many studies have been conducted on guilt. However, the anticipatory guilt has not received much attention(Cotte et al., 2005; Lindsey et al., 2007; Massi Lindsey, 2005).

Anticipatory guilt is defined as the feeling of guiltiness that an individual experience while anticipating a consequence which would possibly disrupt an individual's personal standards (Cotte et al., 2005; Hibbert, Smith, Davies, & Ireland, 2007; Steenhaut & Van Kenhove, 2006). It is a kind of emotional anguish that inspires an individual to perform a pro-social behavior (Lindsey et al., 2007; Massi Lindsey, 2005).

The feeling of guilt rises when an individual experiences the kind of emotions that are neither pleasant nor in the right direction, and which leads to objectionable intentions and actions (Lindsey et al., 2007; Massi Lindsey, 2005).

Guilt and justification are interrelated concepts, not competing theories for explaining the choice of utilitarian over hedonic goods. A sense of guilt may arise in anticipation or as a result of making an unjustifiable choice. An alternative may seem unjustifiable if there is a sense of guilt associated with it.

Anticipatory guilt is as an association of compliance and obligation. For instance when an individual can predict that their action would lead to adverse consequences, therefore they feel guilty, with hindsight the individual will be driven to behave in a manner that may lead to some

kind of positive effect so that the guilt related feelings would decrease (Burnett & Lunsford, 1994; Cotte et al., 2005; Hibbert et al., 2007; Huhmann & Brotherton, 1997; Lindsey et al., 2007; Steenhaut & Van Kenhove, 2006). According to (Okada, 2005), hedonic choices bring fun and pleasure and hence elevates matters like guilt and need for justification. Therefore, consumers often prefer to opt for hedonic options whose decision context allows the opportunity for justification.

Whenever consumers face the tough decisions, they always try to find a way through which they can justify their choices (Sela, Berger, & Liu, 2008), and the uncertainty causes their process of reasoning to move from desirability to justifiability. As a result, their decision-making process relies more on good reasons than good choices (Simonson & Nowlis, 2000).

The options that deliver considerable and justified arguments are more likely to be chosen (Shafir, 1993; Simonson, 1989). Moreover, the previous studies suggest that the anticipated guilt resulting from the choice of hedonic products makes it even harder to justify(Kivetz & Simonson, 2002; O'curry & Strahilevitz, 2001; Prelec & Loewenstein, 1998).

The anticipated guilt can be a significant barrier in decision making. As the anticipation of guilt increases, the optimistic feelings resulting from hedonic consumption decrease which also reduces the satisfaction from the purchase (Prelec & Loewenstein, 1998). Thus, managing consumption guilt is a close encounter for firms marketing hedonic products/services.

### 3.2. NUTRITIONAL LABELS

The word label has a dual meaning. In the 16th century, it was used to depict a piece of paper that was applied to an object to indicate what the product is about and how much does it cost. Moreover, according to the Oxford Dictionary, it's a name that can be put into a thing so that it can assure that the item only belongs to a specific group. Hence, in today's world, labels on the food products are also assigned for twofold purpose. First, to show the nature of the product to the market and consumers. Secondly, to socially condition that way a product must be used (Nabec, 2017)

Nutrition labeling refers to all the information available on the product, which includes nutrition fact panels, health claims, disclaimers, daily reference values, and recommendations, (Hieke & Taylor, 2012). It comprises three components presented on food packaging the back-of-pack nutrition table, any additional nutrition or health claims and front-of-pack nutrition logos. The objective of the nutritional label is to inform the consumers about the nutritional qualities of the products they consume.

According to Orquin & Scholderer (2015), one of the most reliable elements for information in the form of health cue is a nutritional label. Nutrition labeling is their prime information source as it is the primary point of communication at the store (Baltas, 2001). It promises information transparency about the products' quality of nutrition and decreases the irregularity between consumers' and food producers' affiliation (Grunert et al., 2012). For the long-term effectiveness of labels, it's crucial that consumers not only see but also process and comprehend them, in a setting full of information (Grunert & Wills, 2007)

The nutritional label empowers consumers to make educated choices with less misleading objective, all-inclusive, and easy to process information (Burton & Andrews, 1996). According to research the impact of the nutritional label also depends upon its position on the package either in front of a pack or the back of the box. Dietary labels have transformed into the new type of nutritional logos which appears in the front of the package. It conveys the nutritional properties of the product to consumers without any need to touch it.

Irrespective of the format, nutritional labels have an impact on consumer's attitude towards the products (Andrews, Burton, & Kees, 2011; Hodgkins et al., 2012; Kees, Royne, & Cho, 2014; Newman, Howlett, & Burton, 2014; Van Herpen & Van Trijp, 2011). They act as heuristic signs that lessen the complication of information dispensation and ameliorate the levels of comprehension (Andrews et al., 2011).

At a time when more than 1/3 of the world population is under the influence of the obesity epidemic, the use of useful nutritional labels is one of the significant challenges for public health. Although nutritional labels are not properly monitored in Pakistan, since December 2016, it became mandatory for all the food manufacturing companies in Europe. Especially to apply a nutritional logo on the front of all food products. There are certain obstacles for the public health authorities to improve food choices of people because the research suggests that

only 8.8% and 17% consumers use nutritional labels while purchasing food products at a store in France and Europe respectively (Grunert et al., 2010a).

The information about the healthiness of the product is often communicated by the nutritional labels which will go unattended otherwise. Health is the credence attribute (Darby & Karni, 1973) which cannot be confirmed just by the mere personal consumer experience. Nutritional labeling is responsible for communicating that tangible attribute(search) based on health inference(Verbeke, 2005). This procedure is recognized as informational belief formation (Fishbein & Ajzen, 1975), in which consumers form beliefs about the credence attributes (healthiness) based on the information offered by others (the label). This informational belief formation procedure is supplemented with the process of inferential belief formation(Fishbein & Ajzen, 1975), where the other information cues (healthiness) provided on the pack for belief formation.

According to prior research, labels are an excellent source of conveying crucial information to help consumers make informed decisions (Bettman, Payne, & Staelin, 1986; Bloch, Brunel, & Arnold, 2003; Caswell & Padberg, 1992; Schoormans & Robben, 1997, 1997). However, consumers find the nutritional information on the back of the product very difficult to comprehend (Heroux, Laroch, & McGown, 1988; Kristal, Levy, Patterson, Li, & White, 1998). Consumers may not always be able to integrate thorough information on nutrition tables in their decision process (G. Jones & Richardson, 2007). This infers such nutritional information tables are among the label which receives less consumer attention compared to other labeling systems; the reason behind discarding them is the level of difficulty to use them in the decision-making process. However, those consumers who focus on reading these labels need to devote a longer time to comprehend the importation mentioned and possibly compare a variety of products, and therefore, they prefer to see the front of pack nutritional labels.

## 3.3. CONSUMERS' FOOD CHOICE DECISIONS IN THE CONTEXT OF MEANS-END THEORY

According to (Graeff, 1997), consumers analyze and understand products based on inferred beliefs and available information. Consumers can be encouraged to purchase products depending upon how much they are involved in their purchases (Celsi & Olson, 1988). This implies that consumers may be more inclined towards buying the products they better relate with themselves (Mulvey, Olson, Celsi, & Walker, 1994). It has been concluded in several studies that the means-end theory describes consumers' belief structures, which make consumers develop personal relevance for the products they purchase (Gutman, 1982; McCarthy, de Boer, O'Reilly, & Cotter, 2003; Reynolds & Gutman, 1988). The personal relevance develops because means-end chains (MEC) connect the consumers' knowledge regarding product attributes and benefits with consumers' values and goals. Therefore, the knowledge structures regarding means-end indicate the reasons behind a consumer's personal relevance with a particular product (Olson & Reynolds, 1983).

MEC considers consumers as people who make their decisions motivated by the goals they set; their behavior is also based on the choices that lead them to the fulfillment of their desired results.

#### **Assumptions of the theory**

- Means-End theory suggests that consumers face various problems in their daily lives, and hence they focus their attention on solving the issues, to achieve their desired needs or goals. Based on that consumers engage themselves in a variety of actions which also includes the activities related to the purchase of the product.
- Means end approach also assumes that when a consumer buys a product, they are trying to buy consequences or experiences. Such experiences may lead them to achieve their desired goal or help them attain the sub-goal which will eventually relates to their overall significant goal. Hence, MEC assumes that such attractive consequences become the prominent factor when it comes to decision making. Moreover, the theory also states that the consumers often prefer to experience the positive consequences which are personally relevant to them and try to avoid the negative ones. Some prominent consequences are more direct and tangible and happen immediately as soon

as the decision is made or once the product is consumed for instance if a consumer consumed a pack of snack and did not feel hungry anymore is referred as a functional consequence. Whereas in other cases, the experiences occur long after the buying decision is made for instance when someone starts feeling satisfied after wearing a shirt (psychological consequences) or when someone still pays attention to the old car (social consequences).

- Means end theory helps in identifying the most critical consequences or experiences of a person's life. The consequences which are most aligned to an individual's crucial goals and values assist in better understanding the source of personal relevance.
- Moreover, the means-end approach also assumes that the major components such as attributes, consequences and values/goals are very critical as they carry most of the meaning
- Lastly, the means-end theory assumes that consumer's behavior is goal-directed and
  their goal-directed behaviors are intended and with conscious awareness. For instance,
  it assumes that consumers must choose consciously among two or three alternatives
  (choosing a small or large glass of coca-cola). Even though due to the frequent buying it
  feels automated and unconscious but still the decision making occurs at a conscious
  level like previously.

Two general assumptions (Gutman, 1982) are linked to this behavior that is motivated by goals. First, consumers make their buying decisions keeping in view their understanding of the outcomes of their buying behaviors. Consumers develop their self-relevance of the results of their behavior depending on their values while improving their knowledge of the value based on product attributes. Such attributes, consequences, and values (ACV), and connections and relevance consumers extend between them constitute the core of the means-end chain (MEC). Second, MEC considers the level of consumers' intent and their responsiveness regarding their consumption-based decisions. According to Olson & Reynolds (2001), consumers use products as means to attain specific goals or end-states, and their decisions are based on their consciousness in which they consider searching for positive outcomes and avoid adverse consequences.

However, the decisions related to buying the food items are highly influenced by the aspects such as habits, emotions, and symbols, and based on the low level of involvement (Costa, Schoolmeester, Dekker, & Jongen, 2003; Steenkamp, 1997). Nevertheless, given the way

attribute, consequences, and values are connected with the decisions related to consumption, the means-end chain may indicate how automatic, unconscious and emotion-based choices are made(Olson & Reynolds, 2001). Hence, even with the low level of involvement, accommodating the emotion-based, less conscious aspects of food consumption can produce satisfactory results(Grunert, Sorensen, Johansen, & Nielsen, 1995; N. A. Nielsen, Bech-Larsen, & Grunert, 1998).

Rokeach, (1968, 1973) categorization of values into two different categories (terminal values and instrumental values) motivated the idea of MEC. The terminal values represent end-states, such as security and happiness. While the instrumental values include patterns of behaviors such as, broad-mindedness and honesty, and these are effective in getting to the end-states. Rokeach's idea of terminal values has been integrated by (Gutman, 1982) into an explanation of his own about how terminal values (preferred end-states) are translated into products choices made by consumers. Hence, the idea of the means-end chain emerged from Rokeach's terminal values.

(Howard, 1977), while studying consumer values, developed value structure in semantic categories by linking values with brand decisions and product attributes. Howard said that the way consumers use a product is connected with the brand-related choices that consumers make. Even though Howards' semantic structure was divided into three categories, his attempt encouraged Gutman (1982) to come up with the means-end theory from the perspective of foods. So, Gutman presented the means-end chain theory in consumer research discipline to comprehend the cognitive structures of consumers in their consumption behavior. The basic tenets of these structures are consequences, values, and attributes. The attributes of a product/service are at the bottom of a hierarchy, followed by consequences at the second level, and those (consequences) are linked to end-states at the highest level of the hierarchy. The relationship between consumer's needs, product attributes, and personal benefits have also been discussed by Evans & Moutinho (1997); they described and developed similar points with the means-end approach in the conceptual framework that they presented. They defined 'needs' as close to personal values, 'features' as clear product attributes, ad 'benefits' as consequences as given in the MEC.

All three constructs (attributes, consequences, values) are discussed in the following section.

#### **Attributes**

Product attributes have been studied profoundly from concrete to abstract (Olson & Reynolds, 1983; Reynolds & Gutman, 1988; Rokeach, 1973; Walker & Olson, 1991). The nature of concrete attributes is tangible and has characteristics such as price, flavor, etc. While abstract attributes are intangible with multidimensional characteristics such as a product's country of origin, brand name, etc.

The difference between abstract and concrete attributes is closely linked to the difference between subjective and objective qualities of a product(Grunert, 2005). Objective qualities specify the physical attributes built into a product with careful consideration by food technologists and engineers(Grunert, 2005, p. 371). On the contrary, subjective qualities are defined as those that can be directly perceived, described and appreciated by consumers such as product features like size, taste, color, freshness, quality, and smell (Matt et al., 2011).

Objective attributes are subdivided into intrinsic and extrinsic attributes. Intrinsic attributes are concrete tangible features of a product(McCarthy et al., 2003). While extrinsic attributes are the features of a product, not linked to the physical appearance of a product(Jover, Montes, & Fuentes, 2004), extrinsic attributes relevant to a product may be information regarding production, country of origin, fair trade practices, consideration of packaging in materials that can be recycled.

Product attributes form consumption experiences. However, the perceptions of consumers regarding these experiences are not similar to the product attributes; instead, these experiences consist of consequences(Grunert, 2005). As consumer behavior is goal-oriented(Bagozzi & Dabholkar, 2000), consumers consider certain products due to their (products) ability to bring about desired outcomes or avoid undesirable consequences (Woodruff & Gardial, 1996, p. 69). Therefore, it can be inferred that some product attributes may be perceived as promoting some outcomes.

#### Consequences

Consequences represent the outcomes of customers' experiences with product attributes and can be referred to as the benefits drawn with the use of products. According to Botschen, Thelen, & Pieters (1999), product attributes do not describe the reasons behind the purchase of a product or service. The primary assumption that is linked to the means-end chain is that the

consumers do not make buying decisions just for the sake of products, but for the benefits, they gain from the consumption of those products.

There are two types of consequences about consumers' purchases(Olson & Reynolds, 1983): psychological and functional. Psychological consequences are indirect and intangible results of attributes, and abstract. While functional consequences tangible and direct results of attributes. Both the consequences (functional and psychological) are connected to values. Hence, consequences are the outcomes of what customers experience with product attributes.

According to Claeys, Swinnen, & Abeele (1995), there is a pattern of links with self-knowledge and promoting activities that are desirable and avoid undesirable ones. Consumers' preference of some attributes over others may be due to the ability of that behavior to deliver desired consequences(Woodruff & Gardial, 1996,p69). It is reasonable to expect some attributes to be connected to a certain kind of consequences. What makes certain kind of consequences important is that consumer behavior is goal or objective-oriented(Bagozzi & Warshaw, 1990; Huffman & Houston, 1993; Pieters, Baumgartner, & Allen, 1995), and consumers approach or show reluctance for certain consequences, depending on whether those consequences are in accordance with consumers' desired goals. Therefore, consequences that are more linked to consumers' goals are preferred over other consequences.

#### Values

According to Rokeach (1973), "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (p.5). There are two kinds of terminal values, i.e., personal (self-oriented) and social (society-oriented). According to Huffman & Houston (1993), consumer's goal-oriented behavior suggests that the information about the product attributes and experiences associated with those attributes is organized in memory following goals that determine experience(Huffman & Houston, 1993). Though people most often have no prior knowledge about all the product attributes, their focus can be on their goals by selecting a particular product or a service and therefore, acquire goal-oriented knowledge. So, the consequences of using a specific product may influence the degree of attainment of goals for customers.

On the contrary, consequences often show what consumers feel about a product's attributes after consuming it. Such feelings of consumers may be positive or negative, depending on the level to which they achieve their goals. The degree of attainment or failure further defines the behavioral intentions of individuals and explains the possibility of future customer actions (Bagozzi & Dholakia, 1999).

Woodruff & Gardial (1996) explained that the desired end-states formulate consumers' decisions, specific intentions to purchase and consume particular products; however, cultural values also have an essential role in influencing the society from where consumers acquire their personal goals. As mentioned previously, products or services that have worth in terms of the attainment of goals that are desired by customers, this idea is in accordance with the level of achievement of goal and is relatively better predictor of customers' future behaviour than the product attributes and consequences(Gutman, 1991; Olson & Reynolds, 1983).

The nature of concrete attributes is tangible and has characteristics such as price, flavor, package size, or quantity. We can also refer to this as objective qualities of the product as it focuses on the physical attributes built into a product. Consequences, on the other hand, are what customer accumulates by the use of products. Consequences are also mentioned as the benefits that consumers receive from the product as they imitate the outcomes and perceived costs accompanying product attributes(Susan Baker, Keith E. Thompson, Julia Engelken, & Karen Huntley, 2004).

Sometimes consumers give more importance to specific product attributes "because of their ability to deliver desired consequences or to avoid undesirable ones" (Woodruff & Gardial, 1996). Henceforth, it is reasonable to assume particular attributes to be related to specific consequences.

Therefore, the role of means-end theory in food choice decisions is quite relevant especially in the context of our qualitative study whose objective is to explore the reasons behind a specific food purchase decision and the resulting consequences. Therefore, it will be interesting to see what means consumers use to make their food choice decisions specially in the context of buying the larger size. Moreover, this will also provide further insight in to value that consumers obtain in the form of goals reached. This theory will also be relevant in the context of consequences which consumers will face after their purchase of larger sized options.

#### **SUMMARY FOR CHAPTER III**

This chapter was all about the existing literature related to the topics of pricing, value, different consumption goals (health and value), and how the price is associated with packaging decisions. This chapter discussed the operational definition of study variables. Moreover, this chapter also introduced two additional variables of the current study, such as consumption guilt and nutritional labels where different definitions and types of guilt and nutritional labels were discussed. All the three sections talked about the definitions of the concept and how they are operationalized for this dissertation. The last section of this chapter explained the Means-End theory. In which the historical development of the means-end theory is discussed along with its implications in food consumption research.

## PART I: STATE OF ART



#### **CHAPTER I:**

**Social Marketing and Transformative Consumer Research (TCR)** 

#### **CHAPTER II:**

**Functions of Food and Food Myopia** 

#### **CHAPTER III:**

**Consumer Perceptions of Food Consumption** 

#### **CHAPTER IV:**

**Qualitative Study and Hypothesis development** 

## **CHAPTER IV:**

# QUALITATIVE STUDY, THEORETICAL FRAMEWORK, AND HYPOTHESES

## INTRODUCTION FOR CHAPTER IV

The objective of this chapter is using the qualitative study to construct our conceptual research model. The first part of this chapter provides detail about how the themes emerged from the triangulation of narratives, construction/completion techniques, and in-depth interviews. It starts with the introduction of the objective behind the qualitative study, which further leads to the problematic and gap in the literature. It also explains the methodological design, methods of data collection and sample selection. Furthermore, the qualitative study reveals data analysis techniques used in the study along with the research findings and discussion of the results in the light of previous literature about the phenomenon at hand.

The second section of this chapter provides the theoretical background of the variables (determinants) emerged from a qualitative study that may have a significant effect on consumers' food consumption decision, and which comprehensively explains the decision-making process of consumers in supersizing context. It also identifies the lead researchers and discusses their work. Constructs are conceptualized to develop hypotheses based on which a hypothetical research model is proposed.

Thus, the chapter consists of two sections:

- Section 1 explores the concept of supersizing, qualitative analysis and discusses the qualitative study in the context of the factors that lead consumers to supersize their food along with the resulting consequences
- Section 2 builds the research model and proposes the research hypotheses that are derived with the help of qualitative study and the review of previous literature.

# Section 1 – Exploratory Study: Beyond Supersized Pricing the Choice for Supersized FooD<sup>2</sup>

The decisions related to the food choice and consumption quantity are not the same. Food choice decision refers to the type of food we eat, such as Fruits or Fast food, whereas consumption quantity decisions are related to the amount of food we eat partial or full.

Consumer psychologists and health psychologists have frequently paid more attention to comprehend the factors that impact food choice compared to consumption quantity. At a time of growing obesity, knowing about the amount of food we eat is as pertinent as what we eat. (Hall et al., 2011; Hill, 2008; Nestle & Nesheim, 2012; Young & Nestle, 2002).

The beverage manufacturers are uninhibited to offer description and size (i.e. "value" or "medium" size) of portions and packages in the market except for a handful of exemptions (like liquor or wine). Alike, restaurants choose descriptions and servings freely. For instance, Tim Horton, a Canadian chain, introduces 24 oz. "extra-large" cup of coffee in 2012, describing previous "extra-large" as "large" and former "large" as "medium," etcetera. Some producers and eateries habitually define the shape and size of utensils (glasses, plates, bowls, etcetera) that consumers use to consume with. Therefore, the selection of shape and size of the serving or package is a vital notion for marketers in the food industry. The packaging of the product and quantity of the serving have increased swiftly in recent times and are far larger than recommended portion size (S. J. Nielsen & Popkin, 2003; Young & Nestle, 2002). In developed countries, this drift has been detected heavily, In the United States, "supersizing" is predominantly communal, and has been acknowledged as one of the crucial factors of increasing obesity, which is growing faster there than any other developed country in the world (Rozin et al. 2003).

However, this trend is also followed in developing countries like Pakistan and India. In Pakistan, for instance, at most of the restaurants such as KFC or McDonald's the consumers have the small medium and large-sized or menu deal options for snacks and beverages. By

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<sup>&</sup>lt;sup>2</sup> Moving Beyond Supersized Pricing: Why Consumers Choose Supersized Food? A Mixed-Method Exploratory Approach" (Paper accepted in ARICON 2019, Cambridge, UK)

just paying an additional Rs.20 consumers can upsize their French fries at KFC("KFC Pakistan," 2018), and by spending just 44%, more money consumers can double the size of their milkshake at McDonald's ("McDonalds Pakistan," 2018) and similarly consumers can opt for a menu with lower per-unit price associated to each menu item compared to its cost alone. Not only that even companies like Pepsi and Coca Cola follow the same practice and the local convenience stores also sell 250ml and 500ml drinks in Rs.25 and Rs.38 or Rs.40 respectively. Hence consumers can double their drink by paying just 13 more rupees, and the price per unit decreases even further for even larger bottles i.e. 1,1.5 and 2.25-liter containers respectively.

Pakistani consumers spend almost half of their income on food (World Economic Forum, 2016). However, the food consumption norms in the country are alarming and require a transformation. Fast food is preferred by 89% of Pakistanis, due to its palatability and convenience, and 70% of people believe it to be the probable cause of obesity (Baig & Saeed, 2012). According to a study in The Lancet medical journal, Pakistan is the ninth most obese country in the world(Marie Ng et al., 2014), encompassing 21% men and 26% women as obese respectively.

Though there can be various culprits behind this worrying phenomenon, the food industry has been held responsible due to the introduction of increasingly upsized, "supersized" beverage and food options (Spurlock 2004). The portion sizes of sugary drinks, Mexican food, and hamburgers have enlarged substantially by 52%,27%, and 23%, respectively, over the past 20 years (Forsen and Popkin 2003).

The unit price of outsized package and portion is always lower (by weight or volume), excluding the infrequent occurrences (i.e., high competition on small size packages or to gain the attention of customers to retail shops, smaller sizes has sold at a loss (Sprott et al., 2003). Hence the sellers can boost the consumer value by reducing the unit prices of large packages due to decreased cost of packaging. Primarily, the marketers enjoy grander margins on the jumbo package and portion size because the additional cost of the added food is usually negligible in comparison with the value perceived by consumers. The restaurants and food vendors with high permanent prices (like land, labor, human capital) reduce their portion size, hence the expenditures of consumers which necessitates an enormous number of sales to

break even. It enlightens the reason for discontinuation of these offers or at least promotions of them (Ruby Tuesday in 2003).

In addition to that, profit can maximize if food marketers' price the additional quantity below its marginal cost and sell the products to two different consumer sectors. One who is undaunted about overeating and keen to decrease the unit price by buying larger quantities; and another is prepared to wage higher for smaller portion sizes to cut back their intake (Dobson & Gerstner, 2010; Wertenbroch, 1998a). Consequently, superior sizes are classically profitable for food vendors; they take advantage of perceived environmental and economic value – it's a win from all facets except consumption control and convenience.

Through promotional techniques like ("buy one get one free," "one for \$1.00 and two for \$1.50"); food marketers increase package and portion size without altering the original package. Though one study described the insignificant association between removing the price of menu bundles and caloric intake in fast food eateries(Harnack et al., 2008), and other studies described it has a significant association in overweight consumers. Many researchers have evidenced that stockpiling is the result of quantity discounts in retail grocery, which fast-tracks consumption (Neslin & Van Heerde, 2009). Undeniably, consumers' top of the list reason to justify their purchase is a value that is provided through supersize packages (Vermeer et al., 2010).

Despite what we know about consumer decision making and purchase of larger package sized food, the understanding of other reasons behind the purchase of larger packs is limited. There has been relatively little research about identifying the other reasons behind consumers' intentions to opt for larger packages apart from the better value or lower per-unit cost. Therefore, the attaining of a more detailed understanding of what consumers think about larger package sizes and why they prefer the larger containers among the other options and what situations cause them to make such decisions is essential. Moreover, understanding what consumers feel and do after the purchase of larger containers can help marketing research and practice better meet the needs and demands of all consumers and come up with better solutions based on their understating of the antecedents and consequences behind the consumers' purchasing of upsized packaged foods.

A study of consumers buying the larger packaged food can take many directions, but we focus on what consumers think about larger packaged foods, assess value, make decisions and cope with the outcomes of their choices. We find that consumers have multiple reasons behind their choice of larger packaged food. They have specific decision heuristics, tradeoffs, and coping behaviors. We also find that consumers usually base their decision on the perception of getting a better value in the form of lower per-unit cost and consuming more food by doubling the quantity considering its palatability and sometimes when they want to collaborate and share the meal with friends. Moreover, the level of hunger is also one of the reasons behind the purchase of supersized foods.

Interestingly, consumers also choose larger containers under the social influence as they tend to mimic or model the behaviors of others. Moreover, the choice of purchase large also depends upon individual personality, whether someone is price-conscious or health-conscious.

Another interesting finding is the role of social status as some consumers believe that choosing the larger option among the small and medium-sized choices represent their status and affordability to the others. In addition to that, consumers buy large to have more leisure time while sitting and socializing within restaurant premises.

However, our findings suggest that larger packages bring both the benefits as well as costs. On the one hand, consumers enjoy a financial gain in the way of saving and feelings of satisfaction, happiness and pleasure and on the other hand, consumers either overconsume or waste the food from the larger packs which cause a sense of guilt to consumers. Interestingly, we find that sharing works as a moderator in all these negative consequences such that sharing or collaboration helps consumers avoid overconsumption and food waste, and at the same time it helps them reduce that guilt. Finally, we find that consumers also perceive a larger pack of foods to be of lower quality as compared to the smaller packaged foods.

We begin with a discussion of our methods. Next, we discuss our findings, highlighting various aspects of buying an upsized container of foods. We conclude with the theoretical and practical implications and limitations of our research.

#### 1.2 RESEARCH METHODOLOGY

#### 1.2.1 Research Design and Data Collection

The qualitative research method is selected for the current study. The fundamental reason for choosing **qualitative procedure** was to explore underlying attitudes, beliefs, and motivations of the respondents towards the purchase of larger packaged foods. We accept that the qualitative approach "produces findings not arrived at by statistical procedures or other means of quantification. It can refer to research about persons' lives, lived experiences, behaviors, emotions, and feelings as well as organizational functioning, social movements, cultural phenomena, and interaction" (Strauss & Corbin, 1998).

Moreover, qualitative research helps to study the deeper structure of the aspect and answer the how and why questions (Congot,1998). In this research method, both the researcher and the respondent are interactively linked and conduct face to face study(Opdenakker, 2006). Data collected from the qualitative technique describe the complex problem in detail based on their personal experience in a specific contextual setting (Johnson & Onwuegbuzie, 2004) as qualitative research techniques represent the local situation and circumstances of how and why the phenomenon occurs. Guest, MacQueen, & Namey (2011) stated that qualitative research is an appropriate research method to explore and describe social reality with the inductive analysis in a specific context. According to Bryman & Bell (2007), Qualitative research method includes many choices for generating the data such as the case study, observations, interviews, narratology, storytelling, etc. and these research methods are considered appropriate for business and management research.

The magnitude of the current study requires the collection of essential data to be able to accomplish a deeper understanding of the phenomenon. Thus, we selected the qualitative approach to get in-depth information regarding consumer decision making related to the purchasing of supersized foods. We have used projective techniques as well as in-depth interviews for data collection as they offer the flexibility, detailed, desired information, and the possibility of the emergence of new questions from the respondents' responses (Bryman & Bell, 2007) and helps to overcome or minimize the interpretation predisposition biases (Stenbacka, 2001; Mays & Pope, 1995; Morse et al., 2008).

## 1.2.2 Projective Techniques

The consumers are hardly aware, or able to express the fundamental reasons behind their decision to select one product over another and hence it's always a challenge to understand consumers' perceptions regarding food products(Donoghue, 2000). Roininen, Arvola, & Lähteenmäki (2006) have explained that one of the applications of qualitative techniques is the purchase decision of food products.

The qualitative methods engrossed the surveys and fixed questionnaires which are less structured than quantitative methods, though it's less formal; it allows us to dig deeper into consumer behaviors (Lawless & Heymann, 2010). The qualitative methods are apt to ascertain the opportunities in the market, investigate and acquire new notions, create viewpoints and hypotheses, and comprehend consumers' perceptions before quantitative research(Lawless & Heymann, 2010). The projective techniques have been widely used and acknowledged in qualitative consumer and marketing research (Boddy, 2005; Donoghue, 2000; Steinman, 2009). Projective techniques enable researchers to give an ambiguous and unstructured stimulus to consumers to unearth the inmost attitudes, beliefs, feelings, and motivations (Donoghue, 2000; Guerrero et al., 2010).

Van Kleef, Van Trijp, & Luning, (2005) have stated that when we directly ask questions from consumers about their feelings, motivations, and sentiments, they feel reserved while sharing information because of societal obstructions or cannot explain their behavior adequately. So, projective techniques give us the platform of an indirect approach to understanding consumers' behaviors and attitudes, which consents the investigators to outdo communication snags(Steinman, 2009). The clinical psychologists have developed these projective techniques which are widely used in consumer and marketing research (Donoghue, 2000). These projective techniques might be partitioned according to the necessary response types, into the following five groupings: association, construction, completion, choice ordering, and expressive (Donoghue, 2000; Hofstede, van Hoof, Walenberg, & de Jong, 2007).

We have used three projective techniques comprising, stories/narratives, construction, and completion, along with in-depth interviews, which are explained below:

#### 1.2.2.1 Narratives/Stories

The stories can be declaiming as the illustration or the challenge of theory. Storytelling is the

ritual in history, anthropology, and the exploratory method in the domain of social sciences. If Vargo & Lusch, (2004) are right that marketing grant must gradually deal with the flowing of event and not the objects, then, marketing researchers may find stories to be useful in backing the claims about the gist of an event's arrangement like the historians and anthropologists (Deighton & Narayandas, 2004).

The interest in the use of stories in marketing research has been mounting (e.g.Deighton & Narayandas, 2004; Escalas & Bettman, 2000; Fournier, 1998; Hopkinson & Hogarth-Scott, 2001). The various ways in which stories are used may confuse the readers who try to understand story-based research and also to marketing scholars, who are interested in putting stories to use for performing their research. In this way, human experience can be better understood because the story contains meanings. As stated by (Polkinghorne, 1995) about the stories that it is a cognitive process that organizes human experience into temporally meaningful episodes (p. 1).

The stories are found to be very powerful and have received growing consideration in marketing (Deighton & Narayandas, 2004). This method of research can be used in several ways (Hopkinson & Hogarth-Scott, 2001) depending upon the research spectrum that is linked to different ontological (Grotty, 1998) and epistemological assumptions. The researchers might consider stories as a piece of qualitative data; however, its answer depends upon the pattern from which they answered. According to the positivist, the story might reflect events in the social world and create tranquil to understand the fact about the world. On the other hand, interpretivist consider stories as the experiences of storyteller and relate them to the ideographic.

Storytelling is used in a variety of ways for data collection, i.e., positivist or interpretivist approach. But the two studies conducted by Fournier (1998) and Dahl et al. (2003) are worth mentioning to better understand the role of stories in marketing research from both positivist and interpretivist perspectives.

The interpretivist researchers state that "stories describe the genesis, evolution, and usage of brands in the informant's repertoire"(Fournier, 1998) and their concern is to understand the situation from the participants who are facing it and seek information in their perspective in order to explore the meaning through which they construct the reality. Fournier used the storytelling methodology to explore consumer brand relations, their bond with the brand, and their brand relationship quality. The researcher used life stories of consumers and asked them to develop a connection in their past, present, and future.

On the other hand, storytelling technique is also used by positivist researchers who continue to treat respondent stories as 'factual report' within the positivist tradition (Gremler, 2004; Hopkinson & Hogarth-Scott, 2001). Dahl, Honea, & Manchanda (2003), adopted a positivist approach to conduct their research on consumption guilt. The authors state that "storytelling is a more isolated, individual activity demonstrated in the statement, 'the instrument first asked participants to recall, and describe in as much detail as possible. Here the tool acts as the agent, thus avoiding the idiosyncratic and potentially contaminating influence of human interaction." (p; 161).

Storytelling allows generalisability, and the production of context-free explanation, and the researchers can learn from many more people, in less depth and with an exclusive focus upon the topic of the study (package size). Moreover, following the interpretivist approach helped us understand the personal food consumption decisions of the informants, before that the researcher is oblivious, and the only person who can apprise is the informant himself.

Once we learned about the narratives of consumers related to their recent experiences of purchasing and consuming from larger package sizes, we tried to dig deeper into this phenomenon of consumers' decision making and used completion/constructive technique. We used these techniques because we realized that respondents were a bit reluctant in sharing their own experiences related to consumption situation, which might have been caused by the fact that consumers are often stigmatized for buying large and eating more food; hence sharing the information related to overeating might have put them in a vulnerable situation. Therefore, we decided to use Construction/Completion techniques to allow respondents to explain more about the phenomenon by expressing the opinion and feelings of others in similar decision making and consumption scenarios, through the reduced sense of reluctance in sharing the information.

#### 1.2.2.2 Construction and Completion

The most extensively used projective technique is construction. Principally, in this procedure consumers are asked to express their views about other persons' actions, which empowers them to respond unreservedly, because they are not stating their acts, beliefs, or thoughts(Donoghue, 2000; Gordon & Langmaid, 1988). As a result, the response of consumers becomes free of the fear of social hurdles because their accountability is intact. The most important advantage for the researcher is that the consumers' answer is the mirror of their feelings and thoughts(Donoghue, 2000; Gordon & Langmaid, 1988). But, the main drawback of this procedure is that people might describe the societal norms and beliefs instead of their own.

Bubble drawings which are also known as cartoon tests are also a construction procedure, in which consumers are given the speech bubbles conferring to the characters presented in the cartoon strip. These cartoon strips describe the complex and vague scenarios related to consumers and are of notice for the researcher (e.g., a consumer looking for an item in the store, a consumer at the checkout line) and respondents are asked to fill in the thoughts of the characters (Donoghue, 2000; Gordon & Langmaid, 1988; Steinman, 2009). Analogous to the third person questioning, the bubble drawings' fundamental proposition is that the consumers will respond based on how they opine about the characters (Will, Eadie, & MacAskill, 1996).

The second commonly used projective method is The Completion in which the half-finished sentences, argument, story, or dialogue is given to respondents and instructed them to complete them(Donoghue, 2000; Gordon & Langmaid, 1988; Will et al., 1996).

Story completion and sentence completion are two types of completion techniques. First, the story completion is the kind in which the researcher generally searches for the emotions and attachment of the respondent with the brand or any product. This type is simple because respondents are asked to explain a story about any product or any brand in which they have an interest. Sometimes, it asked respondents to complete the suppositional discussion between the characters, and other times the portraits are provided as a stimulus to respondents.

The second, sentence completion demands respondents to complete the sentences that they reckon suitably. This technique is widely used because it enables researchers to stockpile a sizeable amount of information in a short period. For example, brand or product-related and

circumstantial relationships can be drawn. For instance, if we can evaluate the Coca-Cola product, we can ask that "I drink coca-cola because it is -------" Or "people who drink Coca-Cola are ------." Though, the main drawback of this technique is that it discourages the details explanation or elaboration, which dissuades the researchers' capacity to analyze the multidimensional relationship of consumers (Gordon & Langmaid, 1988). This procedure may be implemented in collaboration with photos(Zober, 1956).

We also used the Association/Personification technique to identify the characteristics of the individuals as well as the situations under which the consumers are more likely to purchase and consume the larger package sized food. Although it is not discussed in more detail in this section. However, its findings are mentioned in the appendix and it signifies the use of student sample for this dissertation.

#### 1.2.2.3 Association

Another projective technique often used in consumer research is Association. This technique requires respondents to describe the first image, word or thought prompted by watching an object presented to them(Donoghue, 2000; Will et al., 1996). The fundamental principle behind the association task is that thoughts instantly came in mind are triggered by the stimulus presentation(Hussey & Duncombe, 1999; Will et al., 1996). Researchers typically use this technique to analyze the data because researchers are capable of getting the first thought triggered by the stimulus, and respondents usually enjoy doing this because it seems like a game or an exciting activity.

**Personification** is also an association task, in which the associations are developed between brands or product with personality type or any person(Donoghue, 2000; Hussey & Duncombe, 1999). In brand personification, respondents are given images or words and are required to choose those that are associated with any brand or product. Respondents are also instructed to provide reasons for their choices. The motif of respondents' responses can be comprehended by perceptions of respondents and images related to any brand or product(Donoghue, 2000).

In the projective techniques mentioned earlier, there was limited involvement of the researchers in asking further questions about the purchase and consumption situations and hence we realized that it might have resulted in less information related to the overall consumption scenario. Hence, we decided to question people face to face through in-depth interviews. Which will allow us to probe more to better understand the hidden motives behind consumers' decision to upsize their meals. Also, to validate the findings that were explored through previously used methods.

#### 1.2.3 In-Depth Interview

Many researchers considered interviews an appropriate technique to collect information to address the research question (Creswell, 2013; Crouch & McKenzie, 2006; Lee & Lings, 2008). By interviewing a researcher provides an opportunity for respondents to share their stories and consent their voices to be heard. Lee & Lings (2008) argued that interviewing facilitates to accumulate detailed information regarding the issue, opinion, feelings, experience, etc. The idea of face to face interviews instigated from the fields of psychology and psychoanalysis to obtain maximum required information to solve the problem or to diagnose the actual reasons behind.

In-depth interview technique is adapted from the naturalistic approach given by Miller & Brewer (2009) where he stated that "Naturalism is an orientation concerned with the study of social life in real, naturally occurring settings, the experiencing, observing, describing, understanding and analyzing of features of social life in concrete situations as they occur independently of scientific manipulation. It is the focus on natural situations that lead to the sobriquet 'naturalism' and is signified by attention to what human beings feel, perceive and think and do in natural situations that are not experimentally constructed or controlled."

The Semi-structured qualitative study (SSQS) is one of the methods of qualitative research approach, involves interviews and observations with a specific structure. This method contains organized, iterative coding of collected data as this research approach extract information about human behavior and belief system in a particular context where it occurs (Rubin & Rubin, 2011). The semi-structured interview methods are appropriate for studying the individuals' perceptions and views about the complex, socially, and emotionally sensitive issues(Barriball & While, 1994). It allows respondents to express their essential opinion in detail about the research problem(Cridland, Jones, Caputi, & Magee, 2015). According to

Darmer (1995), a semi-structured interview technique is neither a highly structured nor a free conversation inquiry method hence it provides flexibility by maintaining the order of questions and respondents; it helps respondents explain their views in detail rather than focusing on the specific issues.

The semi-structured interview technique used in this study to collect the data was grounded on a semi-structured interview guide, comprising of a schematic presentation of questions required to explore the topic(DiCicco-Bloom & Crabtree, 2006). This technique serves the purpose of examining the desired subject more comprehensively. A semi-structured interview guide contains the core question along with the associated problem linked to the central topic of the research/research question(Creswell, Hanson, Clark Plano, & Morales, 2007).

One of the significant advantages of the semi-structured interviews is that the previously unknown information emerges. This approach allows the extracting of the novel and useful information from respondents. Consumption decision is a complex issue that is hard to quantify. Statistical analysis, despite all the advantageous, is not enough to give us insight into how the consumer makes their food decisions. Thus, data collection through interviews provides detailed, rich and exclusive information for understanding the underlying motives behind consumer food decisions and package size choices. This helps to strengthen the relevance of food consumption and package size research in a theoretical and practical perspective.

## 1.3. TARGET POPULATION AND SAMPLING METHOD

We have collected the data from Pakistan for this qualitative study, using a convenient sample. According to (Patton, 1990) "qualitative inquiry typically focuses in-depth on relatively small samples, even single cases, selected based on convenience." Therefore, we have chosen the convenience sampling technique. Convenience sampling is a non-probability method that is usually used in qualitative research when the objective is to get an approximation to a specific topic(Kinnear, Taylor, Johnson, & Armstrong, 1993).

All the participants were initially briefed about the subject and purpose of the study and then after getting the consent for the data collection, some of the participants were requested to follow the link created via google forms in case of projective techniques, while the in-depth interviews were conducted in person as per convenient location of the participants.

Moreover, for the recruitment, participants were not required to be regular consumers of larger packaged sized immediately consumed food. In this study, it was not intended to get information from a sample population that corresponds to an actual market population but to gain an insight into the motives why consumers buy more substantial packaged sized food. For this reason, all the individuals who either or not purchase and consume from upsized food containers were recruited for participating in the study.

One hundred and twenty individuals participated in this study.70% of them were male, whereas 30% of them were females. The average age of participants was 23, and it ranged from 19 to 26. The participants were randomly assigned to different tasks. We conducted 25 in-depth interviews,35 narratives. Moreover, the remaining 60 were assigned to completion and construction techniques. The information about the age and gender of participants is summarized in Table 01 of the Appendices section.

### 1.4. DATA COLLECTION PROCEDURE

This section addresses the methodological process that the researcher has used to collect data. It includes procedures followed for all the projective techniques and interviews. We have used triangulation because the use of multiple methods helps to develop a comprehensive understanding of the phenomena (Patton, 1999). It also enables the researcher to validate the study by converging the information from different sources. Moreover, triangulation follows comprehensive scientific approach, in order to overcome any weaknesses in the methodology used for the study by measuring similar characteristics with the help of different methods. Hence, it helps in enhancing the quality and credibility of the data.

## 1.4.1. Storytelling / Narratives

This method allowed us to ask individuals to narrate their experiences in the form of stories. The purpose was to extract the maximum and accurate information without interrupting the respondents. For narratives, we followed the procedure guided by Dahl et al., (2003) who used the critical incident technique and were more concerned about the 'fact' and objectivity and considered stories as 'factual report.' We modified their instrument and asked the participants to "Recall, and describe in as much detail as possible, a recent situation where you purchased a food product (i.e., Burger, French Fries, Chips, Soft-drink, etc.) in larger package size? Be sure to describe the reasons to choose and what followed it"

The instrument works as an agent, hence evading the potentially tainting and personal effect resulting from person to person interaction. The presence of detail, with lack of interrogation, urging and probing, presumes that the narrator will provide complete and truthful information about the occurrence of events. Moreover, Participants give less time, and personal effort (in terms of explaining the self) to the research; and the issue of rapport is avoided as the personal role of the researcher is negated (Dahl et al., 2003)

## 1.4.2. Completion and Construction tasks

We used eight different stimuli for completion and construction tasks and collected pilot data from 15 respondents. However, after analysis of the pilot data, we excluded three stimuli, as we did not get consistent responses. Hence Five stimuli were left for collecting final data. All of them were pictures with incomplete dialogues or no dialogue at all to complete the thought, and participants were presented with each of them followed by the statement: "Please complete the dialogue as you think appropriate" and "Please comment about the picture as you think appropriate."

The stimuli used are mentioned in the appendix section. In the first stimulus, an individual having an upsized drink was depicted, and the respondents were asked to complete the sentence by mentioning the reasons for choosing a supersized bottle.

In the case of stimulus 2, the participants were presented with a Bubble and asked to comment about an individual looking at the food menu board.

The third stimulus depicted a couple in which the guy expressed his choice of supersized meal and was asking the girl about her decision.

The fourth stimulus led participants to construct a story looking at the picture in which two individuals are consuming a Burger and Fries.

In the last stimulus, two persons were shown to discuss why consumers might not opt for the upsized option, and the respondents were asked to complete their dialogue.

# 1.4.3. In-depth Interviews

Finally, we conducted in-depth interviews. First, we took the consent from all the participants and informed them about the purpose of collecting data. The in-depth interviews were conducted face to face as per the informants' convenience. Every interview lasted roughly 30 to 45 minute's inquiring questions to take the necessary information from different statements. Data obtained from the interview was recorded in two ways. First, we took the notes and recorded the conversations. Second, we transcribed them later for analysis. The interview guide used for the data collection is mentioned in the Appendices section.

### 1.5. DATA ANALYSIS

#### **Narratives and In-depth Interviews**

We analyzed the stories/narratives as well as interviews with the help of thematic analysis. The stories were already received in a transcribed form, whereas we transcribed the interviews first by listening to tape-recorded interviews and spot code that by organizing and sorting the collected data.

Coding is the essential step of data analysis that creates the link between data collection and its interpretation. As the commonly used methods that emphasized coding the data are Grounded Theory Thematic Analysis and some versions of Phenomenology. Both Grounded Theory(e.g., Charmaz, 2014) and Thematic Analysis (e.g., Braun & Clarke, 2006), are heavily identified with coding, as is the version of Phenomenology known as Interpretive Phenomenological Analysis(e.g., Flowers, Larkin, & Smith, 2009). These two approaches are sometimes combined, starting with the coding-oriented methods being used to get at the

content of the data, followed by narrative analysis to show how participants actively work with and use that content.

For analysis, we used N-Vivo 12 and categorized the data via thematic analysis technique to refine it. In the thematic analysis, the purpose is to create the themes based on common words and ideas which are used more frequently in data (Owen, 1984). This process involved the four-step process, i.e., transcription of data, the creation of codes, concepts and finally surfacing

Themes related to the research question or study phenomenon (Attride-Stirling, 2001). Therefore, the incidence of specific terms, expression, and situations specified by the respondents are significant for the coding. The more recurrent a response, the more valid a theme will be in the first phase of analyzing the collected data reviewed repeatedly to get familiar with the reactions and then codes emerged from the data. These codes then arranged to see whether they can group aptly. Afterward, the coding schedule generated to give flexible definitions to the selected codes. The refinement of these codes leads to distinct concepts. The given definitions allowed assessing the appropriateness of data with the coding scheme. Once data was rearranged the specific codes are donated to it. Similar concepts are categorized to generate themes in the third step of the analysis which enables the reflection of different ideas conveyed in the coding process. Based on common ideas global themes created in the last phase of the study. By following this process, all contents are categorized, and irrelevant information is removed from the collected data. The relevant codes and emerging themes are given in table 04.

#### **Completion and Construction technique**

The data obtained through the use of completion and construction technique was analyzed according to procedure guided by Vidal, Ares, & Giménez, (2013). First, a search for recurrent terms within each stimulus was performed, and terms with similar meanings were grouped in different categories. This classification was performed based on the personal interpretation of researchers, trained in content analysis. After individually evaluating the data, the definitive categories were obtained by consensus. Categories mentioned by at least 5% of the consumers were considered for further analysis. Frequencies in each category were determined by counting the number of consumers that used those words or phrases to respond

to the task. Table 05 mentioning the rate of mention for each stimulus is given in Appendix section along with its data cloud (Figure 05)

### 1.6. RESULTS AND DISCUSSION

The following themes emerged from the overall data analysis. The themes such as Price quantity trade-off, Hunger, Liking and palatability of food, Financial saving, Quantity, health concerns, Food waste, and Affective outcomes emerged through Narratives. Additional themes such as sharing, social influence, Price consciousness, and social status emerged through completion/construction technique. All these themes were validated through in-depth interviews along with the emergence of three new themes like health consciousness, quality and leisure time. As shown in Table 04 below:

#### **ANTECEDENTS:**

#### **Price Quantity Trade-Off**

Consumers think that the purchase of larger packs of food results in price quantity trade-off. They perceive the larger packages to be more economical, and they often get the benefit of having more quantity at a lower cost per unit. As illustrated next:

One of the reasons for buying the larger size is its price as opting for larger size saves money. (Respondent 01).

Moreover, consumers perceive that apart from lower per-unit cost, the larger packaged sized foods also have more quantity to consume.

Well I recently purchased chips, I got XL pack, the main reason for doing that was 25% off price on bigger package of lays which if I remember correctly was 250 grams, so I enjoyed more quantity of chips (Informant Narrative)

Mostly the larger package sizes are sold at lower unit prices, Apart from the rare situations when there is fierce competition on smaller sizes or when retailers use small sizes as loss leaders. (Sprott et al., 2003).

Marketers can decrease the unit price on larger packs and enhance value for consumers as they incur less cost on product packaging(Chandon, 2013). Moreover, Larger size packages

have higher prices but lesser unit prices (Granger & Billson, 1972). Despite the commonality of this notion, it's inferred that consumers associate size and unit price of the product, and they associate smaller sizes with higher unit prices. Indeed, Wansink, (1996) has authenticated this axiom, which explains that smaller packages are opined to have higher unit prices in almost the majority of the product categories. It reveals that promotional offers on price encourage consumers to choose large size packages and purchase more because it decreases the unit cost and provide increased aggregate volume.

As pricing plays a significant role in every purchase decision; therefore, it is the most dominant antecedent behind the choice of larger packs. As a result, the consumer exclusively pays more attention to the price. According to the findings from the completion and construction techniques, the frequency of mention for the pricing and quantity benefit is 42% and 41% respectively.

Putting aside the consumers who buy the larger packaged products because of its more quantity and lower per-unit price, there is a particular group of consumers who also consider other reasons while making such decisions, as discussed below.

#### **Sharing:/Collaborative consumption**

Consumers believe that they buy the larger packs of food or sometimes in the forms of menus or the deal so that they can easily share the food with their friends and family and this finding is authenticated through all the data collection techniques. Almost 70% of respondents mentioned it while looking at the different stimuli during completion technique phase.

I find it better to buy a large size of coke by paying some extra money and then asking for an empty cup or plate to share it between the two of us, for instance, we buy an upsized drink or 500ml pet bottle of coke and then ask for an empty cup to divide it between the two of us (Respondent 07)

Consumers also believe that buying the deal or more substantial sized food not only helps them share the food but also helps in sharing the cost per head. This sharing helps in decreasing the per-unit cost even further compared to buying the same food in a small size. Moreover, this collaborative consumption brings more variety in their food options, and they get to eat more from it as stated below:

A few days back me and my friends went to McDonald's, Initially, we thought of ordering a big mac(beef) burger separately, its price was 590 rupees per burger, but when we checked for the deals, we found that there was a deal including 3 things (jumbo fries+ 1.5 liters cold drink of our choice plus 4 big mac. It seemed quite economical to go for the deal as compared to have burger fries and cold drink separately, and the price of a burger was 590 so in deal we got all in just 2790, so we saved our money by not getting separately and also got more food to share, and I believe we consume more than usual by this (Informant Narrative).

This collaborative consumption does not come without the adverse effects on consumer health and wellbeing, According to (Parker, Umashankar, & Schleicher, 2019) consumers buy more food than the group requires in collaborative consumption compared to personal consumption, which causes food waste as well as overconsumption. However, the way authors defined the food collaboration (each member is free to purchase the amount of food and share) is different than ours (group members mutually decide about the type and amount of food).

Moreover, consumers are often under the influence of the portion size effect. When portion size is served to consumers, it is usually assumed that this portion ought to be consumed by a person, and consumers expect the quantity of food being served to them by others is appropriate (Rolls, Morris, & Roe, 2002), and hence the consumed food is a function of portion size. Similarly, when it comes to such deals or more extensive menus, people are served more food per individual portion, but their appropriateness norm causes them to overindulge. Another reason for this overconsumption can be found in the concept of sensory-specific satiety, a situation in which a greater variety of food leads people to eat more than they would otherwise (Rolls, Rolls, Rowe, & Sweeney, 1981; Snoek, Huntjens, van Gemert, de Graaf, & Weenen, 2004). (i.e., if the food were monotonous). Sensory-specific satiety is satiety induced by monotony (i.e., a specific, repeated sensation), and it is alleviated when a variety of foods is available to reduce boredom.

Moreover, Consumers also mentioned that the presence of friends also causes overconsumption as they pay more attention to the company and less to the food. The existing literature refers to this phenomenon as a social facilitation effect. Previous research has explained that social influence is stronger when people eat with their close acquaintances than eating with less familiar people (De Castro, 1994).

#### **Hunger and liking**

Hunger and likeness are also responsible for the purchase of larger package sized food as this is validated through all three data collection techniques. More than 60% of respondents stated that whenever they feel hungry and like the food, they opt for the more substantial packaged size food.

A person buys the larger pack of food when he or she is hungry, and buying of more significant size option among the small and medium options shows that someone is very hungry or likes the food a lot (**Respondent 09**).

Interestingly, respondents also mentioned that whenever they are starving, they always feel the greed for eating the larger size to satisfy their hunger, however, while consumption they realize that they are already satiated and the portion size they chose for themselves is beyond their appropriate serving which causes them to overeat or leave the food uneaten.

People buy large containers because they think they are starving, but later realizing that it's beyond their appropriate serving which ends up in either overconsumption or food waste (Respondent 03).

Research suggests that Hunger is erroneously considered to be a significant element of consumption quantity(Glanz, Basil, Maibach, Goldberg, & Snyder, 1998; Vartanian, Herman, & Wansink, 2008). But the truth is it astonishingly plays a partial role in how much we eat. This leads us to the fact that consumers are not good at identifying the reasons behind their consumption behavior (Wilson, 2011, p.29).

A particular segment of respondents also believed that apart from the fact of how hungry they are at that moment of buying, what matters also is whether they like the food or not. If they also like the food a lot, then they often opt for more quantity if they perceive the food to be very tasty and bring pleasure. As stated in the verbatim:

People buy large when they like that food a lot. For instance, I buy a large size of fries because I love to eat chips (Respondent 25).

This is in accordance with the findings of Giesen, Havermans, Douven, Tekelenburg, & Jansen (2010), Food liking refers to "the palatability or pleasure obtained from tasting a given

food" and this palatability and pleasure drove from eating or smelling of tasty food influences consumer's food consumption (Mak, Lumbers, Eves, & Chang, 2012).

I had a mild hunger and had no intention to eat; therefore, I decided to go to McDonald's to buy coffee. When I entered the restaurant, the smell and taste of food drove my decision, and I ended up ordering a menu and did not realize how did I eat all the food despite having a milder level of hunger (Informant Narrative).

Research suggests that pleasure also influences consumers' size choice decisions (Haws & Winterich, 2013). Hence, Once the consumers realize the food to be tasty or palatable, then they eat a whole portion and don't find any reason for not indulging their appetite beyond the limit set by their primary portion in certain situations. (Herman & Polivy, 2005).

It will be plausible to say that the sensory cues of palatability augments the subjective feelings related to hunger and reduces the feelings of satiety (Rozin, Dow, Moscovitch, & Rajaram, 1998). As a result consumers overeat without being hungry and are never sure about the amount of food they must eat and hence they either rely on the visual cues provided by the container(Wansink, Painter, & North, 2005) or on prescriptive and descriptive norms to guide their consumption quantity behavior, as they are never sure about the amount of food they must eat (Herman & Polivy 2005).

Additionally, consumers also believed that people often overconsume their favorite food as their love for food never makes them realize that they are full enough to stop eating. It's difficult to say whether people overconsume because of their hunger or liking of the food. The terms hunger and appetite are reputedly interchangeably used, despite having a significant difference. "Hunger refers more to the need for food" (and is linked to physiology and deprivation) while "Appetite refers more to the desire for food, which is a function of the attractiveness of food", which changes not only because of deprivation but also (primarily) due to the palatability, accessibility, and other non-caloric food attributes (Herman & Polivy, 2005). It becomes more reasonable to argue that it's the appetite that has increased substantially over the years, and the marketing efforts have made food more attractive and palatable.

#### **Social Status:**

Interestingly, we also found that respondents believe that the reason for buying the larger pack is to convey their buying power or affordability to others and this finding was also validated through completion/construction technique as more than 35% of consumers associated larger size with status.

I believe people who buy large have better status (Respondent 01)

Similarly, respondents also mentioned that its common among people to show off in front of others as buying large container signal their status and level of affordability, especially for those who belong to lower middle class. As cited in the verbatim:

My observation about consumers is, for instance going to McDonald's or KFC is not a routine thing, so if someone goes there and eat or drink something they show off while ordering at the counter by asking for upsized drinks, etc. and then look around that way (Respondent 23)

Sadalla & Burroughs (1981) were among the first to argue that people tend to choose foods not only for nutritive and sensory reasons but also to bolster their public image. The authors demonstrated that people send messages about themselves to others using their food intake. Several scholars have associated larger sizes with higher status compared to smaller ones (Baudrillard, 1998, 2005) and the greater length (Schubert, Waldzus, & Giessner, 2009) and height(Dannenmaier & Thumin, 1964; P. R. Wilson, 1968) are often associated with status.

Moreover, people having low socioeconomic status perceive monetary objects to be larger, which is by value and size association (Bruner & Goodman, 1947). Similar findings are also validated in evolutionary perspective, signifying that bigger sizes are associated with dominance and better ranks (Rivers & Josephs, 2010). Consequently, the products having no integral status meaning such as soft drink cookies is also viewed to have status. According to Dubois, Rucker, & Galinsky (2012), consumers who chose the largest product size in the presence of medium and small option were perceived to have a better status, this tendency of status signaling was more common among consumers having less power. Also, our findings suggest that status is also considered as an antecedent for buying the more substantial sized among available food options.

Moreover, there is a general perception among the small-scale retailers in developing countries that the person who buys more or in bulk is superior, and as a result, they receive more importance from the shopkeepers. As stated below:

I had a General store earlier, and when someone asked for the larger pack of food, for instance, a large box of ice cream or a large bottle of soft drink, I considered that consumer to be superior and gave a better response (Respondent 20).

#### **Social Influence:**

Consumers' food-related decisions are also influenced by those around them. Respondents mentioned that their decision chooses among available package size options are also dependent on whether a person is alone or with someone. In such a situation, the decision depends upon the choice of others. This finding was also validated through our completion/construction technique as More than 60% of respondents mentioned mimicking the behavior of their colleagues/friends by choosing the same food and quantity.

I often buy the same food as my friends do, recently we went to McDonald's with a friend, she ordered a medium-sized chocolate milkshake, and I also did the same (Respondent 23).

Interestingly, social influence plays its role not only in food choice decisions but also in food quantity decisions. It was also validated when we asked consumers to respond on someone else's behalf via our projective techniques.

These findings are in accordance with previous research on social matching and mimicry. Individuals, when eating with acquaintances lean-to compare their food intake and choices irrespective of the portion size another person is having(Robinson, Tobias, Shaw, Freeman, & Higgs, 2011); however, consumers tend to imitate the consumption patterns of others and this imitation impact the inclination of consumers for products they consume (Tanner, Ferraro, Chartrand, Bettman, & Baaren, 2007). Hence, others' eating plans affect the consumers eating patterns, rather than their physiological requirements. These behaviors are reliant on the common standards perceived by the consumer such as belief about consumption patterns of social groups and consumer's value for the products that support social interaction and linking of values(Cova & Cova, 2001); these common standards also affect the choices and actions of

consumers. For example, when consumers are informed that other consumers have taken a large or small size of "junk food," then they either increase or decrease their food intake correspondingly(Pliner & Mann, 2004; Roth, Herman, Polivy, & Pliner, 2001). Likewise, participants are led to choose unhealthy food when they are informed that others have selected an unhealthy snack(Burger et al., 2010). Previous studies have described that decisions about consumption are affected by physically present people. In the retail context, people are prone to imitate the behavior of others(Argo & Main, 2008; Bearden & Etzel, 1982), though the person is not engrossed in any way, he/she is just present bodily(Argo, Dahl, & Manchanda, 2005). Moreover, The body type of other people also affects the food choices and portion size of consumers (McFerran, Dahl, Fitzsimons, & Morales, 2010).

#### **Price vs. Health Consciousness**

The decision to opt for a specific package size also depends on the perception of the individual whether he or she is more price-conscious or health-conscious. Findings suggest that the individuals who perceived themselves to be health-conscious frequently opt for the smaller pack of food, as they are more concerned about their health and believe in moderate consumption quantity. Moreover, health-conscious consumers are also perceived to have a better income level.

The person who is health conscious buys the smaller quantity, as he or she is not greedy, not concerned about saving but has more money and is willing to pay more for their health. They eat in moderation and eat as per their requirement (**Respondent 01**).

The health-concerned consumers emphasize on healthy diets (Chen, 2009) and are more concerned about their health; they are willing to pay little or no more for upsized foods or willing to pay price premiums for smaller packages of tempting products to voluntarily impose constraints on the amount they consume (Dobson, Chakraborty, & Seaton, 2017; Wertenbroch, 1998a).

Contrary to health-conscious consumers are price-conscious consumers, who are always concerned about the product's price. These individuals often choose the larger package size due to the price-quantity trade-off and the sense of saving that they obtain either in the form of not buying the product or by getting the better value for the price. Through completion analysis, we found that almost 30% of the respondents mentioned choosing the larger size

among multiple size options based on their sensitivity to price differences. Moreover, this was also validated through interviews, as stated in the verbatim:

When I see someone with a large pack, I believe he is an economical person and wants to take advantage of double quantity by paying less (Respondent 02).

Price consciousness is defined as "the degree to which the consumer focuses exclusively on paying a low price" (Lichtenstein, Ridgway, & Netemeyer, 1993,p.235). Such consumers are usually sensitive to price variances, willing to buy things at low prices, and set constraints on the amount they wish to pay (O'Neill & Lambert, 2001). Moreover, when these consumers come across the reference price ad or the discount, they tend to show higher intentions to search also (Alford & Biswas, 2002). According to Lichtenstein et al., (1993) the adverse role of price perception is to make consumers enhance their effort to look for lower prices. Their finding suggested that price consciousness is mostly related to "on sale," products and the savings derived from them. However, in case of supersized products, prices are set in a manner that they appear to be lower per unit to consumers on regular basis unlike sale situations, where prices are decreased only for a special event.

#### **CONSEQUENCES:**

In the previous section, we discussed the factors which cause consumers to choose the upsized option compared to other available size options. In this section, we consider the consequences; in other words, what happens when consumers upsize their food? We found multiple outcomes, which are considered below:

#### Value goal/Saving:

Choosing the larger sized option helps consumers achieve their financial goals as it helps them achieve their saving goal by opting for a better value for the money spent or spending less for the same option.

Recently, I come across the situation when I wanted to buy a soft drink. I needed a bottle of Pepsi for six people, and I believed 1.5 liters was enough for all of us. However, as I found 2.5 liters of the same container with a marginal increase of amount but with a higher quantity

of the drink, I purchased it. I found it a great deal; it seemed an additional quantity (Informant Narrative).

Apart from narratives, completion or construction, as well as in-depth interviews, also validated the financial saving objective of consumers. More than 65% of respondents reported about their financial saving goal being met through larger sized options. Moreover, consumers also mentioned that:

When it comes to immediate consumption, consumers often buy the larger pack owing to its saving benefit (Respondent 07).

According to Haws & Winterich, (2013), there are two pathways for attaining financial goals: saving by abating total money spent or saving by receiving better value for one's money. In case of supersized options, The consumer's sense "bang for their buck" as they get a decent deal. Moreover, the consumers' focus on value is steady with a utility per dollar measure of value (Hauser & Urban, 1986), which governs consumers to make a value-based choice.

Apart from saving money by getting a better deal, consumers also try to make their consumption decision to appear even more lucrative by choosing a deal in collaboration with friends; this results not only in an increased share of quantity but also in a lower price per person.

It's economical to buy large and share compared to buying the small one separately. You can save on purchasing anything in large and at the same time enjoy more variety (Respondent 04).

The consumers not only acquire the deal but also feel the pleasure from enriching their consumption of hedonic products(Naylor et al., 2006; Schindler, 1998; Stroebe, 2008) and at the same time feel as if they are acting in agreement with their value-based financial goal.

#### Health concerns/Overconsumption

Although consumers value goal is achieved when they choose the upsized option among the available size alternatives, however this apparent saving benefit also brings some hidden costs with itself in the form of health concerns, especially overconsumption. This notion of overconsumption is validated through all the data collection techniques, as almost 80% of respondents were concerned about weight gain or overeating.

Once consumers unpack a large pack of any food, they cannot stop themselves from indulging over food which causes them to keep on eating until the box finishes.

It often happens when I buy a large pack of lays; it increases my consumption, and it never lets me stop until it's over (Respondent 25).

Moreover, this notion of overconsumption was also validated through consumer narratives:

In the end, we were so full that we couldn't walk, and I was hoping for a full day rest to digest such dense food all at once (Informant Narrative).

Larger containers often lead consumers to overconsume. According to Wansink, Van Ittersum, & Painter (2006) when consumers were provided with a 24ox ice cream bowl, they consumed 15%-38% more than those who ate from a 16oz jar. Moreover, people consume more from the larger packs even when they do not serve themselves, and the impact of the larger pack increases food consumption beyond the effects of serving size. According to Marchiori, Corneille, & Klein (2012) consumers were found to consume 129% more chocolate candies from a bigger container despite the persistent serving size

Although the respondents were also aware of the fact that consuming too much quantity of food is not suitable for their health, still, they prefer the larger food container to enjoy the pleasure of consuming more by paying less.

I believe consuming that much quantity is not good for health as we feel so full that it becomes tough to walk even but still, we continue eating unless the plate is clean or the pack is finished, and sometimes it's our discussions with friends that go on, so the consumption also goes on (Respondent 01)

Consumers often eat more than their appetites, owing to the pleasure derived from eating and the expected reward of persistent consumption(Berridge, 2009; Mela, 2006b). Apart from the own attributes of food, other environmental influences such as Social factors also significantly influence the amount of food that consumers eat (Wansink et al., 2007). Individuals consume extra if others around them eat more, mainly if the people being imitated are not obese (Herman & Polivy, 2005; McFerran et al., 2010).

#### **Food waste:**

Moreover, one of the many consequences we found was the wastage of food resulting from the purchase of upsized package sized food or deal. According to our completion technique findings,50% of Consumers reported struggling to finish the larger pack of food in one sitting cause the food waste.

Sometimes, when I buy a large pack of food, I am never able to finish it. As a result, the food gets wasted, and I believe this is the case with most of the people as they often buy substantial quantity because of low prices, but they can't finish it and throw it away (**Respondent 04**).

Similarly, respondents also mentioned about food waste in their narratives:

Although it's my bad, I waste a lot of food as I find the larger packs and menu deals to be too much for me, but I still order it because it does not cost me much of extra money. So, I allow myself to eat what I can because sometimes I feel for the fries while consuming burgers, so I just finished my burger and took some from the chips and completed my drink (Informant Narrative).

The price change is more important to consumers than difference in size(Çakır & Balagtas, 2014) and consumers are leaned to underrate the increased food in larger packages(Chandon & Ordabayeva, 2009) which are highly associated with more food waste (e.g., Wilson, Rickard, Saputo, & Ho, 2017). Most of the times, consumers purchase the food quantity beyond the scope of their stomach and appropriate consumption norms (Block et al., 2016) and they try to justify their food waste by stating that it's out of their control and retailers to have determined the size of portions (Bartling & Fischbacher, 2011; Block et al., 2016). Moreover, consumers who are concerned about food waste are less likely to waste food. However, these consumers are also more prone to deals. But when consumers perceive that buying perishable foods on promotions may lead to more food waste then they try to avoid buying via such deals (Borgne, Sirieix & Costa, 2018).

According to our findings, both overconsumption and food waste are negatively related to each other, as there is a segment of consumers who overconsume to avoid food waste.

I do not like to waste food as I consider it to be against the teachings of my religion, so I often try to finish the plate at home, but when I eat outside and order a deal, then I find it hard to finish the food but still I do it (Respondent 16).

Interestingly, food waste and sharing are also negatively related. Whenever consumers find it hard to finish the food, they take the leftover home so that they can share the meal with family members, or they give it to the restaurant personnel to share the food with someone in need. This finding is contrary to the results of (Parker et al., 2019), consumers are more likely to take the food home in personal consumption context, whereas our results suggest that food can also be taken home in collaborative consumption to avoid the food waste.

The quantity was too much as we were unable to finish the eight chicken pcs and that food would have been wasted if had not taken that home with me, and it was shared with my family, and they ate it, and sometimes I share that food with some poor people in the neighborhood. (Informant Narrative).

As stated by Falcone & Imbert, 2017; Lazell (2016), Food sharing can work as a remedy against food waste and overconsumption. We can better understand consumers' food waste behavior by paying more attention to their practices, routines, and habits, considering the concealed nature of food waste. Furthermore, the sharing practices related to food purchase and consumption could decrease food waste of organic food for households who are worried about the economy and environment(Morone, Falcone, Imbert, & Morone, 2018). Moreover, another possible solution to food waste can be varying product sizes. According to Wilson, Rickard, Saputo, & Ho (2017) consumers anticipate food waste from larger sizes compared to smaller ones, but still, they buy it to satisfy their hunger and waste food in the process. Hence their quantity discount-based saving may be lost.

#### **Affective outcomes:**

We also found that the consumption of hedonic food results in certain feelings and emotions like pleasure, happiness, joy, satisfaction, and guilt.

Consumers feel happy as well as satisfied while consuming the food in larger quantities as it gives them more pleasure and they can enjoy more volume of food by paying just a few more rupees. In other words, getting the "Bang for their Buck" results in more pleasure and satisfaction. This finding was also validated through completion technique as 25% of

respondents associated their consumption from an upsized container with pleasure and happiness.

Emmm...[pause] buying large gives a lovely feeling of having plenty of food to eat, brings great pleasure and joy to me, and becomes the reason for my satisfaction. (Respondent 20)

This is in accordance with previous research that the Consumers not only acquire the deal, but it also brings them their desired food with more quantity at the lower unit price, which results in more consumption pleasure and satisfaction explicitly of hedonic products(Naylor et al., 2006; Schindler, 1998; Stroebe, 2008).

Apart from consumers who seek pleasure from the consumption of larger packs, there exist specific consumers who feel guilty while buying and consuming from the upsized packages, but their guilt is sometimes justified because of getting better value for money.

I love Fast food, and that's why I eat it a lot, but sometimes I feel bad about this habit of mine as it's not good for me (Respondent 13)

Although the selection of a hedonic option is pleasurable(Stroebe, 2008), but it is often linked with a feeling of guilt as well as responsibility (Lascu, 1991). It involves anticipated regret (Bell, 1982), cognitive dissonance(Festinger, 1962) or rational self-perception (Bem, 1972).

Respondents mentioned that they feel guilty in two ways: Firstly, consuming from larger packs causes overconsumption of food which adversely affects their health. Secondly, larger bags are the primary cause of food waste. Moreover, there are certain conditions in which consumers try to have a trade-off between either of guilt conditions, as they try to overcome the guilt of food waste by over-consuming the food, but they can't avoid both.

I was feeling bad because of overconsumption of food, but I had no other option as I could not stop myself from eating as wasting the food had made me felt even guiltier, so I decided to clean the plate (Informant Narrative).

The same guilt related finding resulting from overconsumption and food waste was also explored through in-depth interviews. As verbatim states:

I feel guilty because buying larger makes me eat a lot which is not suitable for my health and at the same time, it results in more food waste which can make me even more guilty (Respondent 01).

It can be stated that consumers feel guilty when it comes to hedonic options, but they still buy it because of its pleasure orientation. However, when it comes to larger package sizes, consumers do buy them, which means that guilt is justified while making purchase decisions; however, it re-emerges as soon as the consumption episode finishes.

I went to a restaurant with a friend, and I was not that hungry, so I made my mind to go for coffee, but when I saw the price upsized food options, I decided to go for that instead of coffee. I was happy with my choice, but post-consumption, I was feeling bad and was cursing my decision as I ended up eating plenty of food (Informant Narrative).

So, the question arises what causes this guilt reduction during purchase decisions? Why don't they feel bad while deciding and opting for buying large? If we say they do feel bad, then why do they still choose for large? The answer to these questions can be found in the verbatim stated:

I feel less guilty on buying the larger quantity of food due to a lower price for extra food, however, if I had to buy the same food at more price than I would feel guiltier and I would not opt for the larger quantity (Respondent 05)

This means although consumers feel guilty, the intensity of that guilt isn't significant enough to nudge consumers away from the pleasurable feeling of hedonic options. It happens because of the justification effect provided by the pricing mechanism. According to Haws & Winterich (2013) supersize pricing provides value-based justification to consumers for immediately consumable hedonic foods which results in more considerable size choice. Hence it can be proposed that the pricing benefit or financial saving resulting from the purchase of more significant size reduces the guilt compared to the level of guilt that consumers might feel while opting for the larger package size of food at its full price. This financial saving goal provided by the non-linear price of the larger container of the food justifies consuming, the more quantity of hedonic food, and this value-based justification reduces the level of guilt that the consumer would have felt otherwise if they did not get the pricing benefit.

The consumers might justify their desired but needless purchase of products by saying that they made a partial payment. In favor of this, Zheng & Kivetz (2009) exhibited that sales promotions boost the purchase probability of hedonic products but with a modest impact on utilitarian products. Khan & Dhar (2010) stated that a bundle discount improved the purchase possibility if the discount seemed to characterize savings on the hedonic product compared to the utilitarian product in the case of cross-category bundles. Similarly, Choi, Li, Rangan, Chatterjee, & Singh (2014) explored that the odd ending pricing reduces the guilt and enhances the likelihood of purchase and consumption of hedonic items.

To our surprise, findings also suggest that the guilt resulting from the consumption of food from larger package sizes can be moderated by sharing the meal with others, especially the poor. As illustrated below:

I was repenting my decision to buy a large pack. I finally had to offer those chocolates to my friends, and I hardly ate 3 of 10 chocolates. I should have purchased one chocolate rather than the pack of 10 and had not spent more; however, sharing them made me feel relieved. (Informant Narrative)

I often buy a large pizza, but it either results in overconsumption or food waste. As a result, I start to feel bad. Therefore, to overcome that bad feeling, I try to share the food with the poor's now as it gives me mental peace, and I feel happy (Respondent 07).

The literature states that people are often looking for ways to overcome consumption guilt, and altruistic behavior plays a significant role in that regard (U. Khan & Dhar, 2006; Strahilevitz & Myers, 1998). Generous actions can offset the guilt linked with self-centric consumption and aid as the justification for the purchase of hedonic products (U. Khan & Dhar, 2006). Moreover, Lee-Wingate & Corfman (2010) discovered that by involving in a kind behavior to someone (i.e., giving a promotional product to a friend), consumers could lessen the guilt associated with decadent products. Interestingly, according to our findings, sharing can also play the role of moderator for reducing the feeling of guilt arising from the decision of opting for supersized foods.

#### **Quality:**

Our findings also suggest that consumers hold the intuition that when they opt for the larger package size of the food or when they buy a deal at a restaurant then there are chances that the

quality of food is compromised as compared to consuming the same food in a small pack. As stated by the narrative:

I was happy at the time of order placement; however, the post-consumption feeling was not good. I decided not to avail the same deal again. And I would not even prefer to visit the McDonald's again (Informant Narrative)

Moreover, this very finding was also validated by in-depth interviews, and we found that the food quality is compromised in pursuit of price-quantity trade-off.

I have experienced that the food packaged in large packs don't have the same quality as the small ones. Perhaps that is the reason for a low per-unit price (Respondent 14)

Consumers believe that the companies sell more quantity at a lower unit price by compromising on quality. According to Mathur & Qiu (2012) and Yan, Sengupta, & Wyer Jr (2014) package size of the product influence, the quality perceptions of consumers as they consider smaller sized products to have better quality compared to the larger one and this happens because consumers associate smaller package size with higher unit price despite its over lower unit price. This suggests that consumers perceive larger-sized food products to have a lower unit price and hence lower overall quality.

#### Leisure time

Lastly, we found that consumers also buy large when they have the intention of spending more time inside a restaurant, either chatting with friends or enjoy the atmosphere around. Our findings from the completion technique suggest that more than 15% of respondents quoted about this theme. Moreover, this theme was also validated through our analysis of indepth interviews. As stated below:

Sometimes when I want to spend more time in a restaurant, I buy large (Respondent 10)

Spending more time at a restaurant is mentioned as both the antecedent as well as a consequence for choosing larger meals.

It often happens that when I buy large, I sit longer inside the restaurant (Respondent 19)

# 1.7. Conclusion of Qualitative study

Our findings suggest that consumers purchase a larger package size because of several reasons, such as lower price per unit, hunger, likeness, and social influence.

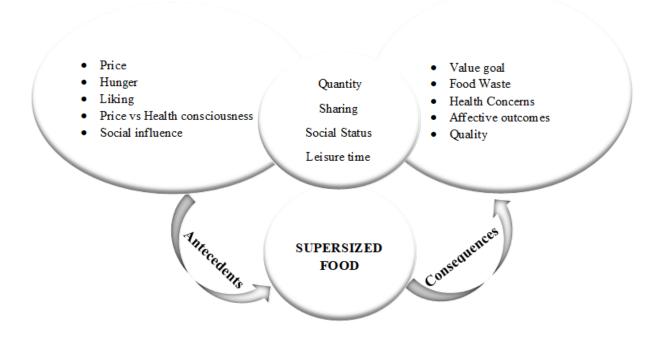


Figure 05: Synthesis of Qualitative research

All these factors are the antecedents behind the purchase of the upsized food, especially in the context of immediate consumption. Besides, the acquisition of a larger package size also results in inevitable consequences, which appear in the form of saving, health concerns, food waste, guilt, and satisfaction. Interestingly, our findings also suggest that factors such as sharing, social status, quantity, and leisure time can be both the antecedent as well as a consequence depending upon the situation the consumers are facing.

Many of these findings can be related to Means-End theory such as product attributes like price, taste, palatability, and quantity are the means that consumers use to make their food-related decisions to achieve their goals in the form of getting better value for their money by obtaining larger package size. However, this size choice decision also brings some positive as well as negative consequences as suggested by the means-end theory that consumers always make decisions to obtain desired outcomes and to avoid undesirable consequences. For example, in case of buying more significant size consumers get to eat more quantity of food

which results in more satisfaction, financial saving and pleasure but at the same time also brings negative consequences in the form of overconsumption and food waste and guilt.

Why some consequences are more relevant to consumers than others? Literature suggests that consumers' actions are goal-oriented(Bagozzi & Warshaw, 1990; Huffman & Houston, 1993; Pieters et al., 1995). Consumers try to attain or refrain from particular consequences to reach more essential goals or end states. Hence, the consequences which are closer to the focal goal are given more priority over others. For instance, in situations when consumers give more importance to their value goal then the product attribute such as price will play a significant role which will lead consumers to opt for the larger package size, this increased quantity helps consumers accomplish their value goal. On the contrary, if the consumers are more focused on their health goal, then they will not pay more attention to the pricing attribute and will opt for moderate quantity, for the attainment of their health goal. Hence it is logical to say that the desired end state of achieving a health goal vs. a value goal shapes consumers' decision to opt for larger package sizes or not, based on the available pricing attribute of the product as it's linked to the focal goal.

# SECTION 2 – RESEARCH GAP AND HYPOTHESIS DEVELOPMENT

# 2.1. RESEARCH GAP FOR QUANTITATIVE STUDY

The self-regulation of large portions is often considered to be the most problematic, especially at consumption moments. In delayed context, also people buy and stockpile the food and feel the temptation to consume all in one go (Chandon and Wansink 2002). Therefore, addressing the decision related to size choice, purchase moment is more practical than consumption moment. Thus, pricing is the most crucial factor as also proposed by our qualitative study.

In the prior research about nonlinear pricing, (R. J. Khan & Jain, 2005) focused their attention on the price discrimination practices of retailers and their profitability for products that are going to be consumed over time such as an analgesic. However, they did not evaluate its implications in the consumers' perspective. Similarly, Cohen (2008) studied the application of non-linear pricing mechanism in the paper towel industry, and he found a considerable share of the disparity between per-unit price and package sizes, which can be credited to price discrimination.

To our information, there were not many empirical studies that explicitly discover the usage of product package size as a price discrimination instrument in the consumer-packaged goods industry except Haws & Winterich(2013). They explored the role of supersized pricing mechanism in the consumer food decision-making process for immediately consumed goods (Milkshakes, Chips, and Chocolates) by examining consumer decisions in the context of goals where they focused on the interaction between financial vs. health goals.

Building on their suggested future research direction about implementing their conceptual framework to other parts of the world, we are going to check its generalisability in developing as well as a developed country such as Pakistan and France. It will be fascinating to see how Pakistani consumers who belong to a developing country reacts to such marketing practices. This research is very relevant to Pakistan considering the food industry being the second

largest industry of the country sharing more than 17% of GDP; the country's love for food and concern for overconsumption and obesity. Moreover, the consumers are not unaware of supersizing mechanism; having low per capita income and more interest in the price makes this study even more exciting. Multiple package sizes exist for the same product everywhere, and there are a variety of package sizes available in the markets of Europe and USA (Agarwal, Grimm, and Narasimhan (1993), Abdulai, Kuhlgatz and Schmitz (2009). Although French consumers are famous for eating in moderation, the facts suggest otherwise, as France is also under the influence of overconsumption and obesity is expected to reach a high of 21% by 2030 with Spain as per OECD 2017 report. These facts also make French population relevant to the purpose under study.

Moreover, Haws and Winterach (2013) did not use the nutritional label as a moderator to enhance the importance of health goal, which is more realistic for consumers while making food choices inside a restaurant or in a supermarket. Also, the nutritional labels are posted in front as well as the back of the product in real. We will focus on FOP single nutrient-based label and propose that it will make consumer health goals prominent by attenuating the influence of supersize prancing.

Moreover, we are also going to extend their framework in a delayed consumption context whose health concerns are also relevant in the domain of health and value goal. By doing so, we offer both theoretical and managerial contributions.

To capture the complexities of purchase decisions, where two significant and dissimilar, domains of health and finance meet. This dissertation brings a kind of framework that explains the consumers' decision-making process by piloting both the health and value goals together. Consumers may easily justify the diminished health goal importance in the pursuit of the financial goal. Considering the decreased attention towards the health goal, we propose that by using nutritional labels and health goal prime we can enunciate the priority given to health goal and overcome the appeal of financial goals that are easy to justify.

Moreover, considering the nature of hedonic products, consumers often associate a sense of guilt to them (Choi et al. 2014); hence this research will also take into consideration the role of the anticipated consumption guilt and its subsequent effect on size choice, through the justification provided by supersized pricing in the context of products perceived as unhealthy and healthy.

Considering the importance of our food-related decisions and their impact on an individual's health, we will investigate the role of supersize pricing which creates a conflict between consumer's health and value goals. Moreover, the Supersized pricing that is responsible for conflicting health and value goals of consumers. As a result of supersized pricing consumers become myopic about food (Shabir and Cova 2019); as a result, they shift their importance from health goal towards a more salient value goal. Moreover, this thesis also suggests a more practical approach to make the health goal more salient and assist consumers in making a better food-related decision under easily understood and comprehended nutritional labels. This not only educates consumers about the necessary dietary requirements but also helps them make informed food choices, that can encourage moderate consumption quantity.

Moreover, this dissertation will explain the confusion that consumers feel while taking an immediate consumption decision. Where the two main goals of health and finance intersect each other, and it will also explore how these two different domains interact when we have more or less hedonic product types, that are perceived to be healthy vs. unhealthy. This research will also generalize the implications of means-end theory in understanding the reasons behind consumers' purchase decisions of larger packages and the role of goal conflict theory in this new domain of goals (health vs financial).

On the whole, this research offers new insights into the decision-making process of consumers and the resulting consequences, especially when it comes to the consideration of two distinct but crucial goals while making food decisions in both the immediate and delayed consumption context.

Based on the research problems mentioned earlier, the following research questions are formulated.

# 2.2. RESEARCH QUESTIONS FOR QUANTITATIVE STUDY

- 1. How Supersize pricing, compared to linear pricing, influences consumer's size choice decisions in case of goods purchased for immediate consumption?
- 2. To what extent nutritional labels moderate the influence of supersize pricing on consumer size choice decisions for products purchased for immediate consumption?
- 3. Does supersize pricing, compared to linear pricing influences, consumption quantity for products purchased in immediate consumption context?
- 4. To what extent nutritional labels moderate the effect of supersize pricing on consumption quantity in case of products purchased for immediate consumption?
- 5. Does the same mechanism between health and value goals exist in case of a delayed consumption context?
- 6. How Supersize pricing, compared to linear pricing, influences consumer's size choice decisions in case of healthy vs. unhealthy food products that are purchased for immediate consumption?
- 7. How does supersized pricing influence anticipated consumption guilt compared to linear pricing? And to what extent this guilt effects size choice?

### 2.3. HYPOTHESES DEVELOPMENT

Along with the literature review and emerging themes from the qualitative study, we developed the research hypotheses, based on which a conceptual model is proposed. The model aimed to understand counterfeit branded product consumption from a brand perspective. By investigating the interpersonal and personal aspects of consumer value; the model linked the counterfeit branded product consumption with authentic brand consumption for a more comprehensive understanding of counterfeit consumers' behavior. Figure 06 below presented the processes of conceptual model development.

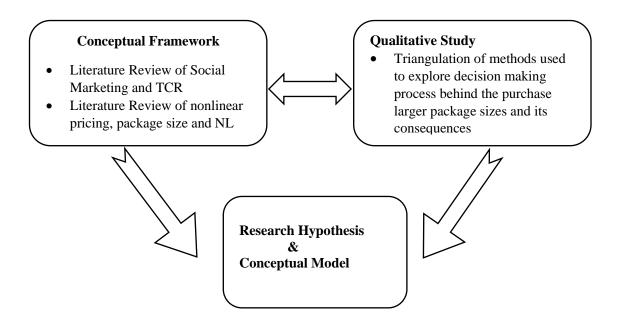


Figure 06: The general processes for the conceptual model development

# 2.3.1 How Supersized pricing leads to increased package size

Multiple package sizes exist for the same product everywhere, and there are a variety of package sizes available in the markets of Europe and the USA (Agarwal, Grimm, and Narasimhan (1993), Abdulai, Kuhlgatz and Schmitz (2009). This practice still prevails, chiefly within the fast food industry(NANA, 2002) for instance, Starbucks announced the 31-ounce Trenta by paying only 50 cents extra compared to its 24-ounce Venti (Van Dyke 2011). Moreover, Larger size packages have higher prices but lesser unit prices (Granger & Billson, 1972). Marketers can decrease the unit price on larger packs and enhance value for consumers as they incur less cost on product packaging(Chandon, 2013).

Despite the commonality of this notion, it's inferred that consumers associate size and unit price of the product, and they associate smaller sizes with higher unit prices. Cohen (2008) studied the application of non-linear pricing mechanism in the paper towel industry, and he found a considerable share of the disparity between per-unit price and package sizes. Non-linear pricing and packages size provides consumers with an offer of getting more discount per unit for buying extra quantity (Dolan, 1987; Gu & Yang, 2010). Consumers can enhance their shopping carrier by augmenting their portion of the purchase at a macro level with the help of nonlinear pricing (Ma et al., 2011).

Favoring this mechanism, Means end theory states that consumers take their decisions under conscious awareness. For instance, it assumes that consumers must choose consciously among two or three alternatives (selecting a small or large bottle of coca-cola). Moreover, the rational choice theory asserts that people often prioritize among the available options, which allows them to identify which option to prefer based on the available information related to costs and potential benefits to maximize utility (Cornish and Clark 1986). Similarly, a rational consumer finds it better to choose the more significant size option offered under supersized pricing, owing to its ability to maximize the total utility not only per dollar spent but also in terms of consumption quantity. Such pricing strategies give consumers the financial benefits and make them experience the happiness of obtaining better value for their money in the form of a discount on purchase (Naylor et al., 2006), and it also enhances the value involved in the transaction (Grewal et al., 1998).

Moreover, Meana-End theory suggests that, during consumption, product features or attributes produce immediate and tangible consequences that are experienced directly by consumers, and the consequences resulting from the attribute make it more or less salient. Sometimes consumers give more importance to specific product attributes "because of their ability to deliver desired consequences or to avoid undesirable ones" (Woodruff & Gardial, 1996). Henceforth, it is reasonable to assume particular attributes to be related to specific consequences; and supersized pricing compared to linear pricing works as the most salient and relevant attribute of the product which dominates consumers' decisions while evaluating different size choices. It will be reasonable to say that the choice of larger size brings consumers the desired consequences in the form of financial value and pleasure.

As consumer behavior is goal-oriented(Bagozzi & Dabholkar, 2000), consumers consider certain products due to their (products) ability to bring about desired outcomes or avoid undesirable consequences (Woodruff & Gardial, 1996, p. 69). Therefore, it can be inferred that some product attributes may be perceived as promoting some outcomes. In food consumption context, nonlinear pricing attracts many because of its ability to help consumers purchase the desired food with more pleasure, at a lower cost per unit (Wansink, 1996; Haws and Witnerich 2013). Building on this, we propose that supersized pricing may influence consumer's decisions when it comes to choosing among multiple package size options. Hence, consumers will choose the larger package in case of supersized pricing, compared to linear pricing.

H1: Supersized pricing is positively related to size choice.

# 2.3.2. How consumers focus on value goals influences health goals

In circumstances where consumers face several goals at once, they tend to concentrate on attaining one goal at a time, often at the cost of other goals (Baumeister, Heatherton, & Tice, 1994) as their emotions override their cognition(Shiv & Fedorikhin, 1999). Mostly, the goal which is more prominent in the given environment will take priority over rest of the goals (Ariely & Levav, 2000; Fishbach, Friedman, & Kruglanski, 2003; Mukhopadhyay, Sengupta, & Ramanathan, 2008; Shah & Kruglanski, 2003) and constrain the approachability of competing goals via a shielding process (Shah, Friedman, & Kruglanski, 2002). Most of the literature states that there is a trade-off between consumers' decision to opt for the short-term pleasure related desire and long-term goal that they wish to acquire. Consumer's often inclined towards the short time desires over the long term behaviors which are desired more (Carlson, Meloy, & Miller, 2012; Dhar & Simonson, 1999; Hoch & Loewenstein, 1991b; Laran & Janiszewski, 2008; Zhang, Winterich, & Mittal, 2010). For instance, if consumer intends to save money for the long term, any short-term desire to purchase something will refrain him/her from the long-time desired behavior of saving.

Moreover, building on goal conflict theory which states that consumers often face a conflict in the eating domain, such that their goal of eating for pleasure becomes incompatible with goal of weight control, and hence the goal which is most salient dominates (Stroebe 2008). Constructing on this research, we report the dynamics involved in a single choice resulting in the interaction of two different goals from two distinct spheres such as eating, which is related to health domain and spending which is associated with the realm of finance. Previous studies including goal conflict theory suggest that the conflicting goals result in goal failure, as one goal may be repressed (Stroebe 2008; Shah et al., 2002). Furthermore, significant trade-offs in choice are central to more depletion (Wang, Novemsky, Dhar, & Baumeister, 2010), which advocates that the uncertainty concerning the application of a suitable standard may lead the consumer to a decision which will maximize the pleasure(Baumeister et al., 1994; Shiv & Fedorikhin, 1999).

As mentioned previously, products that have worth in terms of the attainment of goals that are desired by customers, this idea is in accordance with the level of achievement of goal and is relatively better predictor of customers' future behaviour than the product attributes and

consequences(Gutman, 1991; Olson & Reynolds, 1983). The Means-End theory considers consumers as people who make their decisions motivated by the goals they set; their behavior is also based on the choices that lead them to the fulfillment of desired results. Hence when product attribute helps a consumer in attainment of their goal or desire consequence be it health or value, consumers will probably go for the realization of that goal considering the consequences experienced through it. As a result the selection of one alternative size choice will bring the desired consequences for consumers in the form of financial saving, and consumers trade-off their desired consequences with undesired ones (Gutman 1982).

Based on the phenomenon, we propose that when consumers encounter the opportunity of attaining a financial value goal by buying the bigger size of immediately consumed product at a lesser per unit price (i.e., nonlinear pricing), the importance of the health goal declines. It happens due to the nonlinear pricing mechanism which eases the decrease in the significance positioned on health(moderate consumption of unhealthy products); since this goal is dominated by the value-based financial goal, gained from obtaining a larger size, which leads to more significant size choice (Haws & Winterich, 2013).

Moreover, this attention shift from diminished health importance in the existence of nonlinear pricing occurs as the value aids in the form of justification for the hedonic choice of unhealthy foods, mainly in larger sizes. Similarly, consumers favor paying in terms of time than money when it comes to hedonic products compared to utilitarian products (Okada, 2005). (U. Khan & Dhar, 2010) demonstrate that when saving is positioned as an appropriate portion of a hedonic bundle, the purchase of such products increases.

These results specify that justification is predominantly imperative for hedonic products. Although consumers gain pleasure in consumption of such products, situational factors that offer a reachable rationale for further indulgent behaviors affect choice (Sela et al., 2008), in a way that enables indulgence. Consequently, considering the desire to make most of the pleasure (Baumeister et al., 1994; Shiv & Fedorikhin, 1999), consumers lower their importance on health and try to justify this behavior via the value provided by the purchase of a bigger size in case of nonlinear pricing. In a nutshell, supersized pricing offers situational justification to enhance the purchase of hedonic products. Both procedures (reduced health importance and value-based justification) effect size choice. Hence, we propose:

H2: Health importance mediates the positive relationship between Supersize pricing and size choice

H3: Value-based justification mediates the positive relationship between Supersize pricing and size choice

# 2.3.3. Overriding the influence of nonlinear pricing on size choice through Nutritional Labels

Consumers often find it hard to regulate the consumption of food on their own (Baumeister, 2014; Metcalfe & Mischel, 1999). Therefore, they rely on external cues to help them monitor their consumption. For instance, the kind of information communicated by nutritional labels can considerably affect their food choices and make them better able to self-regulate and improve their food choices (Trudel & Murray, 2011, 2013).

According to a meta-analysis by Cadario & Chandon (2018), Interventions are more influencing at decreasing unhealthy consumption as compared to enhancing healthy consumption or plummeting the total consumption. Moreover, the effect of the intervention is similar for both the food section and consumption.

Nutritional label experts suggest that the availability of nutritional labels on products and the menus at a restaurant can regulate the eating behavior of consumers by providing appropriate information for making better food decisions and being conscious about its costs (Bettman, Luce, & Payne, 1998; Häubl & Trifts, 2000; Simon, 1955). Moreover, the slight changes in the information transferred to consumers can have a substantial effect on making consumers conscious of making better food choices (Thaler & Sunstein, 2008; Thorndike, Sonnenberg, Riis, Barraclough, & Levy, 2012).

According to Van Herpen & Van Trijp, (2011), information can be used inside the supermarket or the store to make consumer health goals more prominent, at the point of purchase (i.e., a campaign to minimize the use of salt) can increase healthy choices.

The information about the healthiness of the product is often communicated by the nutritional labels which will go unattended otherwise. Moreover, consumer attention towards nutritional labels also depends upon their goals. Consumers having health goals or for whom dietary guideline is of significance, will pay more attention to Nutritional labels (Drichoutis, Lazaridis, & Nayga Jr, 2006; Nayga Jr, Lipinski, & Savur, 1998). According to Van Herpen & Van Trijp(2011) consumers having either general health goals (healthiness) or those consumers having nutrient-related health goals(eat less sugar or salt) were more attentive towards nutritional labels. Moreover, consumers considered the nutritional table to be most preferred, easy and useful compared to a logo or Traffic light mechanism. Similarly, once consumers' health goal is activated, they also focus more on the national labels compared to those whose health goals are not active (Visschers, Hess, & Siegrist, 2010).

Simple calorie labels are not successful at times, probably because of extensive restrictions in numeracy, various individuals are not able to comprehend the numbers and are affected by the mood and emotions(Temple et al., 2011) and according to eye-tracking studies, images receive more individual attention than numbers (Stutts, Zank, Smith, & Williams, 2011)

Usually, the front of pack nutritional labels only provides information per serving, in the form of calories per 30g or sugar per serving. However, we believe this creates confusion in the mind of consumers as they mix per serving information with the whole pack. Hence, we made slight changes to the front of pack nutritional labels, considering the effectiveness of using images in nutritional labeling and also the difficulties that consumers face while processing and interpreting the numerical calorie related information. We modified the nutritional label by including a pie chart mentioning the limit of a specific factor such as sugar or fat that consumers can consume per day with the % covered by the consumption of the whole product at hand. According to (Cornil & Chandon, 2016) nutritional labels that provided information related to calories and fat made participants choose the smaller portions of food compared to control conditions, especially when the participants were hungry.

Although we have hypothesized that nonlinear pricing, at its own, can lessen the importance of health goals, but we now propose that, if the health goals become prominent, nonlinear pricing effects can be weakened. Research suggests that external influences can make one goal more striking than another, which will consequently result in more efforts for the attainment of the focal goal(Shah et al., 2002). Hence, we pursue to identify whether the

nutritional label will decrease the effect of nonlinear pricing by placing greater importance to the attainment of prominent health goals an attenuating the aptitude to justify the further indulgent choice(Okada, 2005; Sela et al., 2008).

Following H2, nonlinear pricing attenuates the importance that consumers assign to their health goal; hence, the consumers may sense licensed to follow their value goal at the cost of health (Fishbach & Dhar, 2005). Nevertheless, in situations where health is prominent, the consumers may pursue their health goals even in the existence of an otherwise prominent value-based financial goal rising through nonlinear pricing. Because it's the goal priming which has the tendency to make one goal more salient than other(Shah et al., 2002) and when a general health goal is salient, healthy choices are heightened compared to a condition where consumers select as per their preference (Van Herpen & Van Trijp, 2011).

Means-End theory supports this notion, as consumers have goal-oriented behavior, and hence the information about the product attributes and consequences associated with those attributes is organized in memory following goals that determine experience(Huffman & Houston, 1993). Though people most often have no prior knowledge about all the product attributes, their focus can be on their goals by selecting a particular product or a service and therefore, acquire goal-oriented knowledge.

In the prior hypothesis we mentioned that when pricing attribute will be made salient, consumers will feel more concerned about the value-oriented consequence of their purchase decision, but when the nutritional label becomes the more prominent attribute of the product consumers will encounter a trade-off between their health and value goals.

In this dissertation, we study the moderating role of nutritional labels on the effect of supersized pricing on size choice. In the presence of a nutritional label, supersized pricing should have less impact on size choice as the national label averts consumers from reducing the importance of health. That is, the health goal importance will not decline in the presence of a nutritional label even if supersized pricing is practiced, thus weakening the influence of supersized pricing. If the consumers do not attenuate the importance placed on health, then the value-based justification will be less significant for a larger size choice.

Therefore, we propose that nutritional labels will moderate the effect of price on size choice such that the impact of supersized pricing on size choice will decrease in the presence of the nutritional label. As such, we forestall the mediating influences of health importance and value-based justification offered in H2 and H3 will only appear when there is no nutritional label since the existence of the nutritional label will lessen the effect of the pricing structure.

H4: A nutritional label moderates the impact of supersized pricing on the size choice

# 2.3.4. Consumption quantity

According to Botschen, Thelen, & Pieters (1999), product attributes do not describe the reasons behind the purchase of a product or service. The primary assumption that is linked to the means-end theory is that the consumers do not make buying decisions just for the sake of products, but for the benefits, they gain from the consumption of those products. Hence when consumers decide to opt for the upsized food, they take into consideration the benefits or consequences that are obtained from the consumption of larger pack in the form of satiation or not to feel hungry any more, These consequences which consumers consider to be the positive ones actually are the negative consequences as the pricing and package size attribute of the product result in overconsumption. Moreover, Previous research directs that the purchase of larger sizes results in over-consumption (Wansink, 1996). Hence, we hypothesize that consumers who purchase a more significant sized product will consume more. If nonlinear pricing enhances the size choice, per previous research (Dolan, 1987; Gu & Yang, 2010) and does so for immediately consumed goods by lessening the significance devoted to health, then the consumers who are uncovered to nonlinear pricing should enhance their quantity of consumption compared to linear pricing condition. This effect is of importance given the deficiency of portion control is a chief cause of the obesity epidemic (Flegal et al., 2010). This typically represents the Means-End chain where product attribute such as price lead to the apparently desired and positive consequences for consumers in the form more quantity to consume, and these consequence leads to the desired end state for consumers in the form of pleasure and satisfaction, but at the cost of health.

H5: Supersized pricing is positively related to consumption quantity

Nevertheless, as we assume the nutritional label diminish the influence of nonlinear pricing on size choice, we also believe that nutritional label will reduce the impact of supersized pricing on the quantity consumed. Participants will consume less food in the presence of a nutritional label whereas they will consume more quantity of food when there will be no nutritional label. Therefore, we propose the following:

H6: Nutritional label moderates the effect of supersized pricing on Consumption Quantity.

# 2.3.5. Product Type and Nutritional claims

Finally, we take into consideration the role played by Product Type. Though we face certain restrictions while categorizing food as unhealthy vs. healthy, especially because healthiness being treated as a continuum than a dichotomy, although there is plenty of literature available about the impact of nutritional labels on health-related beliefs and purchase intentions(e.g., Moorman, Diehl, Brinberg, & Kidwell, 2004), the concern remains, how the relative claim such as low-fat influence the quantity we consume in an immediate context (Wansink & Chandon, 2006b). Consumers also show more positive attitude towards products having health claims and are more willing to purchase such food products, regardless of their actual healthiness, which results in an increased quantity of unhealthy foods (Talati et al. 2016).

According to Hedley et al., (2004), calorie-rich and nutrient-deficient foods that are labeled as low fat make consumers eat 65% more food in the US, especially in the case of overweight people. Various studies support the notion that consumer emotions, specifically anticipation of guilt play an essential role in determining the quantity of food a person chooses or consumes (Baumeister, 2002; Dhar & Simonson, 1999; Shiv & Fedorikhin, 1999; Wertenbroch, 1998b). According to King, Herman, & Polivy (1987), people spontaneously categorize food in terms of pleasure or guilt eliciting emotions.

Many studies have investigated the role played by emotions in decisions related to food consumption (Andrade, 2005; Shiv & Fedorikhin, 1999) as food-related guilt is widespread emotion among US consumers; however studies focused on the role of guilt in Europe, or Japan are scarce (Rozin, Fischler, Imada, Sarubin, & Wrzesniewski, 1999).

Consumers often experience a conflict between their hedonic goal of short-term pleasure compared to the utilitarian goal of long-term health and hence guilt related feelings ascend. According to (Kivetz & Keinan, 2006), consumers experience more guilt related feelings while choosing hedonic products compared to utilitarian products. Besides, Wertenbroch, (1998a) states that food labels also influence our perception of taste. For instance, consumers think that potato chips having a "Twenty Five % Fat" label are tastier than the chips labeled as "Seventy-Five % Lean" (to lessen fat perception). It means that consumers rank high-fat products as more hedonic than low-fat products. Hence it will be logical to say that products having nutritional claims such as "low fat" or "low sugar" should lead consumers to choose the larger size and eat more as it reduces a consumer's feeling of guilt while allowing them to enjoy their food. This logic is also backed by scholarships that illustrate that anticipated consumption guilt nudges consumers to opt lower-fat foods. For instance, (Okada, 2005) found that people consuming at a restaurant were more interested in ordering "Cheesecake de Lite," a low-fat dessert, than "Bailey's Irish Cream Cheesecake," a high-fat dessert, when they saw them together on a menu compared to when they saw them separately. She characterizes these outcomes to the idea that when consumers saw both options sideways, their guilt augmented.

Means-end theory suggests that consumers tend to look at the product and its attributes as a means to an end which includes a connection between attributes, consequences, and values/goals. Therefore, consumers make their buying decisions keeping in view their understanding of the outcomes resulting from their choice. Moreover, the consumers prefer to experience the positive consequences which are personally relevant to them and try to avoid the negative ones. Hence the low-fat claim and pricing attribute of the product, make consumers believe that they are in accordance with their health goal as the consequences resulting from the choice of low-fat products are positive and hence they can lead to their desired end state of better health.

Building on this phenomenon, we suggest that the less hedonic foods or foods having nutritional claims such as low fat or diet are perceived to be healthy and therefore, consumers do not have a trade-off between financial and health goals, as consumption quantity is not given much attention for low fat labeled foods(Redden & Haws, 2012; Wansink & Chandon, 2006b).

Hence consumers increase their size choice as they consider that they are following their health goal, although the desire for consuming more is expected to be less compared to more hedonic foods without nutritional claim. Consequently, for healthy perceived foods (having low fat or nutritional diet claim), consumers can choose a large size without reducing their health importance.

Based on this notion, it is logical to say that price condition influence size choice by prompting the financial goal for less hedonic (low fat) food, and consumers perceive that the monetary value goal that is triggered by nonlinear pricing is in accordance with their health goal. When the pricing for healthy foods is nonlinear, consumers must capitalize on value by augmenting their size choice. The value-based justification demonstrates this mechanism, and it must occur even in the presence of health prime, as consumers do not need to reduce the health importance to enhance the size choice of healthy food to gain value. Principally, for healthy perceived food (vs. unhealthy), health importance may not mediate the influence of pricing on size choice without health prime, however, it will, in case of the health prime, but mediation effect will be observed for value-based justification. It can be stated that the influence of health prime goal prime or health cue on the relationship between supersized pricing and size choice will be affected by the presence of two different product types. Such that health goal prime will not influence the relationship between supersized pricing and size choice when the product type is less hedonic (perceived as healthy). However, it will diminish the impact of supersizing in case of more hedonic products. Hence, we hypothesis that:

H7: A three-way interaction exists between supersized pricing, type of product, and health goal prime.

### 2.3.6. Supersized pricing and Anticipated Consumption Guilt

Preceding research shows three ways which can help consumers alleviate the guilt related to hedonic purchases: (1) Altruistic behaviors(U. Khan & Dhar, 2006; Strahilevitz & Myers, 1998), (2) Increased effort(Kivetz & Simonson, 2002; Kivetz & Zheng, 2006), and (3) search for deals(U. Khan & Dhar, 2010; Zheng & Kivetz, 2009) (e.g., sales promotions).

Altruistic actions can offset the guilt linked with self-centric consumption and aid as the justification for the purchase of hedonic products. U. Khan & Dhar (2006), demonstrated that when people were asked to imagine performing an altruistic behavior before purchase, then they are most likely to choose luxurious options compared to a necessity; this happens because consumers feel a moral compulsion to make such choice. Moreover, Lee-Wingate & Corfman (2010) discovered that involving in a kind behavior (i.e., giving a promotional product to a friend), could also lessen the guilt associated with hedonic products.

Another way for overriding the guilt and justifying the consumption of hedonic products is through increased effort. For instance, engaging in a hard task, earn consumers the license to involve in hedonic consumption as a recompense for their hard work. (Kivetz & Zheng, 2006) found that more effort and (false) positive response augment the fondness for vice versus virtue prizes because consumers feel eligible to them. Similarly, (Kivetz & Simonson, 2002) investigated that when consumers were asked to choose between a luxury and a necessity in a frequency program, they were more inclined towards the luxury than necessity rewards due to the high program requirement for the former compared to low requirements for the later. The literature suggests that when consumers put more efforts into getting a hedonic option, the guilt allied with the consumption of hedonic products decreases.

Lastly, getting deals is also a useful way of diminishing guilt and enhancing hedonic consumption. A consumer might justify their desired but needless purchase of a product by saying that they made a partial payment. Supporting this notion, (Zheng & Kivetz, 2009) exhibited that sales promotions boost the purchase probability of hedonic products but with a modest impact on utilitarian products. (U. Khan & Dhar, 2010) found that a bundle discount improved the purchase possibility if the discount seemed to characterize savings on the hedonic product compared to the utilitarian product in case of cross-category bundles.

Similarly, (Choi et al., 2014) explored that the odd ending pricing also provides justification for the purchase of hedonic products which reduces the associated anticipated guilt and enhances the likelihood of purchase and consumption. In all these instances, consumers did not feel guilty because of the justification they had. As stated earlier, the Means-End theory assumes that product attributes have meaning and value for consumers mainly in terms of the consequences they are perceived to bring about. Some prominent consequences are more direct and tangible and happen immediately as soon as the decision is made or once the product is consumed. The supersized pricing works as a prominent attribute in consumers' decision making, and once consumers decide to opt for their desired alternative, they anticipate to experience positive psychological consequences in the form of better value and saving; hence the negative emotions such as anticipation of consumption guilt is diminished which leads to their desired end state or value in the form of pleasure and satisfaction from consumption.

Building on the previous research, we propose that supersize pricing will reduce the anticipation of guilt associated with the purchase of hedonic products compared to the linear pricing and this decrease in the anticipation of consumption guilt results in larger size choice. It happens because supersized pricing provides a value-based justification for the consumption of the hedonic product which mediates the relationship between pricing and consumption guilt. Moreover, we believe that the mediation will only occur in case of more hedonic products (Lays Nature) but not in case of less hedonic products (Lays Light). Hence, we propose that:

H8: Anticipated consumption guilt mediates the positive relationship between supersized pricing and size choice.

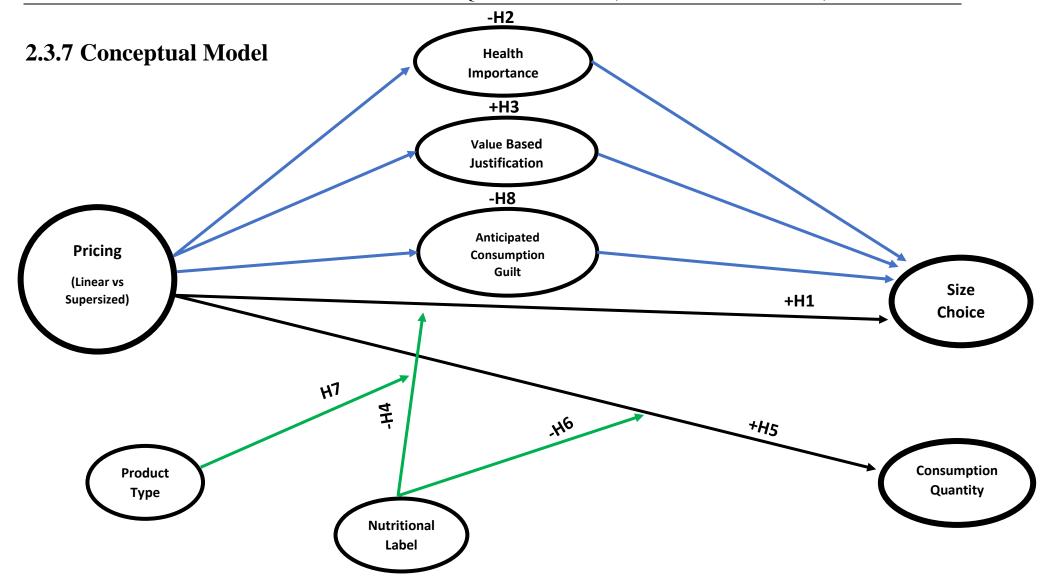


Figure: 07- Conceptual Model for the Quantitative Study

148

This is the conceptual model of our quantitative study, which explains all our hypotheses clearly. Pricing condition(PC) is our independent (Predictor) variable whereas size choice (SC) and consumption quantity(CQ) are our dependent (Outcome) variables. The black arrow between these two variables explains that there is a direct relationship between pricing, size choice, and consumption quantity. Moreover, Health importance (HI), Value-based Justification(VBJ), and Anticipated Consumption Guilt (ACG) are our mediators. The blue arrow shows the indirect relationship between pricing and size choice through Health goal, Value goal and consumption guilt. It explains that consumers' decision mechanism to choose among the various size options in linear vs supersized pricing condition is further described through their food consumption goals, i.e. whether consumers want to achieve their health goal or value goal will eventually explain consumers' choice of package size.

Moreover, the degree of guilt associated with the consumption of hedonic food products will explain consumers' decision to opt for the smaller vs the large-sized options. Overall consumers size choice decision will be influenced by the impact of supersized pricing in increasing or decreasing consumers' preference for either the health goal or value goal. As those consumers whose health goal do not diminish in the presence of supersized pricing will opt for the upsized options compared to those whose value goal is made more salient due to the supersized pricing. Similarly, consumption guilt also provides an alternative explanation for the same phenomenon where supersized pricing reduces the guilt associated with the consumption of hedonic products, as supersized pricing mitigates the associated guilt through justification, resulting in enhanced size choice.

The other two variables Health cue/Nutritional labelling condition(NLC) and Product type (PT) are our moderators and their moderating influence on size choice, consumption quantity and consumption guilt are represented through green arrows along with the two way and three-way interaction between pricing, product type, and health cue. It further explains the mechanism as supersized pricing tends to enhance the size choice of consumers which eventually leads to more consumption quantity. Therefore, following an approach to transform consumers' behavior towards moderate consumption quantity, we have introduced our moderators (health cue/NLC and product type). The use of health cues in the form of conscious and nonconscious goal primes tends to influence consumers' size choice decisions

to reduce consumption quantity for the well-being of consumers. Moreover, product type also can moderate the impact of pricing on size choice as consumers are free to choose larger size of food options which are healthy such as fruits or water. However, use of foods that are perceived as healthy such low fat and low sugar can also enhance size choice of consumers through decrease consumption guilt.

#### SUMMARY FOR CHAPTER IV

This chapter presented the exploratory qualitative study and developed the conceptual model and research hypotheses of the present thesis. We provided at first the detail of the qualitative approach used for initial explorative research, and the method opted to capture the emerging themes from the triangulation technique. The analysis results indicate that pricing, quantity, hunger, liking, social influence, sharing, social status and leisure time are some of the most significant reasons behind the purchase of larger sizes in the immediate consumption context. Moreover, our results also suggest that consumers' decision to opt for the supersized pack is influenced by their financial and health goals along with the consumption related guilt resulting from the cost, overconsumption and food waste. The qualitative phase of this research aspired to shed light on the essence of the consumer decision-making process in the context of supersized foods.

Based on a literature review on food consumption decisions, goals, nonlinear pricing and packaging along with exploratory qualitative study in supersized food consumption decisions, the second section of this chapter constructed the research hypotheses and conceptual model. The theoretical research model explains the mechanism behind the choice of supersized option among the other available food size choices. The conceptual model reveals that supersized pricing increases the possibility to choose the larger size through decreased health importance and enhanced value-based justification. Both Health Importance and Value-based Justification are proposed as mediators. Moreover, the conceptual model also explains the impact of supersized pricing on size choice through decreased anticipated consumption guilt (Mediator) as an alternative explanation for the mechanism at hand. Health cue is proposed as a moderator in the model to overcome the issues related to overconsumption, both conscious (nutritional labels) and non-conscious goal primes are used to enhance health salience; and this moderating influence of health cue on the impact of supersized pricing on size choice is further moderated by the product type (perceived as unhealthy vs healthy).

PART 2.
EMPIRICAL ANALYSIS & RESULTS

#### PART II: EMPERICAL ANALYSIS AND RESULTS



#### **CHAPTER V:**

Research Methodology and use of Statistical Tools

#### **CHAPTER VI:**

Research Methods, Analysis of all Studies and Discussion of Results

Figure 08: Structure of the thesis- Part II

### CHAPTER V: RESEARCH METHODOLOGY AND USE OF STATISTICAL TOOLS

#### INTRODUCTION FOR CHAPTER V

All scientific work requires using a method and a research methodology. The methodology is defined as the study of the proper use of methods and techniques available to the researcher (Gauthier, 1992). The methodology specifies how it is proposed to organize the research and the research techniques used to achieve the research objectives. The choice of research method influences how the researchers collect the data.

This chapter is divided into two sections. The first section of this chapter will present the research posture and epistemology, along with various principles of experimental research and the concept of causality.

The second part of this chapter will discuss the use type and use of instruments along with preliminary analysis of the data, such as cleaning the data via missing values and identifying the outliers. Moreover, it will also introduce various statistical tools used in this study for the analysis of data.

#### Section 1: Research Methodology

#### 1.1. RESEARCH POSTURE

The first objective of this research is to explore the phenomenon of consumers' decision-making process behind the purchase of supersized food products. The second objective of the study is to describe the effects of marketing actions such as supersized pricing on consumer behavior in the form of choices that consumers make in the process. For describing these effects, this research also aims at adapting scales to measure the impacts and benefits of different actions for consumers.

Our objectives are mainly exploration and then the description of connections between different variables and the explanation of a phenomenon. We have adopted an inductive-deductive research premise to complete these goals.

We will discuss more as we go through the text. Before that it's essential to shed some light on the scientific philosophy in general.

#### 1.1.1. Scientific Philosophy

Epistemology is known as the study of the foundation (Piaget 1967, p.6), and every scholar must have an epistemological position. That's why, as per Evrard et al. (2009), every study adopts a research focus in both the qualitative and quantitative studies. Quantitative and qualitative approached derive from two distinct backgrounds of scientific philosophy. The primary distinction between quantitative and qualitative approaches lies in the problem of epistemology as well as ontology (Guba, 1987).

#### **Quantitative Paradigm**

The approach of quantitative study roots back to positivism, which on the other hand dates back to realism and is founded on the notion of God's view or a separately existing reality which can be explained as it actually is. The ontological stake of the numeric of the quantitative paradigm states that objective reality happens independent of human thinking (Sale et al., 2002). It also weighs upon that ultimate truth occurs, and there is merely one truth. As positivism is of the view that concepts have objective reality, quantitative epistemology states that the investigated and the investigator are not dependent on each other and, therefore a phenomena can be studied by investigator without being influenced by it or influencing it (Denzin and Lincoln, 1994: Deshpande, 1983; Sale et al., 2002).

Therefore such an epistemological approach was termed as the Dualist or Objectivist, due to this segregation (Smith, 1983). It has also been postulated by quantitative positivist epistemology that people can separate facts from the values. That is why investigators have the chance to acquire truth to the level that their work resembles the reality of things. As a result, the fact is regarded as a matter of validity by dualist perspective and sees validity as the link between the information and the separately existing reality the information shows (Guba & Lincoln, 1994). Numerous strategies are applied to make sure that biases and values are stopped from impacting results, to eradicate the coercions to validity. The findings of the research are seen as valid until the suggested procedures are intently followed. Therefore, the objective reality phenomena can be investigated in place of generalizable causal effects that help in prediction (Guba and Lincoln, 1994). As a consequence, the purpose of scientific study would be to calculate and research the causal relationships between phenomena within a value-free model with a target of generalization (Denzin and Lincoln, 1884). We can describe quantitative methodology as the manipulative or experimental where the hypotheses and questions have already been proposed, after that tested and confirmed while making sure the impenetrable conditions are there to prevent results from being improperly impacted (Guba and Lincoln, 1994).

#### **Qualitative Paradigm**

This approach roots from interpretivism. For Ontology, interpretivism considers that the reality is constructed by society, holistic, lively, multiple, and circumstantial (Hudson & Ozanne 1988). Interpretivist scholars do not look for a single truth or a single version of authenticity because reality is thought to be multiple. Consequently, accepting the background is vital to interpretivist scholars it is "because social beings create reality and make it meaningful in a said context" (Ozanne and Hudson 1988, 510).

Additionally, people consider social beings are proactive and voluntarist, in the way that they "actively produce and network to form their atmosphere" (Hudson & Ozzane 1988, 510). From the Axiological viewpoint, interpretivist scholars look for understanding founded on comprehending Verstehen, which links to "understanding the common meanings in a culture of context, arts, language, rituals, gestures, roles and on and on" (wax, 1967). Epistemologically, the awareness consequential from interpretivism is supposed to be idiographic, contextually bound, and time-dependent (Hudson & Ozanne 1988, 511). We cannot fully differentiate the causes and effects and are responsible for simultaneously and mutually creating each other (Lincoln and Guba 1985: Rubinstein 1981). Lastly, the scholar is not an unbiased and sovereign spectator. Conversely, the relationship between the investigator and contestants is cooperative and interactive (Hhudson and Ozanne 1988, 512). Ontological, Axiological and Epistemological expectations are inseparably linked with models and study approaches (Hudson & Ozanne 1988).

Interpretivism is the unconventional mode of looking for information, paralleled to the positivistic method according to positivism's idea the investigator reflects there occurs an impartial reality that is external to the investigation procedure itself while interpretivists reason elsewhere. The chief objective of the investigation was to discover the occurrence that is why our epistemological point had been interpretivist in its form. Therefore, interpretivism's expectations and aims directed my picks from the viewpoint of science & approach. Mainly, interpretivism is well functioned by an evolving and elastic study plan, which becomes accustomed to realism as it changes, and a realistic review in the actual realm. Furthermore, data gathering practices and understandings are established with the help of study's contributors. Therefore, we are to monitor a qualitative method to the gathering of data that garbs the interpretive archetype and the purposes of the view. Qualitative methods are certainly more suitable when concentrating "on the experimental and

sociocultural scopes of intake which are generally not reachable over experimentations, examinations, or databank modeling (Sherry in 1991). For this dissertation, we have followed an inductive-deductive approach, as described below.

#### 1.1.2. Inductive or Deductive approach

Every study, to some extent, uses an inductive or deductive approach. As figure 09, explains the inductive process constitutes an essential basis of the research process, especially when the research area is new. With the inductive method, the researcher starts from limited observations, from which the researcher can infer hypotheses and theories. Hence, in case of a new issue, the researcher opts for an exploratory phase. The inductive approach is often an initial step to help formalize the hypotheses in the context of a process that will then be deductive. The deductive process is based on the acquired knowledge of the theories, concepts to make hypothesis that will then be tested empirically. The deductive approach is defined as "starting from acquired knowledge, theory, and concepts, to produce hypotheses that are then tested in front of facts" (Evrard, Pras, and Roux, 2009).

When it comes to choosing between an Inductive or deductive approach, some studies use both of them. To simplify, we can say that the choice of the method depends on the state of advancement of the theoretical knowledge and the concepts related to the problem that is studied, and primarily it also depends on the type of research objective one wishes to attain.

#### **Types of Objective and Research Process**

When the objective is to explore (understand) the phenomenon, an inductive approach is used since it starts with observations to arrive at a better overall understanding of the event. In the case where one seeks to describe, one will be attached to an inductive or deductive approach according to the use that one will be made of it. We can start from the data to reduce it, employing principal component analysis and better "describe" the relations between variables; the research will then be part of an inductive perspective.

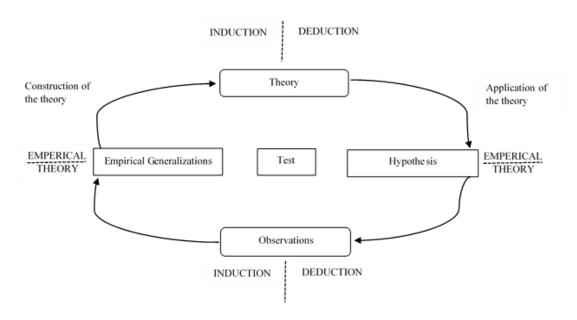


Figure 09: Inductive-Deductive Approach (adapted from Evrard, Pras, Roux, Desmet, Dussaix, & Lilien (2009)

We can also start from theories and concepts, and we will define hypotheses; the classification of the data obtained will validate or invalidate the relations expected between variables and will be part of a deductive approach. In the case of explanatory or predictive (verify) research, we usually use a deductive approach as well as a matter of decision support systems (mastering) in that they integrate predictive research.

#### **Induction or Deduction: A false problem for studies**

The notions of induction or deduction are essential in research; Theoretical aspects and the generation of hypotheses are rarer in the studies. Even if we find them in some of them, like, for example, those relating to taste tests. We start from the problem of decision, we turn it into a problem and objective of the research, and we plan the study to try to answer the question, without having hypotheses beforehand in most cases. It should be noted, however, that we may have hypotheses in studies where we will move directly from an exploratory phase to a hypothesis testing or verification phase (taste tests, advertisements, etc.). Constants are, therefore, the stages of the process initially mentioned, regardless of the approaches, and always present in the studies.

This dissertation adopts both the inductive and deductive approaches to research and implements a qualitative as well as the quantitative methodology to answer the research problem. The first part of the thesis follows the inductive method, as it will be our initial step; and the research on the phenomenon in hand is novel in its sense, which requires us to explore the concept first. At the same time it will also help us to refine and formalize the hypothesis which is derived from the theoretical framework, which will lead us to next (deductive) phase to empirically test the theory through quantitative research in second part of the dissertation.

#### 1.2. CHOICE OF METHOD

There are two commonly used research methods in quantitative research for testing the hypothesis. i.e. correlational research and experimental research. According to Andy Field (2009) under the correlational approach, researchers observe "what naturally goes on in the world without directly interfering with it." Whereas in the case of experimental research one variable is manipulated to check its effect on other variables, in other words, it involves the direct manipulation of variables.

The main factor in deciding the choice of method is to uncover how cause and outcome are related to each other (Andy Field 2009).

In correlation research, we study various variables simultaneously which results in the issue of lack of contiguity among different variables as we cannot identify which variable came first and another problem with correlational research is confounding variables. According to Mill (1965), for eliminating confounding variables, it's essential that both the cause and outcome should appear together, and when the cause is missing the effect should also be missing. In a nutshell, the causality can be inferred by comparing two controlled conditions: One where cause is absent and the other where the cause is present, and this can only be done through experimental methods as it provides the opportunity to compare various situations.

We have used an experimental method to underline the actual cause and effect links between supersized vs. linear price condition and size choice and also the moderating influence of health cue in case of with and without nutritional label and goal prime condition. The experiment implies the manipulation of one or several independent causal variables and the measurement of one or several dependent variables. Furthermore, it is characterized by the use of controls such as randomly assigning participants or experimental units to one or more independent variables (Gavard-Perret et al., 2011).

The choice of between-subject experimental design helped us to identify and measure the impact of supersized pricing on size choice compared to linear pricing conditions which may not have been possible in case of correlational research method. Moreover, the experimental design is also useful to explore the impact of nutritional labels on size choice as we were quickly able to test whether the participants' decision regarding size choice vary when it comes to nutritional label vs no nutritional label condition or in case of Product Type which possesses no health claim vs the one with a low-fat health claim.

In the next section, we will discuss more the principles related to experimental approach which are necessary to follow while using the experimental technique in research.

# 1.3. PRINCIPLES OF THE EXPERIMENTAL APPROACH

All the researchers who conduct research, their work is often based on epistemological positioning (Evrard et al., 2009). The latter translates the meaning of doing research (Mani, 2012). In Management Sciences, there are three main paradigms: positivism, constructivism, and interpretivism (see Evrard et al., 2009: 58). Our research is also part of the positivist paradigm that is based on a goal of discovering reality. We, therefore, adopt an external and objective position towards our object of research. Furthermore, we believe that a hypothesis makes sense only if it is empirically verifiable. Based on this reason we opt for an experimental approach.

As Seltman (2015) points out, much of the scientific breakthrough has been through experimentation. The term "experimentation" comes from the Latin word ex-periri, which means "to test" or "to test" (Freedman, 2009; Khan, 2011). Historically, the experiment has its origin in

Aristotelian philosophy which studies natural phenomena through objective observation of their appearance (Khan, 2011).

Experimentation is defined as a scientific method to test the causality between two or more variables (Evrard et al., 2009; Jolibert and Jourdan, 2006). Unlike the simple questionnaire, where the researcher's intervention is at the level of the interrogation, in the experiment the role of the researcher who intervenes is much more upstream where he has to manipulate the so-called "independent" variable which is supposed to influence the variation of the variable "dependent" (Evrard et al., 2009, Khan, 2011).

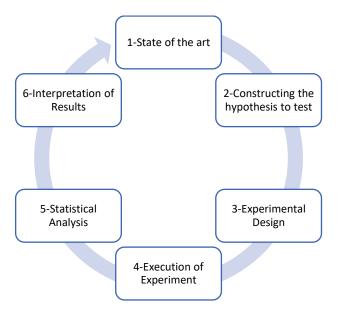


Figure 10: The wheel of scientific knowledge (adapted from Stelman, 2015 p.2)

If we consider scientific knowledge as an iterative process, then the use of experimentation is at the third and fourth stages of the scientific knowledge wheel (Stelman, 2015). As illustrated in Figure, the use of the experimental approach comes after the state-of-the-art steps of the literature and the construction of hypotheses to be tested. Thus, the objective of the experiment is to retranscribe, a reality that is to be discovered under a scientific approach (to lift the cover off the leading behaviors to study the underlying mechanisms). Besides, the testing of hypothesis, based on theories and/or scientific works become possible through experimentation by checking whether they are validated or rejected.

Figure 10 shows that the use of quantitative and conceptual approaches has slowly reduced with the passage of time and hence it's trending towards experimentation. In marketing, and more specifically in consumer behavior, the use of experimentation as an empirical method has become a norm rather than the exception (see, eg Rapp and Hill, 2015). Also, the use of experimentation has continued to flourish, and it has taken an important place in consumer behavior research, many researchers have been using experimentation methodology to publish in good journals (Parguel, Delécolle and Florence, 2015; Borgne, Sirieix and Costa, 2018; Biswas, D., & Szocs, C. (2019). For example, in the Journal of Consumer Research, the use of experimental methods augmented from 33.6% (for the period 1974-1983) to 79.7% (for the period 2004-2013 (see Figure 11). This substantial increase illustrates the growing interest of researchers for the experimental approach that is well organized, more robust, and reproducible.

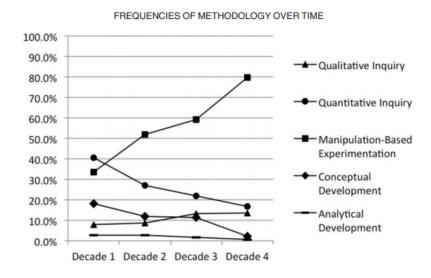


Figure 11: Evolution over time of the use of empirical methods in the JCR (adapted from Rapp and Hill, 2015, pp. 23 and 25)

To understand the experimental approach, it is necessary to study the concept of causality (1.4.). After having specified the causal relationships that the researcher wishes to test, it is needed to focus on the different validities and biases to be reduced while experimenting (1.5.).

#### 1.4. THE CONCEPT OF CAUSALITY

The experimental approach is the most preferred approach for testing causal relationships (Malhotra, 2009) that are inferred in research hypotheses. Causality is a complex concept that assumes that the variation of the dependent variable Y is caused by the prior variation of the independent variable X. The scientific significance conferred on the idea of causality implies three fundamental principles (Malhotra, 2009):

- X is not necessarily the only possible cause of Y.
- -The occurrence of X makes the occurrence of Y more likely (X is probably the cause of Y).
- It is impossible to prove that X is the cause of Y. At best, it is possible to infer that X is the cause of Y.

To rule on a possible causality between a variable X and a variable Y, it is necessary to satisfy in advance the three following conditions (Jolibert and Jolibert, 2006; Malhotra, 2009):

- Ensure a concomitant variation between variable X and variable Y.
- Check a temporal order of the occurrence of the variables. If X is the cause of Y then the occurrence of X must chronologically precede the occurrence of Y. By definition, an event Y can not be the product of an event X if it occurs after the event Y.
- Eliminate the possibility of any competing causes. In other words, for X to be the cause of Y, it is necessary that the relation is always existing in the absence of other possible causes.

In order to ensure these three conditions, the researcher must manipulate (ie create conditions where the variation of X is made by the researcher) the independent variable X, then measure the dependent variable Y and to maintain constant or control any other variables that may have an effect on the dependent variable Y.

In addition to these underlying conditions, the researcher must specify the causal relationships between the different variables to be studied. Thus several causal relationships can exist between one or more variables. These relationships can be direct (1.4.1.), Moderated (1.4.2.) Or mediated (1.4.3.) (See eg Jolibert and Jourdan, 2006, Hayes, 2012). Sometimes the network of relationships

may admit more complex cases such as moderated mediation (1.4.4.) Which is increasingly used in marketing research (see, eg Borau, El Akremi, Elgaaied-Gambier; Hamid-Kidar and Ranchoux, 2015, Edwards and Lambert, 2007, Preacher, Rucker and Hayes, 2007).

### 1.4.1. The direct effect of an independent variable X on a dependent variable Y

When the relationship is simple then the causality implies a direct effect between the independent variable X and the dependent variable Y. Thus, X has a direct effect which can be positive or negative on Y (see: figure 12). Generally, in science and especially in the social sciences, the relationship between X and Y is assumed to exist when the p-value is statistically p <.5% (see eg Cohen, 1992; 98). It means that we have less than a 5% chance of making a mistake by claiming that the effect of X on Y exists when it is not.

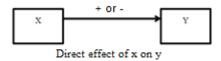


Figure 12: Direct effect of X on Y

#### 1.4.2. Moderating relationship

The direct relation between X and Y can sometimes be moderated by a third variable W called moderator variable (or moderator). The moderator W is a variable which, according to its modalities will reinforce, reduce, cancel or invert the direction of the effect of X on Y (see: figure 13). Note that sometimes the variable W can have a direct impact on the dependent variable Y (dashed arrow).

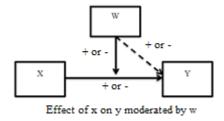


Figure 13: Effect of X on Y moderated by W

165

#### 1.4.3. Mediated relationship

The direct relation between X and Y can sometimes be explained by a third variable M called the mediating variable (or mediator). The mediator is the variable that plays the role of explanatory mechanism of the effect of X on Y. Thus, we say that there is mediation when the effect of X on Y is explained (or mediated) by M (see: figure 14). Mediation can be partial or total. When the mediation is partial then the effect of X on Y is explained by M (path a x b), but the impact of X on Y (c) is also existing (ie p <0.05). When mediation is complete, the effect of X on Y is explained exclusively by M (path a x b), and the direct effect of X on Y (c) is non-existent (ie p><0.05).

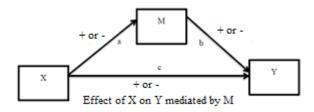
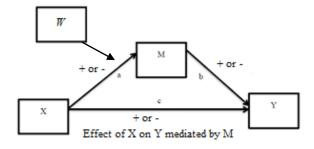


Figure 14: Effect of X on Y mediated by M

#### 1.4.4. Moderated Mediation Relationship

Just as for the direct effect of X on Y, the indirect impact (passing through M) can be influenced by a fourth variable W which moderates the mediating relationship. Thus, according to moderator modalities W, the effect of X on Y mediated by M can be reinforced, diminished, it can also be reversed or canceled (see: figure 15). It is called moderated mediation. Note that the moderator can also have direct effects on M and Y and also moderate the direct effect of X on Y. (see eg the model 07 proposed by Hayes (2012, p 442-456).



166

Figure 15: Effect of X on Y mediated by M

Note that for the different relationships that have just been presented, it is possible to enrich their modeling by integrating several independent variables, dependent as well as several moderators and mediators. Moreover, there are other more complex models that the researcher can consider transcribing a reality to discover (see, eg the 09 models proposed by Hayes (2013).

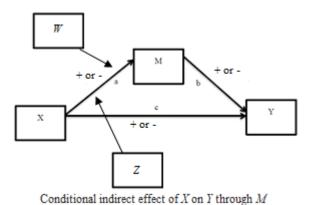


Figure 16: Effect of X on Y mediated by M

After having ascertained the different conditions necessary for causality and after having specified the nature of the causal relations, the researcher must pursue three essential objectives to amplify the validity of the results of his experimentation.

# 1.5. THE DIFFERENT VALIDITIES OF THE EXPERIMENTAL APPROACH AND THE BIASES TO BE MINIMIZED

When experimenting, it is essential to check the general validity of the study (Jolibert and Jourdan, 2006, Malhotra, 2009). Validity is "the best approximation of the truth or falsity of the proposition" (Cook and Campbell 1979, 37 cited by Brewer and Crano 2000, 11). The validity of the experiment can be broken down into two types of validities. The first one makes it possible to verify that the observed effects are attributable to the independent variable previously manipulated (i.e. internal validity, 1.5.1.). The second ensures that the results are generalized to the parent population or to other areas of study (i.e. external validity, 1.5.2.). Moreover, it is important that the researcher can preserve both of these validities by trying to limit a large number of biases (1.5.3.).

#### 1.5.1. Internal validity

It is defined as "the ability to attribute the observed effects to the explanatory variable (s) manipulated by the researcher and not to other external factors" (Jolibert & Jourdan, 2006: 154). Thus, the researcher must verify the success of these experimental manipulations, verify and control the effect of certain confounding variables. It must also control the spurious effects of certain external variables.

For this experiment can be done in the laboratory or the natural environment, it is called "field" experimentation. Laboratory experimentation greatly helps to ensure the internal validity of the study, but it is often considered to be artificial (Jolibert and Jourdan, 2006). On the other hand, "field" or natural experimentation offers a much greater degree of realism but complicates the control of certain undesirable factors.

#### 1.5.2. External validity

In contrast to the internal validity, the external validity concerns the possibility for the researcher to generalize and extrapolate his conceptual model to the general population of the study (Jolibert

and Jourdan, 2006). Hence the importance of working on samples being as representative as possible of the general population. On the other hand, the more valid a model is on different fields of study, the more its explanatory power will be extended (broad) and robust. Thus, the external validity does not exclusively concern the generalization of the results over a larger population than the test sample but is also concerned about the possibility of generalizing the conceptual model to other populations with different cultures or to other categories of products or services.

#### 1.5.3. Biases affecting internal and external validity

The internal and external validity of the experiment can sometimes be jeopardized by certain biases that the researcher must minimize (Campbell and Stanley, 1963, Jolibert and Jourdan, 2006, Malhotra, 2009). Thus one must pay particular attention to 9 potential biases:

- 1) The history effect: this bias is generated by external events that disturb the measurement of variables. It is more pronounced in field experiments than in laboratory experiments. Also, the longer the running time of the experiment, the more likely it is to introduce a history bias. Thus, to minimize it, it is preferable to minimize the running time of the experiment.
- 2) The maturation effect: this bias is introduced when an undesirable change occurs between two measurements and whose source is the passage of time. This effect is most often due to transient states such as fatigue, hunger, or lassitude. To minimize this bias, it is necessary to proceed to the different measurements in the same experimental session as well as to minimize the length of the experiment. It is also possible to measure the effect of maturation (e.g., fatigue, hunger) and introduce it as a covariant.
- 3) The testing effect: when individuals are invited to an experiment, the mere fact of being in a test or questioning situation can cause them to have a parasitic effect due to the experimental process. Thus, the respondent can rationalize his answers because he knows he is participating in a particular study. It is, therefore, necessary to opt for a formulation of questions that reduces this bias. Besides, the measurement process may produce greater sensitivity in the respondent to the subject under study, which may make the answers biased. This bias may affect the external validity as people in real condition will not have this effect produced by the test.

- 4) The instrumentation effect: this is the bias introduced by the measuring instrument that the researcher uses during his experimentation. This bias often stems from a poorly designed questionnaire or mis-asked questions. It is also the result of poorly trained administrators (or experimenters). To minimize this, the quality of the questionnaire must be given high importance, the number of experimenters must be reduced, and appropriate training should be provided to them.
- 5) The statistical regression effect: the appearance of this bias is possible when the measurement of the dependent variable takes place in two distinct times (t and t + 1). Thus, this effect is the result of certain atypical behaviors (extreme values) that take place during the first measurement at a time t and which tend to approach the average behavior during the second measurement in t + 1.
- 6) The selection effect: it is defined as the bias resulting from the way subjects are selected and assigned to the experimental conditions. To avoid any selection effect, each subject should be randomly assigned to an experimental cell.
- 7) The effect of experimental mortality: it is caused by the abandonment of the subject during the experiment. This effect is most salient when the experiment requires several measurements at different times. This bias can be countered by inferring the responses of those who stopped the study using missing value methods. It is also possible to replace the subjects who dropped out of the study by other respondents without changing the characteristics of the sample.
- 8) The effect of contamination occurs when a subject is aware of the objectives of the study or an aspect of it that he should not have known. This bias also occurs when several subjects in the study interact with each other during the experiment. Thus, a subject's responses may be influenced by comments from another subject with whom he or she is having a conversation during the study. It will, therefore, be for the researcher to conceal the object of the study and to reduce or completely avoid any exchange between the subjects of the experiment.
- 9) The interference effect of multiple treatments: when the subject underwent several treatments (or experimental manipulation) in the same experimental session, this can cause undesirable interference to the extent that the effects of the first treatments do not necessarily disappear.

#### 1.6. DATA COLLECTION AND

#### **EXPERIMENTATION IMPLEMENTATION**

When it comes to collect data in an experiment, we can choose from the two available options which are termed as between-group and within-group experimental designs (Andy Field 2009). In Within-group design we collect data from the same participants for both the cases, i.e. when manipulation is present and also when manipulation is absent. This method is also called as within-subject or repeated measure design. The second method is termed as between groups, independent design or between-subject design. Here, the researcher manipulates the independent variable by collecting data from different participants for each condition of the experiment. For all our studies in this thesis we have collected data through between-subject design, where the participants were assigned randomly to each experimental condition to overcome the systematic variation if any. Moreover, between subject designs also helps to overcome practice effects and boredom effects which incur in case of within-subject designs as the same participants are asked to be part of various manipulation conditions.

We have conducted five studies through experimentation. The data was collected from three major Universities of Pakistan (from February 2017 to June 2017) for studies 1-4 and one major the University of France (during January-February 2019) for study 5.

Overall the data was collected from a total of 838 participants through convenience sampling technique as the researcher has ease of access to those Universities to seek permission from the authorities to collect data from the students studying in those Universities. Most of the students were either in master's or in the final year of their Bachelor programs; we choose postgraduate or senior bachelor students as the characteristics of postgraduates are not too different from adults.

There were several reasons for choosing the student sample for this study. Firstly, in our qualitative research, we also observed the characteristics of individuals who are often associated with different package sizes of food. Respondents were asked to associate the different package sizes with different age groups of individuals including a kid, an adult, a middle-aged and an older adult(See table 05). Interestingly, a significant percentage (79%) of respondents associated the largest available package sizes (1500 and 1000ml with 43% and 36% respectively) of coke with an

adult individual and not a single individual associated this group with a smallest available size of coke 230ml, which is considered as a regular drink. It supports the notion that the adult who was in the age of 20 to 25 were often associated with the larger package sizes and overconsumption of food and the students are roughly in this same age group during their final year of bachelor's or their post-grad.

Moreover, Peterson (2001) suggests, student sample is more homogeneous than non-students sample. It is also suggested that a homogeneous sample has a crucial advantage over the non-homogeneous sample (Jager et al., 2017), i.e. it provides clearer generalizability compared non-homogeneous. In addition to that, the homogeneous sample is more normally distributed due to similar characteristics of the sample. It is a more justifiable sample for this research because in our study we intend to measure the impact of supersize pricing on consumers' size choice decisions and students have the habit of eating more hedonic and convenient foods in more quantity.

#### Section 2: Main Statistical Tools for Data Analysis

#### 2.1. PRELIMINARY TREATMENTS

Any data analysis requires initial processing and verification to maximize the validity of the results. Thus, it will be necessary to be attentive to the missing values present in the databases as well as to the respondent not being severe during the experimentation (2.1.1). It will also be necessary to pay particular attention to the atypical values that may influence the estimation of the different parameters (2.2.2).

### 2.1.1. Missing values and non-serious subject during the experiment

During an experiment, some respondents may voluntarily or involuntarily (ex: technical problem) give up and leave the study. Although this is the freedom of everyone to continue or not as a study started, the abandonment of a respondent causes a bias related to the presence of missing values. The presence of missing values is so prevalent in the social sciences that the main statistical software (e.g. SPSS, SAS, Amos, EQS, LISREL, Mplus) has integrated different modules and commands to identify and manage them (Buhi, Goodson and Neilands, 2008).

To manage the presence of missing values, the analyst must first check the character of the missing values. Indeed, they can be of different natures and present themselves as following: (Buhi, Goodson and Neilands, 2008):

- Completely random: the probability that a value is missing does not depend on the variables observed in the study with no missing values or the variables found in the survey with missing values. Values of this nature are not problematic. Thus, in this case, the analyst can manage them using a technique of management of missing values (see Heitjan and Basu, 1996).
- Random: the probability that a value is missing depends on certain variables in the study that do not have missing values. As with the first case, these types of missing values are not problematic and can be corrected by one of the missing value processing techniques (Allison, 2002).

Non-random (or systematic): systematic missing values are those whose probability of occurrence depends on values that are missing or unavailable in the current study. These types of missing values are more problematic and can not be ignored. In this case, the analyst must try to model the mechanism of these missing values and treat these values in their own right. If the analyst anticipates the possibility of systematic missing values, he can add additional measures to his study to increase the probability that his missing values are random (see: Schafer and Graham, 2002).

After specifying the nature of the missing values, three solutions are available to the analyst when they are entirely random or random:

- Delete the respondent (s) with one or more missing values: this technique consists in completely removing (listwise) or partially (pairwise) the respondent with missing values.
- Make a direct estimate: these techniques use all the information available in the data to calculate parameters to estimate the missing values.
- Imputation estimation: imputation techniques suggest replacing missing values with an imputation such as the average of the variable or the group average of respondents similar to the respondent with missing values (e.g. hot-deck method).

These three significant families of techniques all have advantages and disadvantages (for a discussion, see: Buhi, Goodson and Neilands, 2008). The choice of one of the methods depends mainly on the nature of the missing values. In the case of entirely random missing values, suppression or imputation techniques may be the right solution in that they are easy to use and allow unbiased estimation of parameters (Arbuckle, 1996, Buhi, Goodson and Neilands, 2008, Muthén, Kaplan and Hollis, 1987). If the missing values are random then the direct estimation methods are more appropriate.

However, when the missing data are not extensive or concentrated on some respondents, it is possible to eliminate these respondents from the analysis (Evrard et al., 2009: 339). The sample will certainly be reduced, but it will have the advantage of being homogeneous. Also, when a respondent has many missing values, this may reflect a lack of interest in the study (Evrard et al., 2009).

In addition to the problem of missing values, sometimes respondents may lack seriousness during the experiment, which may lead to biased results. This is mainly the case when the respondent does not follow the experimental procedure, responds no matter how different questions or when there is little attention during the experiment. In these three cases, it is possible to remove the respondent from the analysis to increase the explanatory power of the study (Meyvis and Van Osselaer, 2017).

#### 2.1.2. Extreme and outlier values

Sometimes some participant responses may be very different from most other respondents' answers (Field, 2009). These values can be a source of contamination and distort the results obtained from the raw data (Planchon, 2005). Thus, this data can make the state of so-called aberrant or extreme values.

Outliers are defined as "observations that seem to deviate significantly from the other observations of the population from which they come, these observations seem to be inconsistent with the rest of the data, concerning a known model" (Everitt, 2002 cited by Planchon, 2005: 21). These data may be the result of a measurement or execution error (registration error) (Planchon, 2005).

Extreme values are usually represented by the values at the end of the two tails of the distribution (see: Planchon 2005, Barnett and Lewis 1994). Extreme value is not necessarily aberrant, while an outlier is necessarily extreme (Planchon, 2005). What matters is whether the outlier or extreme value may bias the estimation of parameters. Thus, the term outlier is often used to speak of an extreme value that can have a negative influence on the estimation of the parameters. To increase the explanatory power of the study, outliers must be analyzed and processed (Leys, Ley, Bernard and Licata, 2013, Leys, Klein, Dominicy and Ley, 2018, Meyvis and Van Osselaer, 2017; Simmons, Nelson and Simonsohn, 2011).

According to Field (2009: 153) three techniques exist to treat outliers: 1) removal of the outlier, 2) transformation of the data, 3) change the score of the outlier. It is also possible when the extreme value is not too significant to keep this value in the database.

Even if the analyst can choose between one of these three techniques or keep the outlier, there are different cases where deletion is recommended (see, eg Leys, Klein, Dominicy and Ley, 2018; and Van Osselaer, 2017, p.6).

To detect outliers, several techniques exist and depend on the univariate or multivariate character of the outlier. A univariate outlier is an observation that deviates significantly from all observations on a single variable while a multivariate outlier is an observation that varies considerably from the set of observations on a group of variables.

In the case of a univariate outlier, two commonly used methods can detect them. The first is to examine the "box plots" of the variable distribution (Tukey, 1977). All observations that are greater than or less than three times the interquartile range (Q3 - Q1) can be considered extreme values.

The second method is to standardize the variables and examine the z-score values. All observations, whose z-scores are greater than | 3 | can be considered as a univariate outlier (Kline, 2015: 72).

However, the latter method is essentially based on the average, which itself can be influenced by the presence of one or more outliers. Thus, it is possible to opt for a method that is more robust and based on the median. This is the absolute-deviation method around the median (see Leys, Ley, Klein, Bernard and Licata, 2013, Kline, 2015, p.73). This method consists in calculating the MAD (Median Absolute Deviation) value to determine the lower and upper bounds in which the observations must be contained in order not to be considered as a univariate outlier.

In the context of a multivariate outlier, two other methods can be mobilized. The first consists in calculating the Mahalanobis distance (1930) on all the variables where it is desired to detect the multivariate outlier. Any observation that has a Mahalanobis distance greater than 3 x p variables will be considered a multivariate outlier.

Just like the average in the univariate case, the Mahalanobis distance can already be affected by the presence of a multivariate outlier. Thus, it is preferable to favor the MCD (Minimum Covariance Determinant) method that overcomes the biases related to the distance of Mahalanobis (1930) (see: Leys, Klein, Dominicy, Ley, 2018). Nevertheless, this method remains challenging to set up and in particular, when the number of variables increases.

# 2.2. SCALING OPTIONS AND MEASURING INSTRUMENTS

Regarding scaling a psychometric rating scale which is now known as the Likert scale, was introduced by sociologist Rensis Likert (1932) which is used in survey-based and experimental research. Rating scale widely used to obtain information on a range of phenomenon. A Likert scale is a 3- ordered scale from which participants select one option whatever they considered describe their viewpoint, preferences, and degree of agreement. The format of a traditional Likert scale item might range from "strongly disagree to strongly agree" or "Not at all to Very much so." The range of scale could be 5-point, 6-point or 7-point or even more so that the scholars can observe real difference crossways the scale. We preferred 6 point scale over the 5 points or 7 point scale because we did not want respondents to choose neutral responses (Rondeau and Wagar 2003), mostly it happens that consumers prefer to stay neutral so that the actual position may not be revealed for topics related to food, overconsumption and amount spent. Therefore, we choose this forced-choice method by using 6-point scale for all our studies.

To measure the constructs of his research model, the researcher must have a measurement scale. He can opt for a single-item scale (a single question to measure the construct) or multi-items (several items to measure the construct) (Bergkvist and Rossiter, 2008; Bergkvist, 2015, Diamantopoulos, Sarstedt, Fuchs, Wilczynski and Kaiser, 2012). In the case of multi-item scales, different validities should be verified to prove the proper measure of the constructs.

#### 2.2.1. Types of measuring instruments

To be able to apprehend a concept, the researcher can operationalize it in the form of a construct. Thus, the construct can be measured using a so-called "measurement" scale that corresponds to various questions often referred to as "items". However, the construct can be measured by one or more questions. When the construct is measured by a single question, we will speak of a single-

item scale. On the other hand, when the construct is measured by several questions, the scale will be considered as being multi-item. These two types of scales each have advantages and disadvantages (Bergkvist and Rossiter, 2008) that are relevant to the study.

#### 2.2.1.1. Mono-item scale

Mono-item scales are often chosen for practical rather than theoretical reasons. In fact, they mostly reduce the costs associated with data collection and processing (Bergkvist and Rossiter, 2008).

Moreover, when the object of the construct is in the minds of the singular and concrete respondents, and the attribute of the construct is concrete, then a single-item measure is sufficient (Bergkvist and Rossiter, 2008, Rossiter, 2002). Also, including several questions to measure a single construct may seem redundant, repetitive, and tiring the respondent. Sometimes, the respondent may be forced to look for nuance between the different items (often synonymous), which can lead him to think a lot during the various evaluations.

Drolet and Morrisson (2001) also suggest that when the number of items increases, respondents tend to respond in the same way to the different questions asked during the study. Besides, measuring a construct with a single item reduces the risk of introducing additional items that potentially can capture an attribute of another predictor variable (Bergkvist and Rossiter, 2008).

However, the use of a single-item scale does not produce indices of the validity of the measure, such as internal consistency (reliability) or convergent validity. Thus, in the marketing literature, the use of a multi-item scale is the norm (Bearden, Netemeyer, Haws, 2011, Bruner, Hensel and James, 2005, Diamantopoulos et al., 2012, Netemeyer, Bearden and Sharma, 2003, Viswanathan, 2005).

#### 2.2.1.2. Multi-item scale

According to Churchill (1979) and Peter (1979), multi-item scales "would be inherently more reliable" (Bergkvist and Rossiter, 2008: 82). Indeed, they make it possible to produce indices of reliability and internal coherence such as Cronbach's alpha and Jöreskog's Rhô. However, before being able to use this type of index, it is crucial to demonstrate the unidimensionality of the scale

through factorial analyzes. However, multi-item scales can capture more information concerning single-item scales. They also make it possible to better measure so-called "abstract" constructs and to better discriminate the different categories of responses of a construct (Bergkvist and Rossiter, 2008: 82). Thus, in the context of our study, we used both the multi-item as well as mono-item scales as recommended by (Chitturi et al., 2008: 53).

#### 2.2.2. Reliability of measurement scales

It can be verified using the internal consistency and reliability of the measurement scale. Thus, it is possible to use Cronbach's alpha ( $\alpha$ ) to measure internal consistency. Cronbach's alpha is an indicator whose value varies between 0 and 1. The closer the alpha is to 1, the better the internal coherence between the items on the same scale. The standard suggests that Cronbach's alpha should be very close to 0.6 to decide on an acceptable internal consistency (Evrard et al., 2009). However, Cronbach's alpha has some imperfections in that it grows naturally with a number of factors. Thus, it is possible to opt for the Jöreskog Rhô ( $\rho$ ) which measures the internal reliability and makes it possible to correct the imperfections of the Cronbach's alpha (Gerbing and Anderson, 1988). Jöreskog's Rhô is mainly used in the confirmatory phase of the development of a measurement scale and must be greater than 0.7 to decide on acceptable internal reliability.

# 2.3. STATISTICAL TOOLS FOR HYPOTHESIS TESTING

To test his hypotheses, the researcher must provide himself with statistical tools to rule on the acceptance or rejection of the various hypotheses. According to the nature of the variables of the research model (continuous, quasi-continuous, ordinal, nominal), as well as the different causal relationships that one wishes to test (direct, moderation, mediation), the researcher will opt for appropriate tools. As part of our analyzes, we mainly used ANOVA, independent sample t-test, linear, binary, and ordinal logistic regression.

# 2.3.1. ANOVA

Analysis of Variance (ANOVA) is a method that allows studying the influence of one variable or several "nominal" variables on a so-called "continuous" or "quasi-continuous" variable (Evrard et al., 2009). ANOVA is the preferred method for checking whether the experimentally manipulated variable (s) affects the dependent variable being measured. However, to be able to conduct an ANOVA, it is necessary to respect three underlying assumptions namely: the normality or quasi-normality of the data, the equality of the variances and the independence of the observations.

# 2.3.1.1. Normality or quasi-normality of the data

When a statistical method relies on a predetermined distribution, the data should follow or get as close as possible to the shape of that distribution. In most statistical methods used in the Social Sciences, data are assumed to follow a normal distribution. Thus, we speak of normality when the data perfectly follow a normal distribution. Specifically, this means that the data is symmetrically distributed around the center of the distribution (Field, 2013).

Thus, two elements make it possible to verify the normality of the data (Evrard et al., 2009, Field, 2013, Jolibert and Jourdan, 2006):

- The asymmetry coefficient (skewness): it measures the symmetrical distribution of the data around the central value. When the symmetry is perfect, this coefficient is equal to 0. A coefficient greater than 0 indicates left asymmetry(negatively skewed). In other words, the observations are concentrated towards the weakest values. On the other hand, a coefficient less than 0 indicates a right-sided asymmetry(positively skewed) and therefore a higher concentration of observations towards the highest values.

-The flattening coefficient (kurtosis): it allows us to verify the shape of the curve compared to that of a normal law. A coefficient greater than 0 indicates a sharp curve to the top with a concentration of observations. A coefficient less than 0 indicates a more flattened curve and thus more spread observations.

For a distribution to be normal, the asymmetry and flattening coefficients must both be equal to 0. If one of these coefficients has a value higher than or less than 0 then the distribution moves away

from a normal law. In Social Sciences and more particularly in Marketing, distributions very often derive from a normal distribution (Kline, 2015), because human beings are complex and their behavior is not necessarily distributed symmetrically. In fact, it is perfectly acceptable to analyze quasi-normal data. There are several statistical techniques and tests (almost 40) to test the normality of the data (Razali and Wah, 2011). One of the commonly used methods is the verification of asymmetry and flattening coefficients (Kline, 2015). Thus, for the distribution to be considered acceptable in terms of quasi-normality, its asymmetry and flattening coefficients must lie between the intervals [-1.5; 1.5]. Nevertheless, Kline (2015: 76) suggests that the asymmetry coefficient is still acceptable when its value is less than | 3 |. Concerning the flattening coefficient, it is possible to accept a coefficient having a value less than | 8 | (see also Byrne, 2009, p.103 which proposes a value less than 7). Note that ANOVA is not very sensitive to violations of normality except for extreme cases (Jolibert and Jourdan, 2006).

### 2.3.1.2. Equal variances

Variance analysis requires a second condition which is the equality of variances between comparison groups. Thus, the different groups must have more or less equal variance. The Levene test (1960) makes it possible to check the equality of the variances. For this test to be conclusive, one must accept the null hypothesis that there is no significant difference between the variances of the two groups. If this test is significant, it means that the variances are not equal. The violation of the equality of variances becomes problematic when the sizes of the different groups are unequal (Jolibert and Jourdan, 2006, Field, 2013). The analyst can then perform some transformations of the dependent variable to return to a situation where the variances between groups are equal. The major disadvantage of data transformation lies in the interpretation of the results (Jolibert and Jourdan, 2006)

# 2.3.1.3. Independence of observations:

Finally, to conduct an ANOVA, it is necessary that the attribution of respondents in the experimental cells is random.

We made sure to perform all the preliminary analysis in case of all five studies to clean the data to make it useable for final analysis. We took care of all the missing values, outliers, extreme values, redundant responses, etc. Moreover, our data was normally distributed in case of all fives studies.

# 2.3.2. Binary logistic regression

This tool makes it possible to predict variables which are called binary or nominal with two modalities (0 and 1). When the dependent variable has two outcomes (eg the consumer will choose product A or will not choose product A), then it is possible to determine whether certain independent variables (nominal or continuous) will predict the modality that the dependent variable will take (that is, 0 or 1). Although there are few precautions to take to conduct a binary logistic regression (Jolibert and Jourdan, 2006: 494), Field (2013) advocates respecting certain conditions that are mostly linearity and multi-collinearity.

### **2.3.2.1.** Linearity

The linearity assumption in logistic regression assumes a linear relationship between each continuous independent variable and the logit of the dependent variable. To test this hypothesis, it should be verified that the interaction of the independent variable continues with its logarithmic transformation is insignificant. Note that this principle is only valid for continuous independent variables and not for nominal independent variables.

# 2.3.2.2. Multicollinearity

This principle assumes that the explanatory variables must not be too correlated with each other. It is thus necessary to check the value of the tolerance which must be greater than 0.1 and the value of the VIF which must be less than 10.

# 2.3.2. Bootstrap for the mediation test

Since the advanced criticisms of the Baron and Kenny (1986) procedure for mediation effects testing (see Zhao, Lynch, and Chen, 2011, Hayes, 2009), it is recommended that you perform a

Bootstrap procedure and verify the process. Content of the 95% confidence intervals to perform the mediation test.

More precisely, the Bootstrap procedure makes it possible to go beyond the limits linked to the sequential method of Baron and Kenny (1986) as well as to the Sobel test. First, the procedure of Baron and Kenny (1986) requires first establishing a direct effect to mediate before performing the mediation analysis (Zhao et al., 2011). But mediation does not necessarily imply an immediate impact. It should be ensured that the indirect path (, x b) between the two variables is significant.

Second, the use of the Sobel test to test for the significance of the indirect path (axb) can lead to false conclusions in that the confidence intervals of the indirect pathway that it considers are misleading to include the null value (see Zhao et al., 2011; 89) and thus to increase the probability of making a second type (type II) error.

To address this problem, Bootstrap analysis (Pracher and Hayes, 2004, 2008, Zhao et al., 2011) is required to estimate confidence intervals by generating "an empirically sampled distribution of (Zhao et al., 2011, p 89).

The Bootstrap is a re-sampling procedure with data delivery. The principle consists in reconstituting several samples from the initial sample formed by the researcher. Thus, each sample is reconstituted

randomly selecting n observations from the initial sample. After each selection of an observation, the observation is delivered and can be reselected. Iteratively leads to a new sample that can be composed several times of the same observation. This procedure is repeated to form n samples.

In practice, a Bootstrap of 5000 samples is carried out. Based on these 5000 samples, it is thus necessary to estimate the model parameters on each sample in order to estimate the 95% confidence intervals in which the value of the estimated coefficients can fluctuate. To rule on a significant indirect effect, it is necessary to check the absence of the value 0 between the lower bound and the upper bound of the confidence interval of the indirect path (a x b).

To better understand how to rule on the significance of the indirect effect, Table 22 presents four fictitious cases. Two cases where the indirect effect is significant and two cases where the latter is not significant.

The AMOS software allows us to carry out this procedure by also providing a p-value. However, in the case of moderated mediation with the moderator in the form of an interaction term, this software does not give (to our knowledge) an estimate of the indirect effect at different values of the moderator.

To obtain these results, it is possible to use the PROCESS macro from Hayes (2013), which in model 7 estimates the indirect effect and their confidence intervals at different levels of the moderator. This macro also provides the confidence intervals of the moderated mediation index.

# **SUMMARY OF CHAPTER V**

This chapter discussed the epistemological posture of the researcher by introducing the qualitative and quantitative paradigms first, and after that it discussed the choice of the inductive-deductive approach for the dissertation. Moreover, it also brought some light on the methods of data collection and sampling techniques. It further addressed the use of experimental research by introducing various principles, causality and resulting biases, along with their reliability and validity.

The second part of this chapter discussed the various statistical tools for collecting and analyzing the data from cleaning to final analysis with the help of various analytical tools for data collection and hypothesis testing. It introduced multiple scale options and tools used in the analysis of the current study, such as regression, mediation, bootstrapping, and analysis of variance.

# PART II: EMPERICAL ANALYSIS AND RESULTS



# **CHAPTER V:**

Research Methodology and use of Statistical Tools

# **CHAPTER VI:**

Research Methods, Analysis of all Studies and Discussion of Results

# CHAPTER VI: RESEARCH METHODS, ANALYSIS OF ALL STUDIES AND DISCUSSION OF RESULTS

# INTRODUCTION FOR CHAPTER VI

This chapter will cover the methodologies and analysis of all 05 studies that have been used in this study to test our hypothesis, which includes the choice of sample, selection of measurement instruments and the techniques that will be applied for the analysis. Moreover, each study is discussed briefly to build up the need and explanation for the subsequent study.

Moreover, after the analysis of all five studies, we will discuss and outline our results with previous work. We will generally present the results of the overall study and compare and confront them with previous research to place the findings of this study into perspective with the literature.

# 1 - Research Methodology and Analysis of Results

This section discusses the research methods followed for the data collection and analysis of all the studies conducted during this research. The below mention briefly describes each study and its purpose.

### Study 1

Examines the influence of supersized pricing on size choice through decreased health importance.

### Study 2

Examines the moderating role of nutritional label by making health goal salient, considering the diminished health importance and value based financial justification.

### Study 3

Uses a real food consumption and actual purchase to further support our process and demonstrating that nutritional labels reduces the impact of supersized pricing. Moreover, it also illustrates that supersized pricing make consumers eat more, especially in absence of nutritional label.

### Study 4

Examines the influence of supersized pricing on size choice in a delayed consumption context. Moreover, it also tests the mediating roles of Health importance and Value based justification along with the moderating role of Nutritional label for hedonic food options.

### Study 5

This study validates the whole model in a different country context, for more hedonic (perceived as unhealthy) and less hedonic product (perceived as healthy). This allows us to (1) to illustrate the role of supersized pricing as a financial value prime, (2) bring more evidence for value based justification and shift in health importance, and (3) demonstrate that firms can go for supersized pricing strategy to motivate consumers for buying larger sizes of products which are comparatively healthy. (4) to examine the role supersized pricing in reducing anticipated consumption guilt arising from hedonic product choice

# **1.1 STUDY 1**

In this study, we examined the influence of supersized pricing for the products to be consumed immediately using real food options. By doing this, we offer insight into the mechanism behind supersized pricing, investigating the alterations in health importance, as mentioned in Hypothesis 1 and Hypothesis 2.

# 1.1.1. Methodology

### Price condition (PC) (Supersize vs. Linear pricing) and Size choice (SC)

Seventy-six participants were provided with a self-reported questionnaire. The participants were equally divided into supersized and linear price conditions in a classroom setting. They were asked to imagine themselves at a restaurant looking forward to ordering a Milkshake. First of all they were asked to decide about their preferred Milkshake flavor (Chocolate, Strawberry, Vanilla), followed by different prices as per pricing condition for each size. The three milkshake glass sizes were labeled as small, medium, and large having a volume of 250,400 and 500 milliliters respectively.

The supersized pricing condition was denoted as 1, whereas the linear pricing condition was coded as 0. The prices for different milkshake sizes in linear price condition were: Small=Rs.170, Medium=270 and Large= Rs.340. On the other hand, prices in the supersized pricing condition were Rs — 170, Rs.220 and Rs.245 for small, medium and large milkshake glass respectively, as per industry practice. Moreover, The Milkshake glass sizes were coded as 1,2 and 3 for Small, medium and large sizes.

### Health importance (Hi)

Once the respondents mentioned their preferred size choice, they were asked to respond to a series of questions about their purchase decision. The scale of health importance was borrowed from Haws and Winterich (2013) and was adapted according to our study requirements and product type.

The respondents were asked to "indicate how important each of the several product attributes was to their purchase decision" on a 6 point scale: 1= not at all important and 6= very important. These items were included among some filler items in the form of milkshake type and convivence.

As the milkshake flavor and convenience did not vary as per price condition, so we only considered three items (Nutritional properties, calories and health concerns), and created an average health index ( $\alpha = .87$ ).

### Other measures.

All the respondents were also asked to mention their liking for the milkshake in general

(1 = not at all to 6 = very much so) and to choose their preferred flavor of milkshake among vanilla, strawberry, and chocolate.

# **1.1.2.** Results

### Size choice.

We conducted an ordinal logistic regression analysis to test the impact of supersized pricing on size choice. We measured Price condition as Independent variable and Size choice as the dependent variable. Moreover, we also included Milkshake liking and preference for Flavour as Independent variables.

Table 08: Ordinal Logistic Regression Predicting Likelihood of Reporting size choice under supersized vs. linear condition

	В	S.E.	Wald	Df	p
Price condition	.998	0.456	4.488	1	P=.034
Milkshake liking	.121	0.236	0.226	1	P=.634
Milkshake Flavour	107	0.299	0.425	1	P=.514

Our findings suggest that the pricing condition significantly affected size choice (b = .998, Wald = 4.488, p < .05) in favour of H1. Moreover, we also calculated the Odds Ratio to better understand the impact of price on size choice. Our findings suggest that respondents who were part of supersized pricing condition were more than two times likely to buy a larger size of Milkshake compared to those who were in the linear pricing condition (OR =2.71, p < .05). More than 63% of participants chose the medium or large size of milkshake in the supersized pricing condition compared to 39.4% in linear price condition, as shown in Table 07.

Consumers' liking (b=.121, [ns]) and the preference for milkshake flavor (b=-.107, [ns]) did not affect the milkshake size, and both these variables were found to be insignificant, that means, neither liking for the product nor preference for flavour is responsible for increase in size choice decision. Hence, we found enough evidence that it's the pricing condition that solely influenced the size choice decisions of the participants.

### Health importance

For testing hypothesis 2, we examined the mediating role of health importance by using bootstrapping techniques (Preacher & Hayes, 2004). The price condition was measured as an independent variable; size choice was designated as a dependent variable whereas health importance was used as a mediating variable. Moreover, milkshake liking and preference for flavor were also included in the analysis.

Table 09: Mediating role of Health Importance

Dependent	Independent	В	S.E.	p	LLCI	ULCI		
HI	PC	7171	.2281	.0024	-1.1718	2624		
SC	PC	.2056	.1557	.1908	1048	.56161		
SC	HI	1815	.0754	.0187	3319	0311		
Indirect of X on Y at the value of a mediator								
		.1301	.0724		.0259	.3259		

Our analysis found that when health importance was controlled, the total effect of price condition on the size choice decreased (c' = .2056, p > .19). As the indirect effect (which ranged from .0259 to .3259) did not include zero at 95% confidence interval. This outcome is in favor of our hypothesized association (H2) between price and size choice via changing health importance.

To examine the difference between health importance rating of respondents under both supersized and linear pricing condition, we measured the difference between their means via independent sample t-test. We found that health importance attenuated with supersized pricing (F (1, 74) = .005, p < .05;  $M_{linear} = 3.71$  vs.  $M_{supersized} = 3.05$ ; t = 3.02, p < .05). Milkshake liking was found to have no influence on health importance (F(1, 74) = .435, p > .51).

These results support both H1 and H2 in a way that pricing significantly affects the size choice and the supersized pricing results in the purchase of more substantial size by decreasing the importance that consumers assign to their health while making decisions.

# 1.1.3. Discussion

The results show that the consumers choose a larger package size of the immediately consumed products in the existence of supersized pricing contrary to linear pricing. Furthermore, supersized pricing encourages consumers to enhance the size choice by reducing the importance placed on health. It offers us a primary understanding of the fundamental decision-making process in the case of supersized pricing.

# 1.2. STUDY 2

In the previous study we online examined the role of supersized pricing on size choice and also checked for the mediation of health importance. We did not include other variables of the model at once because we wanted to approach the experimental manipulations one by one to see their effects and also to be sure that supersized pricing influences the size choice decisions of consumers by reducing their health importance. However, Study 2 examines the moderating role of Nutritional label as an intervention for the effect of pricing on size choice. Thereby, we reassess the decision-making process via the importance that consumers assign to health as we did in study 1, also with the inclusion of nutritional labels (Cornil & Chandon, 2016; Spencer, Zanna, & Fong, 2005). For further insight into the underlying mechanism, we investigate the impact of health salience and supersized pricing on the value-based justification. Thus, this study investigates H1-H4.

### **Pre-tests for nutritional label**

First of all, we conducted a pre-test to know whether the front of pack nutritional label moderates the impact of supersized pricing on size choice.

We conducted an online pretest among 60 participants based on a between-subject 2 (Linear vs supersized pricing) x 2 design (NLC: Control vs. Yes) to check whether the nutritional label moderates the influence of pricing condition on size choice.

The results of the pre-test suggest that the nutritional label having per serving information about fat and calories did not moderate the influence of supersized pricing on size choice such that the pricing condition (b=1.705, Wald=4.534, p=.033) was significant whereas the NLC (b=-.860, [ns]) and the interaction between Pricing condition and Nutritional label condition(b=.300, [ns]) was not significant. Moreover, the pricing condition was significant regardless of the nutritional label.

According to (Zlatevska et al., 2014) there is always a confusion between the terms portion size, serving size, and package size for consumers. Hence we decided to manipulate the nutritional label by giving information about the whole portion or package size, as one portion may contain more or less than a serving size but as consumers take their decision on heuristics might confuse one serving

with a portion. Therefore, we conducted another pre-test based on per portion or package size information.

A 2x2 between-subject design of an online pre-test study conducted among 60 participants found that the nutritional label based on the information related to the whole pack/portion significantly reduced the effect of Pricing on size choice.

The findings suggest that the interaction between PC x NLC (b=-3.16, p=0.41) was significant. Moreover, the pricing condition was significant in the control condition (b=2.39, p=.006) whereas it was not significant in the presence of Nutritional label (b=-.767, p>.55)

Hence, we decided to use nutritional content labels having information about the whole pack to make it easy for consumers to process and comprehend.

# 1.2.1. Methodology

We recruited 194 respondents to participate in this study. Six of them were deleted as they were unengaged, which was evident from their same response for all single items. Remaining 188 undergraduate students were randomly assigned to one of four conditions in a 2 (price: linear vs. supersized) x 2 (Nutritional label: control vs. Yes) between-subjects design.

Participants in all the conditions were asked to imagine purchasing a soft drink of coca-cola company, which was offered in three flavors and two sizes. Participants first indicated their preferred Flavour, and then they were directed towards the relevant questionnaire where they indicated their desired size choice. This was followed by other measures such as health importance, value-based justification, and manipulation checks.

### Nutritional Label (NLC) to increase Health salience

In the health salience condition (coded as 1) participants saw a nutritional label mentioning the number of calories and sugar content in each bottle size of soft drink while choosing their preferred flavor and bottle size. In the control condition (coded as 0), participants did not see any nutritional label, and they just had to decide their preferred flavor and bottle size.

Price condition.

The participants were equally divided into supersized and linear price conditions, and they were asked to choose their preferred soft drink flavor first, followed by different prices as per pricing condition for each size. The two bottle sizes were labeled as small and large size having a volume of 250 and 500 milliliters respectively.

The supersized pricing condition was denoted as 1, whereas the linear pricing condition was coded as 0. The prices for different bottle sizes in linear price condition were: Small(250ml) =Rs.25, and Large(500ml)= 50.On the other hand prices in the supersized pricing condition were Rs.25 and Rs.40 for 250 and 500 ml bottles respectively as per industry practice.

### Size choice.

There were three different variants of soft drinks (Coke, Sprite, Fanta) in two different sizes. Small and Large, coded as 0 and 1 respectively. After the analysis, we found the choice of the variant to be insignificant as it did not influence the results. Therefore, it will not be part of our further discussion.

### Health importance.

The respondents were asked to "indicate how important each of the several product attributes was to their purchase decision" on a 6-point scale where 1= not at all important and 6= very important. Four items were included such as sugar, calories, health concerns and caffeine. Two of them were deleted to improve the reliability of the scale. Hence two items (sugar and calories) were averaged to create a health index (r = .73\*\*). They were included among filler items such as convenience and flavor of soft drink. The flavor of soft drink and convenience were not significant and did not change by price condition. Hence, they will not be discussed further.

### Value-based justification (VBJ).

We also wanted to measure the degree to which respondents justify their decision of enhancing the purchased quantity through the pricing of the product. The scale for Value-Based Justification was borrowed and adapted from the scale used by Haws and Witerich (2013). Two items measured the value-based justification (r = 0.83\*\*) on a 6-point Likert scale. "Indicate the extent to which the pricing for the small and large bottle gave you an excuse to purchase the larger size" and "Indicate

the extent to which the price difference between two bottle sizes offered encouraged you to purchase a larger size than the size you normally buy?" 1= not at all and 6= very much so.

### Additional measures.

Moreover, participants also indicated the level of thirst, liking, and preference for brand/flavor and attitude towards the product (ATP), which were included as controls.

# **1.2.2. Results**

### Size choice.

Logistic regression was used to measure the impact of pricing condition (IV) on size choice (DV). Moreover, Nutritional labeling condition, its interaction with pricing condition, liking, thirst, Attitude towards Product, and Preferred flavor were also included as the independent variables.

Table 10: Logistic Regression Predicting Likelihood of Reporting size choice under supersized vs. linear pricing condition

							95% C.I.fo	or EXP(B)
	В	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
PC	1.178	.455	6.694	1	.010	3.248	1.331	7.927
NLC	110	.483	.052	1	.820	.896	.348	2.309
PC x NLC	-1.3176	.671	3.851	1	.050	.268	.072	.998
ATP	565	.949	.354	1	.552	.569	.089	3.650
Thirst	014	.129	.012	1	.914	.986	.766	1.269
Brand Preference	.339	.203	2.796	1	.094	1.404	.943	2.090
Liking	.296	.184	2.592	1	.107	1.344	.938	1.926

The full model containing all predictors was statistically significant,  $\chi 2$  (7, N = 188) = 21.288, p < .001, indicating that the model was able to distinguish between respondents who were in linear and supersized pricing conditions. The model as a whole explained between 10.7% (Cox and Snell R

square) and 15% (Nagelkerke R squared) of the variance in size choice, and correctly classified 72 % of cases.

Price condition was significant (b=1.178, Wald = 6.694, p < .05) with an OR=3.248, which suggests that participants in the supersized pricing condition were more than three times likely to choose the larger bottle supporting H1. More than 56% of participants chose the large size of bottle in the supersized pricing condition compared to 26.7% in linear price condition, as shown in Table 07, explaining the influence of supersize pricing on consumers' size choice decision.

Nutritional label condition was not significant (b = -.110, Wald = .052, p >.82) but more importantly, the two-way interaction between Price and Nutritional label condition was significant (b = -1.318, Wald = 3.851, p =.05). This means that nutritional label alone does not predict whether a person will choose the large size or smile size but its interaction with price does. Interestingly, In the control condition (no Nutritional label manipulation), the effect of the price condition was significant (OR = 3.536, p < .01). In contrast, in the Nutritional label condition, there was no effect of price condition (OR = .856, ns) on bottle size selection. Therefore, we can conclude that the presence of a nutritional label is responsible for the enhanced health salience which caused the influence of supersized pricing on size choice to decrease supporting H4. As table 07 demonstrates that the choice of larger bottle size significantly reduced from more than 56% to 21.7% when participants who were in supersized pricing condition were exposed to nutritional label.

Moreover, liking for the product (b = .296[ns]), Brand preference (b = .339[ns]), Attitude towards the product (b= -.565 [ns]) and the level of thirst (b=-.014 [ns]) were not significant. It suggests that supersized pricing is such a substantial influence on consumers' decision related to the choice of package size, that it overrides many other factors which are often considered to be important influencers in our food choice decisions such as whether the consumer likes the product? Any special preference for the brand? Level of thirst or even the attitude that an individual has about the brand.

### Health importance

We examined the mediating role of health importance by using bootstrapping techniques (Preacher & Hayes, 2004). The price condition was measured as an independent variable; size choice was designated as the dependent variable, whereas health importance was used as a mediating variable. Moreover, liking, thirst, attitude towards product and preference for brand or flavor were also included in the analysis.

Table 11: Mediating role of Health Importance

Dependent	Independent	В	S.E.	p	LLCI	ULCI
HI	PC	6072	.1768	.0007	9560	2583
SC	PC	.3712	.3422	.2781	2995	1.0419
SC	HI	4519	.1496	.0025	7451	1586
	Indirect of	X on Y at t	the value of	a mediator		
		.2744	.1309		.0835	.5956

The analysis found that when health importance was controlled, the total effect of price condition on the size choice decreased (c' = .37, p > .27). As the indirect effect (which ranged from .0835 to .5956) did not include zero at 95% confidence interval. This outcome is in favor of our hypothesized association between price and size choice (H2) via changing health importance as mentioned in table 04.

To examine the difference between health importance rating of respondents under both supersized and linear pricing condition, we measured the difference between their means via independent sample t-test. We found that health importance attenuated with supersized pricing (F  $(1, 186) = 6.708, p < .05; M_{linear} = 3.94 \text{ vs.}$  Msupersized =3.34; t = 3.54, p < .01), explaining the notion that supersize pricing reduces the importance that consumers place on their health in order to encourage them for enhancing their size choice.

### The mediating role of Value-based justification

Similar to Health Importance, we also tested the mediating role of value-based justification. We performed a bootstrapping mediation analysis with 5000 iterations for our potential mediator. The price condition was measured as an independent variable; size choice was designated as a dependent variable whereas value-based justification was used as a mediating variable. Moreover, liking, thirst, attitude towards product and preference for brand or flavor were also included in the analysis.

Table 12: Mediating role of Value-based justification

Dependent	Independent	В	S.E.	p	LLCI	ULCI
VBJ	PC	.7901	.1970	.0001	.4014	1.1788
SC	PC	.1921	.3590	.5926	5115	.8957
SC	VBJ	.4966	.1348	.0002	.2323	.7609
Indirect of X of	on Y at the value of	of a mediato	or			
		.3924	.1757		.1339	.7850

Our analysis found that when Value-based justification was controlled, the total effect of price condition on the size choice decreased (c' = .19, p > .59). As the indirect effect (which ranged from (.1339 to .7609) did not include zero at 95% confidence interval. This outcome is in favor of our hypothesizes (H3) explaining the mediating role of value-based justification between pricing and size choice.

To examine the difference between the value-based justification of respondents under both supersized and linear pricing condition, we measured the difference between their means via independent sample t-test. We found that value-based justification increased with supersized pricing (F (1, 186) = 14.89, p < .05;  $M_{linear}$  = 2.78 vs.  $M_{supersized}$  =3.58; t = 4.21, p < .01), supporting the mechanism that consumers decision to upsize their size choice decision is explained through the value based justification which they get in the form of supersize pricing, as it activates the value goal of consumers, resulting in the choice of larger size of bottle among other options.

### The moderating role of NLC

Although supersized pricing plays a significant role in encouraging consumers to opt for the larger package size through value-based justification and decreased health importance. However, we also propose that the influence of pricing condition can be attenuated by using a nutritional label as a health cue.

To test the impact of the nutritional label as a moderator, we measured it through SPSS Process macro with 5000 iterations with NLC as moderator and Pricing condition as IV whereas SC as DV.

Table 13: Moderating role NLC on PC and SC

	В	S.E.	p	LLCI	ULCI
NLC	1098	.4831	.8202	-1.0566	.8369
PC	1.1779	.4553	.0097	.2856	2.0702
Interaction (PC x NLC)	-1.3176	.6714	.0497	-2.6335	0017

Conditional effect of X on Y at values of the moderator (NLC)

0	1.1779	.4453	.0097	.2856	2.0702
1	1397	.5002	.7801	-1.1200	.8407

The interaction between PC and NLC was significant, as mentioned in the table 13. Interestingly, we found that the pricing condition was significant in the absence of Nutritional label (.2856 to 2.0702) whereas it was not significant in the presence of Nutritional label (-1.1200 to .8407) which supports our hypothesis(H4) that nutritional label reduces the impact of supersized pricing on size choice, as presented in table 07.

### **Moderated Mediation**

We also performed the moderated mediation analysis as suggested by (Preacher, Rucker, & Hayes, 2007), to test whether the Nutritional label also moderates the mediating relationship between Pricing and health importance. While performing the moderated mediation analysis, we included

pricing condition as independent variable, Size Choice as Dependent Variable, Nutritional label as moderator, Health importance as mediator along with other additional covariates.

Table 14: Moderated Mediation of HI on SC at NLC

Conditiona	l Indirect effect of	of PC on SC at	the values	of the NLC		
Mediator						
	NLC	Effect	SE	LLCI	ULCI	
HI	0	.0981	.1164	0814	.3867	
НІ	1	.4290	.1583	.1713	.7702	
Index of M	oderated mediati	on				
Mediator						
		Effect	SE	LLCI	ULCI	
HI		.3308	.1593	.0842	.7059	

The results were significant at 95% CI as the index of moderated mediation did not include zero for the mediator health importance (.0842 to .7059). Hence, it can be concluded that moderated mediation does exist in case of health importance, as illustrated in table 7.

Health importance was significant and positive at 95% CI, in the presence of nutritional label (.1713 to .7702), whereas it was not significant in the control condition (-.0814 to .7702).

Even though we did not theorize it to be significant when health is made prominent, but we can say that this has happened because the presence of supersized pricing decreases health salience. As a result, consumers start paying less attention to health importance, but the presence of nutritional label makes the health more salient, resulting in increased health importance (see Figure 17). This

enhanced health importance averts consumers to make their choice based on financial value goal. Following the pattern shown in the Figure 17, we find that HI diminishes in case of supersized pricing until the nutritional label is presented to make health more salient. Such an effect of NLC moderates the mediating role of HI between the impact of price on size choice.

Next, we tested for moderated mediation in case of VBJ. While performing the moderated mediation analysis, we included pricing condition as IV, SC as DV, nutritional label condition as moderator, VBJ as mediator along with two additional covariates.

Table 15: Moderated Mediation of VBJ on SC at NLC

Conditional Indirect effect of PC on SC at the values of the NLC								
Mediator								
	NLC	Effect	SE	LLCI	ULCI			
VBJ	0	.8221	.3025	.3107	1.4341			
VBJ	1	0398	.1127	2714	.1929			

Index of Moderated mediation								
Mediator								
	Effect	SE	LLCI	ULCI				
VBJ	8619	.3258	-1.5272	3218				

We also found that the value-based justification was not significant in the nutritional label condition (95% CI: -.2714 to .1929) whereas it was significant in the control condition when there was no nutritional label (95% CI: .3107 to 1.4341). As shown in Figure 18. These findings suggest that value-based justification was not significant in the presence of a nutritional label as NL made health more salient. Hence, we can conclude that supersized pricing inspires consumers to opt for a larger sized product than normal circumstances by providing them with value-based justification. Nonetheless, this influence is attenuated when consumers start paying more attention to their health.

# 1.2.3. Discussion

Study 2 illustrated that nutritional labels play a significant role in making health more salient in certain situations where nutritional labels are more visible to consumers, and hence affect consumers' responses towards supersized vs. linear pricing. With the help of moderating role played by the nutritional labels in enhancing the consumers' health focus and their responses to supersized vs. linear pricing, we bring more insights to the fundamental decision making of consumers in the context of supersized pricing. Moreover, the specific health importance procedure is also following our proposed theory, illustrating that the consumers' response to supersized pricing is influenced by the shifting health importance in buying decisions, as demonstrated by moderated mediation. Lastly, as theorized, supersized pricing makes the value more salient, as a result, consumers start feeling more justified upsizing their product, mainly when they are not focused on health.

# 1.3. STUDY 3

Studies 1 and 2 focused on the role of supersized pricing in reducing health importance and providing the justification to purchase the larger package size. Study 3 will seek to examine the effectiveness of pricing and Nutritional label intervention in decreasing the package size bought in a real setting and will address additional vital and possible implications of our research: that supersized pricing not only leads to enhanced package size but also the quantity consumed. Moreover, Nutritional label, not only moderate size choice but also consumption quantity. In this study, we also measured the role of health consciousness and price consciousness. It will lead us towards a better understanding of consumers' decision-making process.

### Pre-test for flavor selection

As it was not possible for us to arrange all the available flavors of lays in a University setting, hence a pre-test was performed before the study in a classroom setting where the participants were asked about their most preferred flavor of lays. Out of 25 participants, more than 50% ranked lays Masala as the most favorite flavor whereas more than 30% of participants rated lays cheese as second most preferred flavor, followed by 8% each for lays salted and lays barbeque.

Therefore, we choose lays masala and lays Cheese flavor for our study and made all the necessary stock available by purchasing it from a supermarket and returned the remaining stock after the completion of the study.

# 1.3.1. Methodology

We recruited 138 participants from University; from which 3 participants were dropped from the sample, one was dropped because of not being hungry at all, and he did not consume anything from his chosen pack of lays whereas other two were dropped because of not purchasing the snack. So finally, we had 135 respondents who were randomly assigned to one of four conditions in a 2 (price: supersized vs. linear) x 2 (Nutritional label: yes vs. control) between-subjects design.

Participants were directed to a purportedly separate decision-making study. For this study, they were told that they have Rs.100 in food credit with us, and they were asked to use that credit to buy

snacks for consumption while participating in the study. The reason behind giving 100-rupee credit is to make this study more realistic and giving participants the opportunity of keeping all the money to themselves and choosing not to buy anything.

Two flavors of lays (Lays masala and Lays cheese) having two different sizes (40g and 80g) were placed on a standee in the respective rooms, where the activity was going to be performed. The participants were randomly assigned to each price and nutritional label condition. The two different flavors were offered to increase realism, liking, and product purchase.

While performing the unrelated task for 25-30 minutes, participants kept on consuming their snacks. Once the session was completed, we requested participants to leave their chips bags as it is and start filling the provided questionnaire, and then their height and weight were measured. After collecting all the leftovers, we measured quantity consumed by subtracting each leftover chips quantity from the total amount inside each pack.

### Price condition and Size choice

The supersized pricing condition was denoted as 1, whereas the linear pricing condition was coded as 0. The prices for different sizes of lays in linear price condition were: Small(40g) =Rs.30, and Large(80g) = 60. On the other hand, prices in the supersized pricing condition were Rs.30, and Rs.45 for small and large packs of Lays respectively. Size choice was our dependent variable which was coded as 1 and 2 for small and large sizes of Lays.

In Pakistan, Lays does not follow value pricing for larger packs as all the packs are linearly priced. Therefore, we reduced the price by 25% in the case of supersized pricing condition, which is consistent with value pricing practices in case of other products.

### Nutritional Label to increase Health salience

Participants in the nutritional label condition (coded as 1) saw a nutritional label mentioning the number of calories and fat in each pack of lays while choosing their preferred flavor and chips pack size. Whereas participants in the control condition (coded as 0), did not see any nutritional label, and they just had to decide on their preferred flavor and chips pack size based on pricing condition.

### Quantity consumed.

The participants were told that they have approximately 30 minutes to perform their task, and they can consume their snack at the same time. They were told that they have to leave the wrappers on their seats once the session is over and fill the given questionnaire. The lab administers then informed them to get their height and weight recorded before leaving the lab. In the end, we recorded the weight of any remaining snack to deduct it from the original quantity in the pack to calculate the total amount of chips consumed by the participants (registered in grams). Additional measures.

We also asked participants to indicate their level of hunger at the end of the research session. They answered about "how hungry they were at the start of the research session (1 = not at all hungry to 6= very hungry)". We considered hunger as a control variable. Like study 2, we measured the existing weight management goal of the participants as a measure for the dieting status. First, we tested Dieting status as a moderator, but later on, it was included as a control variable as it was not found significant as a moderator. We also measured Liking for the snack and price consciousness (Lichtenstein et al. 1993; Ofir and Chezy 2004) of the consumers (1=strongly disagree to 6=strongly agree).

# **1.3.2.** Results

### Size choice.

Logistic regression was used to measure the impact of pricing condition (IV) on size choice (DV). Moreover, Nutritional labeling condition, its interaction with pricing condition, liking, hunger, flavor choice, dieting status, and price consciousness were also included as the independent variables.

Table 16: Logistic Regression Predicting Likelihood of Reporting size choice under supersized vs. linear pricing condition

							95% C.I. 1	for EXP(B)
	В	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
PC	1.355	.560	5.852	1	.016	3.876	1.293	11.615
NLC	395	.583	.459	1	.498	.674	.215	2.112
NLC X PC	-1.654	.834	3.931	1	.047	.191	.037	.981
Flavour choice	543	.455	1.420	1	.233	.581	.238	1.419
Price Consciousness	.461	.217	4.496	1	.034	1.585	1.035	2.428
Dieting status	.207	.226	.839	1	.360	1.230	.790	1.913
Hunger	.253	.191	1.744	1	.187	1.287	.885	1.873
Liking	.167	.210	.635	1	.426	1.182	.783	1.783

The full model containing all predictors was statistically significant,  $\chi 2$  (8, N = 136) = 29.506, p < .001, indicating that the model was able to distinguish between respondents who were in linear and supersized pricing conditions. The model as a whole explained between 19.5% (Cox and Snell R square) and 26.7% (Nagelkerke R squared) of the variance in size choice, and correctly classified 76 % of cases.

Price condition was significant (b = 1.355, Wald = 5.852, p<.05) with an OR=3.876; this means that consumers in supersized pricing condition were more than three times likely to upsize their chips

compared to those who were in linear pricing condition. Almost 70% of participants chose the large size of Lays in the supersized pricing condition compared to 30.3% in linear price condition, when health goal was not primed, as shown in Table 07.

Nutritional label condition was not significant (b = -.395, Wald= .459, p > .40). Like Study 2, the results also suggest that the nutritional label alone does not predict the size choice decision of consumers. But, the two-way interaction between price and NLC does, as it was significant (b = -1.654, Wald = 3.931, p < .05). Interestingly, In the control condition (no Nutritional label manipulation), the effect of the price condition was significant (OR = 5.01, p < .01), stating that participants were more than 5 times likely to opt for the larger size in the absence of nutritional label. In contrast, in the Nutritional label condition, the impact of supersized pricing on size choice is attenuated and becomes insignificant. Therefore, the presence of nutritional label enhanced the health salience, which caused the influence of supersized pricing on size choice to decrease supporting H4. Table 07 further explains these findings, suggesting that consumers size choice significantly decreased from large to small in the supersize pricing condition when they were exposed to nutritional label (from 69.7% to 43.8%).

Moreover, Likeness for the product (b = .167[ns]), hunger (b=.253, [ns]), Dieting status (b=.207, [ns]) and the flavour choice (b=-.543, [ns]) were not significant. The insignificance of all other factors further establishes the consideration of supersized pricing in the decision-making criteria of consumers. As we found in previous two studies, the influence of other factors such as hunger, liking, preference for flavour does not play significant role in consumers' decision to supersize, owing to the impact of supersized pricing.

### Alternative explanation

Although results across price condition have been significant, there might be a possibility that the price-conscious consumers might opt for the larger package size only. Hence, we included price consciousness in this study as an IV. The results revealed that Price Consciousness had a significant effect on size choice (b = .461, Wald = 4.49, p <.05) with OR=1.586, however, price condition and the interaction between PC x NLC remained significant. It suggests that although price-conscious consumers are almost 1.6 times likely to opt for the larger package size but it also explains that regardless of price consciousness consumers upsize their food options just because of the presence

of supersized pricing which is defined by the significance of the impact of supersized pricing on size choice while controlling for price consciousness.

### Consumption quantity (CQ).

To measure the effect of pricing and size choice on consumption quantity, we performed linear regression. We included consumption quantity (in grams) as our DV whereas we included price condition, Nutritional label condition, and their interaction as well as Liking, hunger, flavor choice, dieting status, price consciousness, and gender as the independent variables.

Table 17: ANOVA for Pricing and Consumption Quantity

### **Tests of Between-Subjects Effects**

Dependent Variable: Consumption Quantity								
Source	Type III Su Squares	m of df	Mean Square	F	Sig.			
Hunger	1676.092	1	1676.092	9.059	.003			
Likeness	.076	1	.076	.000	.984			
Price Consciousness	475.321	1	475.321	2.569	.111			
Flavour Choice	.283	1	.283	.002	.969			
Dieting Status	389.599	1	389.599	2.106	.149			
Gender	3274.186	1	3274.186	17.697	.000			
Price condition	1728.735	1	1728.735	9.344	.003			
NLC	3069.118	1	3069.118	16.589	.000			
PC * NLC	11.977	1	11.977	.065	.800			

The table above shows that Price condition (F (1, 134) = 9.334, p <.01) was a significant predictor of consumption quantity. It further explains the role of supersize pricing, that it's not only responsible for increasing consumers' size choice decision but also for increasing the consumption quantity.

NL condition (F (1, 134) =16.589, p <.01) was also significant but contrary to our hypothesis(H6) the interaction between PC and NLC (F (1, 134) =.065, p =.800) was not significant, explaining the notion that impact of supersize pricing on consumption quantity does not depend on the presence or absence of nutritional label.

Moreover, hunger (F (1, 134) = 9.059, p < .01) and Gender (F (1, 134) = 17.695, p < .01) were significant. It explains that in the real consumption situation, the extent to which consumers are hungry, influence their consumption quantity. Hence it can be stated that consumers are more likely to consume more food, in case of being hungrier, which is not surprising as hunger plays a significant role in our decision related to the quantity of food one must eat in a single consumption occasion. Moreover, our findings also suggest that male consumers are more likely to consume more quantity of food compared to their female counterparts.

Interestingly, Price consciousness (F (1, 134) = 2.569, p = .111), dieting status (F (1, 134) = 2.106, p = .149), Liking (F (1, 134) = .000, p = .994) and, Preference for flavour (F (1, 134) = .002, p = .969) were not significant. This is understandable as price consciousness relates more to purchase decisions, not to the amount of food one must eat. However, the insignificance of liking is bit surprising though, as liking for the food also determines the consumption quantity. The tastier the food is, the more will be quantity consumed.

Our analysis of independent sample t-test demonstrates that participants in the supersized pricing condition consumed more chips compared to linear pricing condition regardless of NLC (M<sub>supersized</sub>=43.82g vs M<sub>linear</sub>=33.09g, F=4.262, p<.05) supporting hypothesis 5.

Moreover, when there is no nutritional label involved (neutral condition), price condition was significant ( $M_{\text{supersized}} = 50.09 \text{ vs. } M_{\text{linear}} = 41.93$ , t = -2.109, p < .05), this means that participants consumed more chips in the supersized pricing condition compared to those who were in linear pricing condition. However, when the nutritional label was present, there was no significant difference between quantity consumed in supersized vs linear pricing condition ( $M_{\text{supersized}} = 37.54 \text{ vs. } M_{\text{linear}} = 32.25$ , t = -1.93, p = .120) which is contrary to our hypothesis (H6).

We believe that participants consumed more quantity of lays in the supersized pricing condition because of more purchases of larger package sizes. Participants who were in supersized pricing condition purchased more units of large size, and they had the license to consume more due to the value-based financial incentive and disregarded health goal. Hence, they were not worried about curtailing the quantity to be consumed. It's also worth mentioning that those individuals who were part of supersized pricing and control condition consumed more amount of chips compared to the participants who were in supersized pricing with nutritional label condition (Msupersized=50.09,  $M_{\text{supersizedNLC}} = 37.54$ , t = 3.206, p < .01) and same pattern appears in case of linear pricing condition (Mlinear=41.93,  $M_{\text{lineaNLC}} = 32.25$ , t = 2.923, p < .01).

Based on these findings, it can be concluded that consumers who come across with supersized or linear pricing without any exposure to nutritional label consume more quantity of food compared to those who were never exposed to the nutritional label. One reason behind this pattern is that consumers size choice decision was influenced by the presence and absence of nutritional label as those who were under NLC decided to choose less of larger size than those who were in control condition. They decide to choose large that makes consumers feel obligated to finish the pack as per their consumption norm of finishing the food served and not wasting the food. Hence the interaction of PC and NLC was significant in case of Size choice but not in case of consumption quantity.

Although it does not provide any specific evidence about why this happened. We are of the opinion that the interaction of NLC and PC influence consumers while they have to make decision regarding a particular package size to buy, but once the specific package size is bought ,the interaction of NLC and PC does not influence consumption quantity, as the act of consumption comes after the consumers exposure to nutritional label in the retail environment. According to a metanalysis performed by Zlatevska et al. 2014, consumption quantity increases by 35% with increase in portion sizes, but with extremely large packages this effect diminishes. Therefore, once a specific size of the product is bought, then consumers rely on the size of the container for the quantity to be consumed decisions.

### Food Waste

Apart from consumption quantity, we also tested for food waste. We examined the influence of pricing condition and size choice on food waste. Surprisingly, we found that Price condition (F (1, 134) = .008, p=.929) was not a significant predictor of food waste whereas the interaction between

pricing condition and NLC was significant (F (1, 134) = 15.462, p<.001). As shown in figure 19 mentioned in the appendix section.

The figure suggests that when there were no nutritional label consumers wasted more food in supersized pricing condition compared to linear pricing condition whereas in the presence of nutritional label condition consumers wasted less food in supersized pricing condition compared to linear pricing condition. Consumers wasted more food in linear pricing condition when nutritional label was present. It can be said that the presence of a nutritional label made consumers choose the smaller size and the absence of nutritional label made consumers opt for larger size of lays and hence resulted in less and more food waste respectively in the supersized pricing condition which makes sense. Though, the behaviour of consumers cannot be explained when it comes to linear pricing condition as they have wasted more food in the presence of a nutritional label.

Moreover, size choice (F (1, 134) = 57.50, p<.001) was a significant predictor of food waste. Although we did not hypothesize this relationship, we found that participants who chose the larger pack of lays wasted more food compared to those who chose the smaller pack of lays, regardless of pricing condition.

Our analysis of independent sample t-test demonstrates that participants who chose a larger pack of lays wasted more chips compared to the participants who chose the smaller package (Mlarge=22.24 g vs Msmall=9.22g, F=23.38, p<.001).

When the larger package size of food is obtained, consumers also waste more food from it, although our findings also suggest that consumers consume more food from the larger package size, but at the same time the effect of larger package size diminishes as suggested by Zlatevska et al. (2014); as a result consumers continue consuming the food from the larger pack up to a point when they start feeling satiated. Once the consumers reach their satiation, they stop consuming the food, and it gets wasted.

# 1.3.3. Discussion.

This study provides us more evidence about the diminishing role played by the nutritional labels over the influence on supersized pricing. Notably, this effect arises in the case of actual food, purchased and consumed in the real environment. It proposes vital suggestions for supersized pricing and the use of Nutritional Labels to decrease the propensity of consumers to uplift their size choice towards large pack considering supersized pricing. Moreover, as the participants were free to consume whatever quantity they wished to, from their purchased size of chips, without considering the factors that might affect their consumption. It leads us to the conclusion that it's the supersized pricing that encourages consumers to opt for more significant sized option among the other alternative sizes, which influences the amount of food they eat. Consumers want to make the best of their purchase decisions by consuming most of the quantity that a given package size offers. Moreover, this study also explained the limitation of Nutritional label in controlling the consumption quantity, as we found that it moderates the impact of supersized pricing on size choice but not on the consumption quantity. Although we did not hypothesised, but this study also sheds some light on the impact of supersizing on food waste, as consumers wasted more food from the larger packs compared to smaller containers.

# 1.4. STUDY 4

In this study, we examine the impact of supersized pricing on size choice in delayed consumption context, where consumers consume the food on multiple occasions such as purchasing multi-pack of candy bars, a multi-pack of chocolates or ice cream. Moreover, we also examine the moderating role of Nutritional label as an intervention for the effect of pricing on size choice. Thereby, we reassess the decision-making process via the importance that consumers assign to health or value as we did in previous studies. The objective is to examine whether the shift in health importance and value-based justification also occurs in a delayed context or not.

# 1.4.1. Methodology

We recruited 130 respondents to participate in this study, of which 125 were considered as part of analysis.5 respondents were excluded from the data set due to more than 20% missing data. The participants were randomly assigned to one of four conditions in a 2 (price: linear vs. supersized) x 2 (Nutritional label: yes vs. control) between-subjects design.

Participants in all the conditions were asked to imagine purchasing a multipack of chocolates, which are offered in two different package sizes. Participants first indicated their size choice and answered the rest of the questions. We choose Cadbury chocolates for this study as its one of the top-selling chocolate brands in the country.

### Price condition and Size choice

The participants were equally divided into supersized and linear price conditions, and they were asked to choose their preferred package format, followed by different prices as per pricing condition for each size. The two chocolate boxes were labeled as small and large size having a volume of 264g and 528g respectively.

The supersized pricing condition was denoted as 1, whereas the linear pricing condition was coded as 0. The prices for different chocolate boxes in linear price condition were: Small box (264g) =Rs.216, and Large(528g) =Rs.432. On the other hand, prices in the supersized pricing condition were Rs.216 and Rs.345 for Small and Large chocolate boxes respectively. The small box of chocolate was coded as 1 whereas large size was coded as 2

### Nutritional Label to increase Health salience

In the health salience condition (coded as 1) participants saw a nutritional label mentioning the total number of calories, fat, and sugar in each bar of chocolate along with total calories in the whole box of chocolates. In the control condition (coded as 0), participants did not see any nutritional label, and they just had to decide their preferred package size choice.

### Health importance.

The respondents were asked to "indicate how important each of the several product attributes was to their purchase decision" on a 6-point scale where 1 was labeled as not at all important and 6 was labeled as very important. Three items assessed health importance: the number of calories, fat, and sugar. These three items were averaged to create a health index ( $\alpha$  = .91). Other items such as health concerns and nutritional properties were deleted from the construct to improve reliability. They were included among filler items such as convenience.

### Value-based justification.

We also measured the degree to which respondents justify their decision of enhancing the purchased quantity through the pricing of the product. Two items measured the value-based justification (r = 0.79\*\*, p < .01). "Indicate the extent to which the pricing for the small and large box of chocolates gave you an excuse to purchase the larger size" and Indicate the extent to which the price difference between two chocolate boxes offered encouraged you to purchase a larger size than the size you usually buy? On a 6-point Likert scale where 1 = 1 not at all and 1 = 1 or 1 = 1 or 1 = 1 and 1 = 1 or 1

We found health importance and value-based justification not significantly correlated with each other (r = -.069, p = .446).

### Additional measures.

Participants indicated liking, dieting status, price consciousness, and health consciousness on 6-point Likert scale which were tested as a control.

### **1.4.2.** Results

#### Size choice.

Logistic regression was used to measure the impact of pricing condition (IV) on size choice (DV). Moreover, Nutritional labeling condition, its interaction with pricing condition, liking, Price Consciousness, and Health Consciousness were also included as the independent variables.

Table 18: Logistic Regression Predicting Likelihood of Reporting size choice under supersized vs. linear pricing condition

S.E. .635	Wald	df	Sig.	E (D)
.635			~8.	Exp(B)
	10.599	1	.001	7.898
.710	.008	1	.930	.940
.915	.307	1	.579	.602
.235	4.144	1	.042	1.613
.189	.768	1	.381	.848
.223	9.017	1	.003	1.954
.235	1.180	1	.277	1.291
	.235	.235 1.180	.235 1.180 1	.235 1.180 1 .277

The full model containing all predictors was statistically significant,  $\chi 2$  (7, N = 125) = 39.94, p < .001, indicating that the model was able to distinguish between respondents who were in linear and supersized pricing conditions. The model explained between 27.4% (Cox and Snell R square) and 36.7% (Nagelkerke R squared) of the variance in size choice, and correctly classified 76 % of cases.

The price condition was significant (b=2.067, Wald =10.59, p <.01) with an OR=7.89, suggesting that consumers in the supersized pricing condition are more than 7 times likely to opt for the larger box of chocolates compared linear price. As table 07 illustrates that the percentage of consumers

choosing the larger box of chocolates in supersize pricing condition increased to almost 69% compared to 24% in linear price condition, especially when there was no NL.

Neither Nutritional label condition (b = -.062[ns]) nor the two-way interaction between Price and Nutritional label condition was significant (b = -.507[ns]). Moreover, nutritional label fails to moderate the influence of pricing on size choice, unlike immediate consumption context. The percentage of consumers choosing the larger box of chocolate in supersized pricing condition slightly decreased from 68.6 to 51.4% when exposed to nutritional labels (See table 07). It probably happens because people consider that they won't consume all the chocolates in one consumption occasion; hence they can take advantage of price and does not consider nutritional information to be important in the latter context and consumption in multiple occasions.

Interestingly, the pricing condition was significant in the control condition (OR = 7.52, p < .01) and also in the Nutritional label condition (OR = 4.74, p < .05). This effect did not occur in any of our previous studies conducted in an immediate consumption context. Hence the presence of nutritional labels does not enhance the health salience; as a result, the impact of supersized pricing on size choice does not decrease.

Moreover, liking (b=.478, Wald =4.173, p <.05) and price consciousness (b=.670, Wald =9.02, p <.01) were significant whereas Health consciousness (b=-.165, Wald =.768, p >.38) was not significant. In this case, price-conscious consumers prefer to take advantage of promotions by purchasing the larger pack and enjoying the feeling of meeting the financial goal with the pleasure of consuming more quantity and less price for the coming days. Hence price consciousness is significant. Moreover, liking is also significant, so those who love to eat chocolates will love to go large regardless of price but to buy on discount will be icing on the cake for them.

#### Health importance (HI):

Although we did not hypothesize the mediation of health importance in this dissertation about delayed consumption context. However, considering the nature of the product and not immediate health consequences, we may propose that the health importance would not mediate the impact of price condition on the package size choice.

Like study 1, we performed a bootstrapping mediation analysis with 5000 iterations. Though for this study, we ran mediation analysis as suggested by Preacher and Hayes (2004) to examine the mediating role of health importance and value-based justification. We included health importance and value-based justification as a possible mediator.

While performing the mediation analysis, we included pricing condition as an independent variable, whereas the size choice was considered as the dependent variable, along with three additional covariates.

Table 19: Mediating role of HI

Dependent	Independent	В	S.E.	p	LLCI	ULCI
HI	PC	3779	.1995	.0607	7730	.0172
SC	PC	1.8296	.4613	.0001	.9254	2.7338
SC	HI	.0371	.1940	.8484	3431	.4173
Indirect of X on	Y at the value of a	mediator				
		0140	.0946		2386	.1571

The results were not significant at 95% CI as the indirect effect of x on y did include zero for the mediator health importance (-.2386 to .1571). Hence, it can be concluded that the shift in health importance does not occur in case of a delayed consumption context. Thus, health importance does not mediate the relationship between pricing and size choice.

#### Moderated mediation

Moreover, we also checked for moderated mediation following the procedure proposed by (Preacher et al., 2007). While testing for moderated mediation, we did not find Nutritional label to play its moderating role in reducing the influence of PC on SC; as suggested by the index of moderated mediation (95% CI: -.3918 to .1646) in table 20.

Table 20: Moderated Mediation HI on SC at NLC

Conditional	Conditional Indirect effect of PC on SC at the values of the NLC							
Mediator								
	NLC	Effect	SE	LLCI	ULCI			
HI	0	0078	.0820	2485	.1077			
HI	1	0208	.1399	3661	.2319			
Index of Mo	oderated mediatio	n						
Mediator								
		Effect	SE	LLCI	ULCI			

-.0130

The mediator, health importance was neither significant in the presence of NLC (-.3661 to .2319) nor the absence of NLC (-.2485 to .1077). It suggests that in the case of delayed consumption context consumers are not focused on their health goal, and the presence of a nutritional label does not enhance their health importance either. It is probably the case because consumers consider that the whole box is not going to be consumed in the single day and the amount, they will consume in upcoming days does not require them to worry about health.

.1238

-.3918

.1646

#### Value-based justification (VBJ):

HI

We may propose that the VBJ would mediate the impact of price condition on the package size choice. Like study 2, we performed a bootstrapping mediation analysis with 5000 iterations suggested by Preacher and Hayes (2004) to examine the mediating role of value-based justification.

While performing the mediation analysis, we included pricing condition as IV, whereas the size choice was considered as the dependent variable, along with three additional covariates.

**Table 21: Mediating role of Value-based justification** 

Dependent	Independent	В	S.E.	p	LLCI	ULCI
VBJ	PC	.8684	.1881	.0000	.4960	1.2409
SC	PC	1.3809	.4816	.0041	.4370	2.3248
SC	VBJ	.5412	.2152	.0119	.1194	.9631
Indirect of X on	Y at the value of a	mediator				
		.4700	.2643		.0535	1.0275

The results were significant at 95% CI as the indirect effect of x on y did not include zero for the mediator value-based justification (justification: .0535 to 1.0275). Hence, it can be concluded that mediation does exist in the case of value-based justification, suggesting that supersized pricing activates the value goal of consumers, and encourage them to opt for the larger container of chocolates in order to get more bang for their buck.

Moreover, we also performed the moderated mediation analysis to check whether the nutritional label moderate the mediating role of VBJ between pricing and size choice as shown in table 22.

Table 22: Moderated Mediation VBJ on SC at NLC

Conditional I	Conditional Indirect effect of PC on SC at the values of the NLC							
Mediator								
	NLC	Effect	SE	LLCI	ULCI			
VBJ	0	.4966	.3191	.0359	1.2182			
VBJ	1	.4431	.2705	.0426	1.0538			
Index of Mod	lerated mediation							
Mediator								
		Effect	SE	LLCI	ULCI			
VBJ		0535	.2546	6702	.3731			
			220					

While testing for the moderated mediation we did not find nutritional label to emerge as a significant moderator to reduce the influence of PC on SC as suggested by the index of moderated mediation (95% CI: -.6702 to .3731) such that at different values of moderator, we found that value-based justification to be significant regardless of NLC .i.e. control condition (95% CI: .0359 to 1.2182) and in the presence of nutritional label (95% CI: .0426 to 1.0538). This suggests that in case of delayed context nutritional label does not influence value-based justification either.

Hence, we can conclude that the supersized pricing inspires consumers to opt for an upsized product than normal circumstances by providing them with value-based justification. Value-based Justification emerged to be a significant mediator in the delayed consumption context also. However, the nutritional label does not attenuate the size choice, nor it moderated the mediating influence of value-based justification between pricing and size choice.

### 1.4.3. Discussion

This study illustrated that supersized pricing plays a significant role in making consumers choose the larger sized option among other options whereas nutritional labels do not play a vital role in making health goal more salient in environments where consumers are choosing the products for later consumption. Moreover, the specific health importance procedure is also following our proposed theory, illustrating that the consumers' response to supersized pricing does not cause the shift in the health importance in buying decisions, as demonstrated by mediation and moderated mediation that even in the presence of nutritional labels health importance was not significant. Lastly, as theorized, we found that supersized pricing made the value goal more salient; as a result, consumers start feeling more justified while opting for the larger sized product, primarily when they were not concerned about their health goal.

# 1.5. STUDY 5

This study was conducted in France for various reasons as it extends our preceding results in multiple ways: 1) it brings further evidence for the existing decision-making process in a different country; 2) it investigates H7 and H8 for the potential mechanism behind supersized pricing and anticipated consumption guilt and some positive effects of supersized pricing when it's applied to less hedonic foods having nutritional claim such as low fat. Moreover, the notion of healthy foods in the form of low-fat nutritional claim or Bio food, etc. is more common in France then Pakistan; therefore, we included product type variable in this study

#### Pre-test

First, we conducted a pre-test to measure the perceived healthiness of products following the scale used by Wilcox et al. (2009) to check the perceived healthiness of products. We asked participants to rate and evaluate 2 different food products having two variants based on nutritional claims, Coca Cola vs Coca Cola Zero and Lays Natural vs Lays Light with a low-fat nutritional claim, using 6-point Likert scale with 1 representing strongly disagree whereas 6 representing strongly agree. The scale comprised of 3 item measures for healthiness perception of food products (e.g., eating/drinking this product "is unhealthy," "is bad for you," "is not nutritious").

Participants rated Coca-Cola(M=5.05) lays natural (4.80) and coca Cola zero(3.75) as least healthy option whereas they rated lays light as slightly healthy(M=2.65) and nuts as most healthy option(M=1.95). Because there is a slight difference between the perceived healthiness of nuts and lays light (low fat) label, we decided to consider lays as our product type for this study. Research suggests that the products having high fat are believed to be more hedonic than low-fat products (Wertenbroch 1998). According to Chandon and Wansnik (2006) low-fat products are perceived to be slightly healthy, and consumers underestimate their calorie consumption compared to more hedonic products having regular labels.

### 1.5.1. Methodology

We recruited 300 students who were reduced to 274 to participate in this study. The participants were equally divided and assigned randomly to one of 08 different conditions via a 2 (price: supersized vs. linear) x 2 (product type: regular lays vs. low fat lays) x2 (goal prime, health vs control) between-subjects design.

#### Goal Primes (GP):

In this study, we implanted goal primes on the first page of the study, similar to the procedure proposed by Mandel and Johnson (2002). Participants in both goal prime and control condition read the same information related to Consumer decision making. The only difference was the inclusion of a stick figure with apple weight bars on both sides (coded as 1) whereas the neutral condition (having pencil sharpeners in the background) was coded as 0.

#### Product Type conditions (PT):

After the nonconscious goal prime, participants were provided with a purchase scenario including either a small, medium or large size of the more hedonic product (Lays nature, coded as 0) and less hedonic product (Lays light (low fat), coded as 1).

#### **Pricing conditions (PC):**

The supersized pricing condition was denoted as 1, whereas the linear pricing condition was coded as 0. The prices for different lays sizes in linear price condition were: Small=0,59, Medium=1,57 and Large= 1,97. On the other hand, prices in the supersized pricing condition were Rs.0,59, 1,02 and 1,21 for all three sizes of Lays nature, respectively. On the other hand, prices for lays light were adjusted as per industry average discount on lays nature. In linear condition the prices for lays light (low fat) were Small=0,78, Medium=2,08 and Large=2,6. In case of supersized pricing Small=0,78, Medium=1,35 and Large=1,55.

The prices for Lays nature were as per industry practice, whereas pricing for the lays light was adjusted according to price discount offered for larger sizes of lays nature. We did so because of a lack of other sized options of lays light in the market; as lays light is the newly introduced product in the market.

#### Size choice (SC):

Size choice was our dependent variable which was coded as 1,2 and 3 for small, medium and large sizes of Lays. We asked participants to imagine themselves in a supermarket while choosing among three package size options of Chips (Lays). The participants in the more hedonic product type condition saw three size options of Lays Nature, i.e., 45g and 120g, and 150g respectively, whereas participants in the less product condition saw Lays Light with low fat label with same three sizes.

#### Health importance (HI):

Like study 2, The respondents were asked to "indicate how important each of the several product attributes was to their purchase decision" on a 6-point scale where 1 was labeled as not at all important whereas 6 was labelled as very important.

Three items assessed health importance: the number of calories, Fat, and health concerns. These three items were averaged to create a health index ( $\alpha = .88$ ). They were included among filler items such as convenience.

#### *Value-based justification (VBj):*

We also wanted to measure the degree to which respondents justify their decision of enhancing the purchased quantity through the pricing of the product. Two items measured the value-based justification (r = .752, p < .01) which were borrowed and adapted from the scale used by Haws and Winterich (2013).

#### Anticipated consumption Guilt (ACG):

To measure anticipated consumption guilt, participants were asked "How guilty /regretful /uneasy /hesitant /reluctant /sorry would they feel about spending money on purchasing their chosen package size of Lays chips?", using a 6-point scale (1=not at all guilty and 6= extremely guilty) with ( $\alpha = .92$ ). Following the scale used by (Choi et al. 2014). We modified the questions of the scale as per our research context.

Moreover, we also included one additional scale to measure the guilt associated with each size of lays. The participants were asked to "Indicate the degree to which guilt would be associated with

the consumption of either of the package sizes of Lays chips (Small, Medium and Large). Rugar et al. (2015) used the same scale for measuring the anticipated consumption guilt associated with two different types of theatres. We modified the question as per our research context.

#### Additional measures.

Like study 3, we measured the existing weight management goal of the participants as a measure for the dieting status and also the level of hunger. Moreover, we also measured health consciousness (Gould 1990) as well as price consciousness (Lichtenstein et al. 1993; Ofir and Chezy 2004) of the consumers (1=strongly disagree to 6=strongly agree). All these additional variables were tested as control variables.

### **1.5.2.** Results

Ordinal Logistic regression was used to measure the impact of pricing condition (IV) on size choice (DV). Moreover, Goal prime and product types were included along with their two way and three-way interactions with pricing condition. We also included liking, hunger, health, and price consciousness in the model.

Price condition was significant (b = 2.203, Wald = 17.804, p < .001) with an (OR = 9.05, p < .001). According to the Odd ratio the participants in the supersized pricing condition were more likely upsize their package size compared to those in linear price condition. More than 74% participants chose the medium/large size of lays nature in the absence of health prime, in the supersize pricing condition, compared to 35.5% in case of linear price. Similarly, more than 88% participants choose the medium/large container of Lays light in supersized pricing condition when health goal was not primed compared to 62.9% in linear price condition (See table 07). Goal prime was not significant whereas product type (b = 1.453, Wald = 7.99, p < .001), suggesting that participants are more likely to buy large container of Lays light compared to Lays Nature. Moreover, the two-way interactions between pricing condition x goal prime (b = -1.424, Wald = 4.229, p < .05) and goal prime x product type (b = -1.538, Wald = 4.882, p < .05) was significant. Most importantly the three-way interaction between pricing condition, goal prime and product type were significant (b=1.897, Wald =3.893, p<.05), supporting hypothesis (H7). As shown in table 23.

Table 23: Ordinal Logistic Regression Predicting Likelihood of Reporting size choice under supersized vs. linear condition

	Estimate	Std error	Wald	Df	p	Lower	Upper
						Bound	Bound
PC	2.203	.522	17.804	1	.000	1.180	3.227
GP	.601	.505	1.417	1	.234	389	1.590
PT	1.453	.514	7.999	1	.005	.446	2.459
Likeness	.194	.098	3.888	1	.049	.001	.386
Hunger	.328	.097	11.539	1	.001	.139	.518
PCxGP	-1.424	.692	4.229	1	.040	-2.781	067
GPxPT	-1.538	.700	4.822	1	.028	-2.910	165
PCxPT	732	.691	1.122	1	.289	-2.085	.622
PCxGPxPT	1.897	.961	3.893	1	.048	.013	3.780
HC	125	.115	1.197	1	.274	350	.099
PC	.021	.108	.037	1	.847	190	.232

In accordance with our prior findings, we did not find significant impact of price on the size choice of more hedonic product (Lays nature) in the presence of health goal prime (b = 0.299, Wald = .416, [ns]), whereas it was significant in control condition (b = 1.944, Wald = 13.55, p < .01). Moreover, there was a significant effect of pricing condition on the size choice of less hedonic and relatively healthy product (Lays light) in both the control condition (b = 1.323, Wald = 7.404, p < .01) as well as health goal prime condition (b = .919, Wald = 3.907, p < .05). These findings support our hypothesis (H7) related to the three-way interaction between supersized pricing, type of food and health goal prime, suggesting that when the food type is less hedonic(relatively healthy), the health goal prime will not affect the influence of supersized pricing on size choice whereas health cue (health goal prime) will attenuate the impact of supersized pricing on size choice in case of more hedonic(unhealthy) product.

Interestingly, the supersized pricing effect occurred even in the presence of health goal prime condition, probably because participants already had a healthiness perception regarding lays light which had a nutritional claim of "Low Fat" and the health goal prime provided a redundant cue.

Moreover, in control condition, when the participants were not exposed to health goal prime, the price significantly affected the size choice for both food types(Lays nature vs lays light), proposing that supersized pricing has the natural tendency to prime value and enhance size choice regardless of food type.

Interestingly, the type of food is also significant. It can be said that people do prefer less hedonic food products such as lays light(low fat), probably because French consumers are more exposed to such products and they have the healthiness perception about these food products.

Supporting the previous findings related to liking and hunger, we also found liking and hunger to be significant, suggesting that consumers liking as well as their level of hunger also encourages them to opt for the larger package size. Interestingly, price consciousness and health consciousness are not significant in the current study, whereas price consciousness was significant in the previous study conducted in Pakistan.

One might expect, considering the difference between consumption norms and economic situations of two countries, Pakistani consumers can be said to be more price-conscious than health-conscious

that's why it was significant there not here. However, we were expecting health consciousness to be significant in the case of France, as French consumers are believed to be more concerned about their health. However, looking at the estimate (-.125) in table 23, one would say that health consciousness might have some role to play in discouraging people from purchasing larger containers of food.

#### Moderated mediation

We tested for moderated mediation of pricing condition, health goal prime, and food type interaction using the bootstrapping technique with 5000 iterations as proposed by (Preacher et al., 2007). We included health importance and VBJ as two of our mediators, whereas size choice was measured as a DV.

Table 24: Impact of Price on Size choice mediated by HI and VBJ

Dependent	Independent	В	S.E.	p	LLCI	ULCI
HI	PC	4638	.2355	.0499	9274	0002
VBJ	PC	1.3758	.2827	.0000	.8192	1.9325
SC	PC	.0495	.0876	.5723	1229	.2219
SC	HI	-1092	.0315	.0066	1712	0472
SC	VBJ	.1877	.0262	.0000	.1361	.2393
		The indire	ct effect of x	on y		
HI		.1492	.0498		.0602	.2449
VBJ		.2247	.0429		.1505	.3212

Table 24 explains the mediating role of Health importance and value-based justification in demonstrating the impact of supersized pricing on size choice.

The findings suggest that both the mediator's health importance, as well as value-based justification, has a significant indirect effect (95% CI: .0602 to .2449) and (95% CI: .1505 to .3221). Moreover,

after controlling for health importance and value-based justification, the total effect of price condition on size choice decreased (c'=.0495, p=.52).

#### In the case of Health Importance

The health importance was not significant (95% CI: -.0012 to .1405) in case of more hedonic/unhealthy food such as lays nature in control condition, however health importance became significant in the presence of health goal prime (95% CI: .1022 to .3850).

On the other hand, less hedonic product (Lays light with the low-fat nutritional claim) was significant in both the control condition (95% CI: .0075 to .1534) as well as health goal prime condition (95% CI: .1012 to .4019). As shown in table 25.

Table 25: Conditional Indirect effect of PC on SC at the values of the Health goal prime and product type in case of HI

Conditional Indirect effect of PC on SC at the values of the Health goal prime and product type

Mediator						
	Goal prime	Food type	Effect	SE	LLCI	ULCI
HI	0	0	.0506	.0354	0012	.1405
HI	0	1	.0596	.0359	.0075	.1534
HI	1	0	.2335	.0721	.1022	.3850
НІ	1	1	.2424	.0762	.1012	.4019

We can notice that the presence of goal prime has stronger effects on the health importance in case of both product types, which was expected. Interestingly, health importance does not emerge as a significant mediator between supersized price and size choice for more hedonic and unhealthier food types like Lays nature in our case. Contrary to this, health importance appears to be a significant mediator between supersized pricing and size choice regardless of the goal prime. We think that this happens because consumers already perceive Lays light following their health goal as the low-fat nutritional claim indicates the healthiness of the product to them. As a result, consumers place reasonable health importance on lays light (less hedonic) compared to lays nature (more hedonic).

As it is shown in Figure 20, consumers give more importance to health whenever they are exposed to linear price condition and this importance associated with health in case of health goal prime condition. Moreover, overall, supersized pricing has the tendency to reduce the importance that consumers might give to their health regardless of the food type, however, the presence of health cue does play its role in enhancing the health importance in case of unhealthy food products.

#### In the case of Value-based justification

The value-based justification was found to be a significant mediator when there was no health goal prime (control condition) for lays nature (95% CI: .1326 to .4200); however, it was not significant in health goal prime condition (95% CI: -.0102 to .1834). As shown in table 26.

These findings are the same as study 2, once again backing the mediating role of VBJ in the relationship between price and size choice, especially in the absence of health cue.

Table 26: Conditional Indirect effect of PC on SC at the values of the Health Goal Prime and product type in case if VBJ

Conditional Indirect effect of PC on SC at the values of the Health Goal Prime and product type

Mediator						
	Goal Prime	Product type	Effect	SE	LLCI	ULCI
VBJ	0	0	.2582	.0736	.1326	.4200
VBJ	0	1	.3605	.0668	.2439	.5055
VBJ	1	0	.0726	.0479	0102	.1834
VBJ	1	1	.1749	.0546	.0793	.2969

Fascinatingly, in the case of lays light, VBJ emerged as a significant mediator between supersized price and size choice, in control condition (95% CI: .2439 to .5055) and also in goal prime condition (95% CI: .0793 to .2969), as anticipated. It happens as the food with a low-fat nutritional claim is perceived to be healthy compared to the Lays nature which has no low-fat label and consumers achieve their financial goal by buying a larger size among other options despite health being salient.

Supersized pricing significantly enhances the value goal of consumers in case of both food types specially when there is no health goal prime (See figure 21). However, the presence of health goal prime does activate the health goal of consumers; as a result the value-based justification that consumers get for upsizing their food options due to supersized pricing decreases, especially for unhealthy food type(Lays nature).

#### **Anticipated Consumption guilt**

We tested for moderated mediation of pricing condition, health goal prime and food type interaction using bootstrapping technique with 5000 iterations as proposed by (Preacher et al., 2007). We included anticipated consumption guilt as one of our mediators, whereas size choice was measured as a DV.

The findings suggest that Anticipated consumption has a significant indirect effect (95% CI: - 1.3311 to .3656). Consumption guilt associated with the purchase of hedonic product reduced in the presence of supersized pricing and this reduction mediated an increase in size choice decision

However, after controlling for ACG the total effect of price condition on size choice decreased but remained significant (c'=.5569\*\*\*). As shown in table 27. It implies that although consumers anticipate the feelings of guilt while spending money on the purchase of a particular size of a more hedonic (unhealthy) product but the impact of supersized pricing on size choice still remains significant despite the involvement of ACG as a mediator.

Table 27: Impact of Price on Size choice mediated by ACG

Dependent	Independent	В	S.E.	p	LLCI	ULCI
ACG	PC	9940	.1712	.0000	-1.3311	3656
ACG	PC x PT	.9109	.1963	.0000	.5243	1.2974
ACG	PC x GP	3187	.1964	.1059	7054	.0681
SC	ACG	.1887	.0480	.0001	.0942	.2831
SC	PC	.5569	.0889	.0000	.3818	.7321

In case of lays Nature, which is more hedonic and perceived as unhealthy food, ACG emerged as a significant mediator between supersized price and size choice, not only in neutral condition (95% CI: -.3119 to -.0941) but also in health goal prime condition (95% CI: -.3888 to -.1278), as anticipated. It happens because consumers are always predisposed to guilt when it comes to consumption of more hedonic food products and supersized pricing reduced the consumption guilt associated with it probably because of the justification effect it carries. However, the impact of supersized pricing on anticipated consumption guilt is reduced in the presence of health prime, because health prime makes consumers realize their health which adds to the feeling of guilt(See table 28).

Table 28: Conditional Indirect effect of PC on SC at the values of the Health Goal Prime and product type in case of ACG

Conditional Indirect effect of PC on SC at the values of the Health Goal Prime and product type

Mediator						
	Goal Prime	Product Type	Effect	SE	LLCI	ULCI
ACG	0	0	1875	.0554	3119	0941
ACG	0	1	0157	.0314	0878	.0398
ACG	1	0	2477	.0664	3888	1278
ACG	1	1	0778	.0403	1758	0129

Fascinatingly, in case of lays Light, ACG did not emerge as a significant mediator between supersized price and size choice in control condition (95% CI: -.0878 to .0398), but it does mediate the relationship between supersized pricing and size choice in health goal prime condition (95% CI: -.1758 to -.0129) as shown in Figure 22. Usually, when it comes to less hedonic products the consumers do not anticipate much guilt, and hence they did not seek any justification before spending money on the purchase of such product, leading to no mediation effect of anticipated

consumption guilt in the neutral condition. However, when health prime is introduced, consumers anticipate consumption guilt which appears in the form of a significant mediation effect. The presence of health goal prime might have primed the importance that consumers associate to their health, which resulted in increased anticipated consumption guilt even in case of product like Lays nature because we can't exclusively exclude guilt from less hedonic products as we can do in case of products like fruits and carrots etc.

Overall, the group comparison shows that participants anticipated more guilt while spending money on Lays Nature (Unhealthy) (ACGlinear=3.67 vs. ACGsuper=2.51, F=4.498, p<.05), whereas there was no significant difference in their anticipated consumption guilt in case of Lays light(less hedonic) (ACG<sub>linear</sub>=2.87 vs. ACG<sub>super</sub>=2.63, F=.028, p=.86). Supporting our hypothesis that supersized pricing reduces the anticipated consumption guilt associated with the hedonic product as the participants had a justification in the form of savings.

Moreover, to better understand the mediating role of guilt between pricing and different size choices, it also essential to know whether consumers' anticipation of consumption guilt varies based on varying size choices or not. Hence, we compared the anticipation of guilt associated with the consumption of either of the package sizes.

Our analysis of independent sample t-test demonstrates that participants who were in linear price condition anticipated more consumption guilt compared to those who were in supersize pricing condition (see table 29).

There was no significant difference in anticipation of consumption guilt with small size of lays,  $Msmall_{Linear}$ =2.37 vs  $Msmall_{super}$  =2.07;(F (1,272) =1.103, [ns]. Whereas there was significant difference in anticipated consumption guilt associated with medium and larger size, in general  $M_{medlLinear}$ =3.83 vs  $M_{medsuper}$ =2.48;(F (1,272) =4.02, p<.05 and  $M_{largeLinear}$ =4.21 vs  $M_{largesuper}$ =2.77;(F (2,272) =14.67, p<.01.

Furthermore, participants associated more feelings of consumption guilt with the larger package size of both product types. Precisely, in the case of regular lays, the anticipation of guilt was more in linear price condition vs supersized condition 4.73 vs 2.79; (F (1,135) =23.4, p<.01). Similarly, in case of lays light, the anticipation of guilt was more in linear price condition=3.67 vs

supersized=2.74; (F (1,135) =8.9, p<.01). These findings explain that consumers associate feelings of guilt with larger package size, and as we discussed our moderated mediation analysis, that the feelings associated with hedonic food products are diminished through supersized pricing and hence we found a significant mediation effect.

Table 29: How Supersized Pricing Influence Anticipated Consumption Guilt (Means and Standard deviations)

			Product type			
Mediator	Price	Package size	Lays Nature	Lays Light		
Anticipated Consumption Guilt	Supersized	Small	2.19(1.41)	1.96(1.37)		
		Medium	4.64(.95)	2.34(1.09)		
		Large	2.79(1.48)	2.74(1.28)		
	Linear	Small	2.60(1.18)	2.13(1.36)		
		Medium	2.63(1.33)	2.76(1.45)		
		Large	4.73(0.90)	3.67(.944)		

Finally, table 29 shows that supersized pricing reduced the guilt associated with a package size of hedonic products. However, the intensity varies in case of more hedonic products such as lays nature compared to less hedonic products (lays light with low-fat label). In fact the anticipation of consumption guilt for the medium-sized lays light(low fat) (M=2.76 vs M=2.34, p=.06) was marginally significant, which supports our hypothesis that people associate more guilt with more hedonic product than less hedonic product. But as the size grows bigger, people start associating guilt with consumption of low-fat labeled products also. In summary, consumption guilt is influenced by supersized pricing it also varies with more or less hedonic nature of the product.

### 1.5.3. Discussion

This final study demonstrates the influence of health primes on consumers' reactions to supersized vs. linear pricing. Exclusively, we replicated the impact of supersized pricing on size choice in neutral prime condition and found that it exists for both less hedonic (Lays Light) and more hedonic/unhealthy (Lays nature) products and it leads to increased size choice.

We did not include the financial prime as we believe that supersized pricing itself primes the financial goals of consumers and results in enhanced value for individuals' spending. Moreover, this study also validated our previous findings regarding the shift in health importance perceptions triggering these effects, as the supersized pricing does not result in enhanced size choice of unhealthy food options especially when health is salient. Although, the health prime does not discourage people from choosing the larger size option of Lays Light (perceived healthy). We got the evidence from the current study that the health priming have the tendency to reverse the impact of supersized pricing especially for unhealthy foods and may also expedite the choice of all the healthy food options such as fruits, carrots, etc, along with product types which are less hedonic and are perceived relatively healthy(low fat, low calorie, etc).

The evidence is also in line with the theory: which states that consumers' focus on health diminishes with the unhealthy food option having supersized pricing, especially in the absence of any health cue or nutritional label. On the other hand, VBJ rises due to supersized pricing irrespective of any health prime or food type, except for unhealthy foods with a health prime. Moreover, we also found that consumers' anticipated consumption guilt decreases with supersized pricing, which mediates the relationship between supersized pricing and size choice. This is especially the case for unhealthy and more hedonic food options, but not for less hedonic food products such as low fat or low-calorie items. The consumers do not anticipate consumption guilt in case of such products except for the health prime.

# 2 – Discussion of Results

The findings from all five studies validate the relationship between supersized pricing and package size choice for the foods either to be consumed immediately or later. In both the cases, when consumers realize that they can get better value by paying some extra money, they preferred to go big by consuming the whole food portion in one go or by just buying the food and take it home for later consumption. These findings are in accordance with Haws and Winterich (2013) who also stated that nonlinear pricing compared to linear pricing influences consumers' size choice decision and in the process, consumers prefer to choose the more substantial size among the available options. Haws and Winterich (2013) did not examine this relationship in delayed consumption context nor did they consider their conceptual model in any other cultural context/country other than US. We extended their conceptual model by examining it into two more countries; a developing country (Pakistan) and a developed one (France).

Supersized pricing strategy also makes consumers buy the larger package sizes in case of delayed consumption context. Although our findings suggest that the supersizing effects do exist in both the immediate and delayed consumption context but they emerged to be stronger in delayed consumption context as consumers are often more willing to buy supersized packs, intending to take the food home and consume it later on multiple occasions.

To further explain the mechanism behind supersized pricing and size choice, we also measured health importance and value-based justification as our potential mediators which were significant across all the studies, except study 4, as the shift in health importance did not occur in case of delayed consumption context. Our findings suggest that in situations where consumers have to choose among various goals, they prefer to choose one goal over the other, as their emotions often override their cognition(Shiv & Fedorikhin, 1999). We found that prominent goal in the environment, dominated the individual's decision (for reference, e.g. Ariely & Levav, 2000; Fishbach, Friedman, & Kruglanski, 2003; Mukhopadhyay, Sengupta, & Ramanathan, 2008; Shah & Kruglanski, 2003), and in context of current study supersized pricing already had that influence of making value goal more prominent. This happens through a shielding process which limits a

person's reach to other competing goals (Shah et al., 2002) and consumers' preference for short term desires also override the long term behaviors (Carlson, Meloy, & Miller, 2012; Zhang, Winterich, & Mittal, 2010). It was also validated by Haws and Winterich (2013), who also stated that nonlinear pricing provides consumers with value-based justification which primes the value goals of consumers at the cost of a rather less prominent health goal, encouraging the consumer to choose larger container among the other options. This conflict between health and value goal in the presence of supersized pricing caused health goal to diminish. This mechanism behind the conflicting goals is supported by the goal conflict theory stating that consumers often come across conflicts in terms of goals especially in case of pleasure vs health goal, and the goal which is made more salient in the environment dominates (Stroebe 2008).

In study 2, we used health cues in the form of nutritional labels to override the impact of supersized pricing on size choice and found it to be beneficial because the nutritional labels have the tendency to affect the food choices and help consumers improve their food choices and better able to self-regulate (Trudel & Murray, 2011, 2013). These findings are also in accordance with Cornil & Chandon, (2016), who used the nutritional label and multi-sensory imageries to influence consumers' decision to choose among different portions. Their findings also validated the fact that nutritional labels having information related to calories and fat encourage consumers to opt for smaller portions of food. Although, literature suggests that nutrient-based nutritional labels are slightly less effective compared to traffic lights, however, our slight modification in the labels (information per portion vs serving) made nutritional labels more effective and easier to comprehend for consumers. These minor changes in the information transferred to consumers can have a substantial effect to increase awareness and make consumers informed about making better food choices (Thaler & Sunstein, 2008; Thorndike et al., 2012).

Hence, participants in nutritional label condition formed their informational belief (Fishbein & Ajzen, 1975), based on the credence attribute of healthiness as per information offered by the label, and in the process, their health goal activated which caused their value goal to diminish. This notion is further explained by Visschers, Hess, & Siegrist, (2010) stating, once consumers' health goal is activated, they also focus more on the national labels compared to those whose health goals are not active. Moreover, the external influence in the form of the nutritional label made one goal more striking than another(health vs. value), which consequently resulted in more efforts for the

attainment of the focal goal, this is in agreement with Shah et al., (2002). Hence, nutritional labels reduced supersizing influence through enhanced health importance, which attenuated consumers' aptitude to justify their more substantial indulgent size choice.

To our surprise, this shift in health importance did not occur in case of delayed consumption context, and health importance resulted in being insignificant mediator, whereas, the value-based justification was a significant mediator between supersized pricing and size choice. It illustrates our distinctiveness of health focus, especially in the context of immediate consumption. This finding further explains that consumers underscore their health importance in delayed consumption context and are myopic about the impact of supersized pricing and its potential negative consequences on their health and well-being. Moreover, the use of nutritional labels is also not that effective in this case even when provided with the information about the whole pack or portion. Although there is not much literature which may explain such consumption behavior, however there is a possibility that consumers perceive that they are not going to eat the whole bunch of pack on single occasion and hence the nutritional label which gives information about the entire package becomes ineffective. Possibly, consumers might calculate the nutrient-based information based on the quantity they will eat from that whole pack in various consumption occasions.

Over the years, researchers have given much attention to food consumption studies in immediate consumption context, as the food is consumed on the spot and its convenient and more applicable to measure the consumption quantity, but we should not ignore the fact that the consequences resulting from consumption of food at home are also relevant, as most of the food consumption happens to be at homes.

Even though we did not measure the actual consumption quantity in case of delayed consumption context, however, the existing research on behavioral science depicts that the cost that incurs in acquiring and replacing the products purchased for later use also influences consumption quantity (Folkes, Martin, and Gupta 1993; Wansink 1996). Chandon and Wansink(2002) also added to those findings by further studying the role of food salience and convenience which also causes the consumption quantity to increase for such products, as consumers stockpile the products at their home to take advantage of promotional offers, as such offers are following their value goal. However, as per the analysis of scanner data, the consumption rates vary across products, which is

the function of two factors such as consumption incidence and consumption volume. The research has demonstrated that the stockpiling of products that result from promotional offers affects the rate of consumption for some products but not all (Ailawadi and Neslin 1998; Bell, Chiang, and Padmanabhan 1999; Nijs et al. 2001). Such mixed findings require researchers to go for experimental research to examine the cause and effect association between variables such as consumption quantity and stockpiling to examine the mediating and moderating effects (Ailawadi and Neslin 1998).

Extant research suggests that the salience of hedonic products entice consumers to portray themselves consuming such food products, which triggers consumption related desires (Hoch and Loewenstein 1991; Rook 1987) and self-rationing strategies (Wertenbroch 1998), as there are many such consumption occasions which are not often planned or fully expected (Nunes 2000). Similarly, it will be relevant to say that the supersized food products also lead to stockpiling, which results in more salience and convenience for consumers; as a result, the rate of consumption might also increase owing to the enhanced consumption desires and unplanned use for later consumed food products. It also calls for future research to study the consumption quantity in delayed consumption context considering the impact of supersized pricing, food salience and consumption incidence (whether consumer should consume).

Moreover, we also found that supersized pricing not only enhances the size choice of consumers but also increases the consumption quantity. This is in agreement with the findings of Haws and Winterich (2013) who found supersized pricing to be a significant contributor to consumption quantity. However, unlike Haws and Winterich who found that health cue can decrease the impact of supersized pricing on consumption quantity; but in our case, the nutritional label did not moderate the impact of supersized pricing on consumption quantity. Although it was surprising, its explanation lies in the limitation of the nutritional labels, which usually helps consumers making better food choices but once a food has been chosen the rest depends upon the package size. This can be further explained following previous research about the effect of package size on consumption quantity, which generally predicts that larger package sizes lead to increased food consumption, thereby increasing caloric intake (Ello-Martin, Ledikwe, and Rolls, 2005). For instance, Rolls et al. (2004) found that when the size of pack increases, consumers consume

significantly more potato chips. Wansink (1996) also found people using more oil and spaghetti from a larger pack.

Moreover, Rolls, Morris, and Roe (2002) came up with the findings that when consumers were made to eat from two different portion sizes i.e. (500 vs 1000 gram), they ended up consuming 30% more energy from the more substantial portion. Similarly, according to a meta-analysis performed by Zlatevska et al. 2014, consumption quantity increases by 35% with an increase in portion sizes, but with extremely large packages this effect diminishes. Therefore, once a specific size of the product is bought, then consumers rely on the size of container as a signal of appropriate consumption.

Department of Health and Human Services (2007) urge consumers to be aware of large packages because it is believed that the larger the pack, the more will be mindless consumption. For example, when consumers choose the chips from a larger container/package compared to smaller ones, they assume the standard portion of chips to be higher (Burger, Kern, and Coleman 2007). Based on such consequences various companies in the food industry have started to offer single-serving sizes which are introduced even smaller by the companies such as Ha¨agen-Dazs and Ben and Jerry's ice cream; Pringles and Lay's chips, cookies (Filipinos, LU), and candy (Cadbury, KitKat, Twix). Even McDonald's new initiative with the name "Eat Smart, Be Active" in 2004 was also in the pursuit of the same objective. (do Vale, Pieters, & Zeelenberg 2008).

Although we did not measure why consumers eat more food from the larger packages, the literature suggests that the most probable reasons are consumers' biased size perception and underestimation of actual size, visual bias and shape effects. Chandon and Wansink (2007b), suggest that the increase in meal size causes consumers to underestimate the actual size of the meal. Similarly, research also found that consumers underestimate the object's size changes and their perception about the size are rather inelastic (Krishna, 2006; Raghubir and Krishna, 1999), and this tendency of underestimating the object size intensifies when the container is modified in multiple dimensions rather than one dimension (Chandon and Ordabayeva, 2009).

We did not hypothesize about the impact of supersized pricing on food waste, but we analyzed and found supersized to be an insignificant predictor of foo waste; instead, it was the package size, that resulted in food waste. This needs to be studied further as we now that the supersized pricing

resulted in more consumption quantity then why package size is responsible for food waste but not supersized pricing? We did not find any relevant literature about the impact of pricing on food waste either. However, it is certain that consumers are leaned to underrate the increased food in larger packages(Chandon & Ordabayeva, 2009), which are highly associated with more food waste (e.g., Wilson, Rickard, Saputo, & Ho, 2017).

Although our findings also suggest that consumers consume more food from the larger package size, but at the same time the effect of larger package size diminishes (Zlatevska et al. 2014), as a result consumers continue consuming the food from the larger pack up to a point when they start feeling satiated. Once they reach their satiation, they stop consuming the food, and hence it gets wasted. This can be a probable reason that supersized pricing can only make consumers buy large, but there can be many other factors that might cause them to either overconsume or waste food, which requires further investigation.

In study 5, we found a three-way interaction between supersized pricing, health goal prime and product type (perceived unhealthy vs. healthy). Findings suggest that when the food is perceived as unhealthy, the health cue (health prime) attenuated the impact of supersized pricing whereas it does not moderate the influence of supersized pricing in case of healthy perceived, less hedonic product. Our findings are in accord with Haws and Winterch (2013) who also found a similar three-way interaction effect on the size choice decisions of consumers. Our findings add more to their results specially by the inclusion of products having different healthiness perceptions based on its nutritional claim unlike the other vice and virtue products such as chocolates and carrots. Although the previous study suggested that product like carrots can be considered among those whose overconsumption does not result in any negative health consequences, however in our case it's not the same as overconsumption of product which is perceived as healthy due to its low-fat nutritional claim can also result in negative health consequences. According to Burros (2004), we cannot deny that fat contains a more significant number of calories/grams compared to proteins or carbohydrates, but low-fat foods usually compensate that decrease in fat by the increase of carbohydrates. Hence foods with a low-fat label do not contain lesser calories per serving on average in real sense compared to food without such label (National Institutes of Health 2004). For instance, Nabisco's low-fat Snackwell cookies contain less fat apparently, but the number of calories is not fewer than its regular cookies, because its the fat content is replaced with sugars and

starches, having higher calories (Wansink and Chandon 2006). In study 5 we did not include the nutritional label manipulation like Wansink, and Chandon (2006) did to reduce the impact of low-fat labels on overconsumption of calories. It will be interesting to observe those effects in the future study, as providing calorie information for both the regular and low-fat lays may reduce the healthiness perception of Lays Light and which might influence the overall findings.

Haws and Witerch (2013) suggested that health importance does not mediate the relationship between supersized pricing and size choice in case of healthy food types such as carrot, regardless of health cue. They did not give much explanation about this finding, apart from health prime being a redundant cue for a healthy product like carrots. Unlike their conclusions, we found health importance to be a significant mediator for supersized pricing and size choice regardless of goal prime for our less hedonic product (Lays light); suggesting that consumers naturally give reasonable importance to their health, and the health prime substantially increased it.

Lastly, we found that the impact of supersized pricing was also partially mediated by consumption guilt on size choice as supersized pricing provided consumers with the justification to mitigate the consumption guilt resulting in more extensive size choice not only for less hedonic and healthy perceived products but also for the more hedonic and unhealthy products. The consumers often anticipate guilt from the consumption of more hedonic products, and hence they are always in search for a reason to justify their choices to mitigate it. Moreover, consumers who are predisposed to guilt look for more reasons to justify their choice (Mishra 2011). One of the common justification for the desired but needless product purchase is paying partially for the product. Supporting this notion, Zheng & Kivetz (2009) exhibited that sales promotions boost the purchase probability of hedonic products but with a modest impact on utilitarian products. Similarly, Choi et al. (2014) explored that the odd ending pricing also provides justification for the purchase of hedonic products which reduces the associated anticipated guilt and enhances the likelihood of purchase and consumption. In all these instances, the guilt associated with the consumption of hedonic product is mitigated by the justification provided by the promotional offer. This notion also supports our findings where consumption guilt related to the choice of hedonic product reduced in the presence of supersized pricing, and this reduction partially mediated an increase in size choice decision;

unlike the findings of Choi et al. (2014) where a full mediation of anticipated guilt was observed between odd ending pricing and purchase likelihood when consumers had a hedonic motive.

In our case, consumers may have the pleasure of consuming more food and at the same time enjoy the financial saving. Hence the impact of supersized pricing on size choice becomes even stronger due to the significant interaction effect of pricing and product type., resulting in partial mediation of consumption guilt. Another reason may be the role of less hedonic products, as the consumers do not anticipate guilt for less hedonic or virtue products (Mishra 2014), and hence they did not seek any justification for their choice. Similarly, Chandon and Wansink (2006) also support that notion, that the low-fat products reduces the anticipated consumption guilt and enhances consumption pleasure and volume.

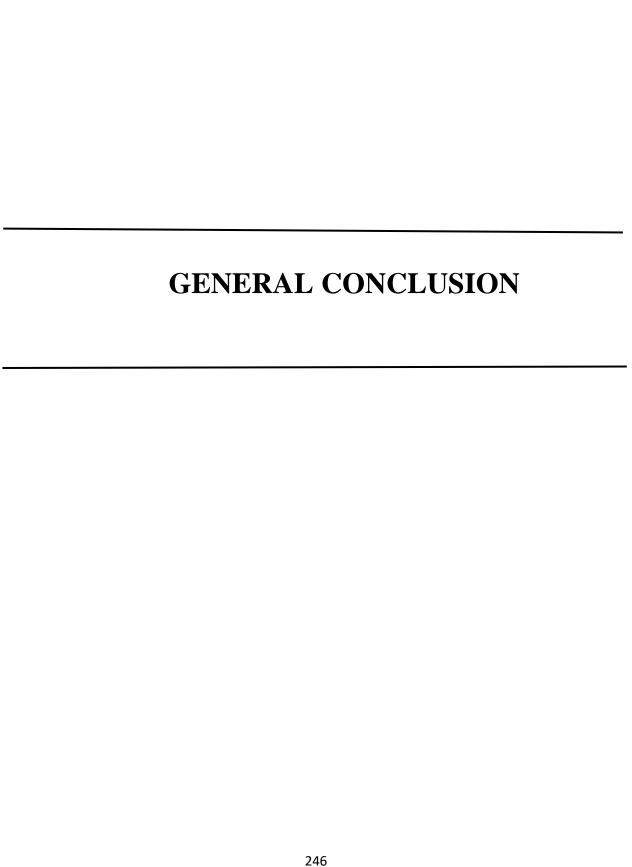
Although, we observed that the anticipation of consumption guilt was more in case of larger sized foods. However, we did not examine the boundary effect, as consumers experience the feelings of guilts in various domains such as health-related guilt due to the indulgence of high calories (overconsumption) or due to financial constraints (money concerns) or they may be of the opinion that the larger sizes lead them to more food waste. Though, supersized pricing should not decrease anticipated consumption guilt when consumers are not concerned about saving the money. This guilt and justification type should be of same domain for supersized pricing effects to be relevant. We propose that the justification received through supersized pricing decreases the guilt associated with the purchase of hedonic foods when consumers are concerned about finances and not health specially for hedonic food. This requires further research to better understand the supersized pricing justification effect for guilt mitigation of hedonic consumption.

### SUMMARY FOR CHAPTER VI

This chapter discussed all 5 studies conducted for validating our hypothesis, including the pre-tests for validating the manipulations. This chapter demonstrated the pricing and health primes manipulations along with the use of a nutritional label. It discussed the overall procedure for data collection from the chosen sample along with use of the instrument and the analysis of data using various statistical tools for all 5 studies.

Overall the results across all the studies stated that supersized pricing compared to linear pricing encourages consumers to upsize their food or drink. In the process, consumers decrease the importance placed on their health, as they get enough justification through the financial saving provided via nonlinear pricing. However, health importance does not mediate the relationship between pricing and size choice for the products which are to be consumed later. Moreover, supersized pricing also decreases the anticipated consumption guilt which mediated the relationship between pricing and size choice. We also found that consumers' health goal can be made more prominent with the help of health cues either in the form of nutritional labels or through nonconscious goal prime; however, these health cues were only effective in case of immediately consumed food products but not in delayed context. Finally, we also found that supersized pricing also enhances the size choice in case of products that possess nutritional claims such as low fat and hence perceived as healthy.

Moreover, this chapter also compared the current findings from the study with the previous research to show its contribution to the theory and literature and also to suggest some managerial and public policy implications along with limitations and future research direction to be discussed in the next section.



# 1. THEORETICAL CONTRIBUTIONS

Usually, consumers need to exhibit control in their eating and spending decisions to evade undesirable health and financial consequences. Therefore, we examine a significant area of goal interactions in which consumers get on with one goal (i.e., financial value) by leaving off another goal (i.e., health importance). Hence, consumers perceive that they are proceeding on their goals, although they are advancing on one goal and receding on another (Vancouver, Weinhardt, & Schmidt, 2010). Our theoretical background apprehends the complex issues arising from the interaction of financial and health goals, bearing in mind the numerous aspects of the decisions integral to spending and eating domains. Perse, we bring insights into the consumer decision-making process of immediately and later consumable foods under the influence of supersized pricing.

Whereas supersized pricing would influence size choice in an array of product classifications, we examine the unique interplay of financial and health goals in immediately consumable foods that have significant practical and theoretical implications. Explicitly, we propose new theoretical insights in the context of several goals by revealing the change in health goal when confronting the two uneven and discrete goals. Mainly, the subsequent impact of these unbalanced goals is the inclination to opt indulgent goal when faced with conflicting standards (Baumeister et al., 1994), as our findings exhibit. These findings show support for the goal conflict theory, which states that consumers often encounter conflicts when they come across more than one goal at one time, and hence they get on with one goal at the cost of the other (Stroebe 2008). In this framework, we investigate the goal interaction across domains and contribute to the prior work in the context of supersized pricing. Our work also adds value to the goal conflict model by including two uneven and distinct goals in the form of health and value. We provide insights into the process which increases the purchasing quantity through supersized pricing, particularly in focus with foods consumed immediately and also shed some light on delayed consumption context in this regard.

We propose that supersized pricing not only affect the financial goals by increasing the valuebased justification, it also decreases the importance of health, which is an unrelated goal for immediately consumed products. However, this mechanism varies a bit in case of delayed consumption, per se, supersized pricing does affect financial goals of consumers by enhancing the value-based justification; however, it does not influence health goal as the shift in health importance does not occur.

The findings suggest that financial goal is determined through the pricing mechanism, with an orientation towards value emerging in the supersized pricing as opposed to a financial goal to minimalize total spending. We think that it is a significant contribution to prior literature: fundamentally, a convenient marketing tool (price mechanism) produces swings in the financial goal in a way that is relevant to the thrift prime.

Our research also contributes to the literature on nutritional labeling. Although the front of pack nutritional labels has been used extensively in the marketing research, it has not been used in the form of a health cue for priming the conflicting goals in the context of supersized pricing. We used nutritional labels to override the impact of supersized pricing on size choice and found it to be very effective because the nutritional labels have the tendency to affect the consumers' decisions and it helps them improve food choices and better able to self-regulate (Trudel & Murray, 2011, 2013). Although Cornil & Chandon, (2016), used nutritional label along with multi-sensory imageries to influence consumers' decision to choose among different portions and found that participants choose the smaller portions of food compared to control condition however, they did not examine its effectiveness in the presence of nonlinear price for their different portion size options. Hence our findings add value to the previous literature by stating that use of front of pack nutritional labels having per portion nutritional information can be most effective even if the consumers have justification through price to indulge.

Although we did not hypothesize about the role of food waste, however, this dissertation also contributes slightly to the food waste literature. As we examined the role of supersized pricing in the context of Food waste and found that it's not the supersized pricing that causes food waste, rather its the larger package sizes which result in food waste as well as overconsumption.

We also included the interaction of pricing, product type, and nonconscious goal prime to measure the impact of supersized pricing on size choice, in which we used the less hedonic product having slightly different healthiness perception due to the presence of nutritional claim. This has extended the findings of Haws and Winterich (2013), who examined the role of

supersized pricing on the size choice of unhealthy and healthy food (Carrots) in case of only immediate consumption context. This means that supersized pricing is not only useful in increasing the consumption of unhealthy and healthy meals but also for foods that are less hedonic and are relatively perceived healthy(i.e. low fat, low calorie, zero sugar, etc.) than regular/more hedonic food options.

Moreover, our work adds to the existing literature on the role of guilt in consumption (Kivetz & Simonson, 2002b; Mukhopadhyay & Johar, 2007). Whilst the preceding work posited about the probable role of helping, cause, promotions, price discount and odd ending pricing in guilt-reduction (Khan & Dhar, 2006; Strahilevitz & Myers, 1998; Mishra and Mishra 2011, Rugar et al 2015; Choi et al 2014), we bring new insights by showing that the guilt associated with hedonic consumption alleviate through supersized pricing, which drives consumers' preference among different package size options of foods, about which consumers possess different healthiness perception. Moreover, this dissertation also adds to the literature of anticipation consumption guilt in the context of supersized pricing and multiple package sizes by stating that consumers associate more anticipated consumption guilt with increasing package size.

This dissertation contributes to the growing literature of transformative consumer research by focusing on the role of supersized pricing in terms food consumption decisions having a significant influence on consumer health, primarily due to the overconsumption of hedonic foods from the upsized food options, which are not suitable for consumers' health. Moreover, these supersized products also result in food waste which is one of the most significant issues faced by the world today as 1.3 billion tons of food is wasted every year (Food and Agriculture Organization 2018), of which 36 million tonnes (40%) of food is wasted in Pakistan annually.

### 2. METHODOLOGICAL CONTRIBUTIONS

One of the significant methodological contributions of this research is the triangulation of qualitative methods during our qualitative study. Triangulation refers to the use of multiple methods to develop a comprehensive understanding of the phenomena (Patton, 1999). It also enables the researcher to validate the study by converging the information from different sources. Mostly the articles published on food and overconsumption are based on quantitative methods, especially experimentation, whereas qualitative articles are somewhat rare, and those who are published usually have in-depth interviews as methodology. We contribute with regards to the methodology by using multiple projective techniques comprising storytelling, construction, and association techniques along with in-depth interviews. We used photos of various purchase situations in real retail settings to make sure that respondents can easily relate themselves with the persons in pictures. Triangulation helped us not only increasing the confidence in the data and creating innovative ways of understanding the notion of supersized packaging and its consequences but also revealed unique findings by challenging or integrating theories.

The use of experimentation has continued to flourish, and it has taken an important place in consumer behavior research as its one of the most used methods today. In marketing, and more specifically in consumer behavior, the use of experimentation as an empirical method has become a norm rather than the exception (see, eg Rapp and Hill, 2015). Conducting research with experimental methodology is an extensive task, where the researcher needs to take care of every slight thing to avoid any confound and be sure that everything is done with perfection. Right from study 1 to study 5, we chose multiple hedonic and less hedonic products and looked for their different package size options; we made sure that the package sizes and the quality of pictures we use for manipulation seem real. Moreover, for nutritional label manipulation studies, we first, examined the nutritional labels that exist in the market, checked for its effectiveness, and once we realized that the existing nutritional labels may not be effective, then we specially designed our own nutritional labels, we searched for the nutrient content information first on the real products based on our product category, then we designed nutritional labels that were quite similar to the one that existed in the market. What we did differently from the previously done nutritional label manipulations was to design an easy to comprehend and attractive nutritional labels for per serving and per portion information. We adjusted their color combination as per the color of the brand or product used to make it more realistic. Hence, another significant methodological contribution concerns the manipulation of the nutritional labels. We manipulated nutritional labels for study 1,2,3 and 4 to make the health goals of the participants more salient. Unlike other priming techniques where participants are usually asked to look at the screen and search for the words which may prime their goal (Chartrand et al. 2008; Laran and Janiszewski 2009), we have used real products and close to actual labels to examine its moderating influence. The nutritional labels showed the percentage of guided daily number of calories a person can take in a day, and also the number of calories the chosen product will add-in, after consumption through a pie chart. The addition of nutritional label gives the participants a comprehensive set of information about the product. Typically in previous studies, the researchers have used per serving information on their products, but we have added the per portion information which resulted in enhanced health goal for consumers.

Another methodological contribution was through the manipulation of a nutritional claim to measure its influence on the way consumers perceive it (relatively healthy) in one of our Lays products whom we refer as Lays light (33% low fat vs regular). We used two different product types to assess their impact on the influence of health prime on pricing and size choice. We included health cue along with the nutritional claim to measure its overall impact in presence of supersized on size choice decision, whereas Chandon and Wansink (2006) only used low-fat labels without pricing manipulation and nonconscious goal prime. We used nonconscious health prime also, in which a stick figure holding weight bars having apples on both ends were designed; we included this as a background of consumer decision making instructions to subliminally prime consumer health goal compared to neutral prime where pencil sharpeners were shown in the background of decision-making scenario in study 5.

# 3. MANAGERIAL AND PUBLIC POLICY

# **IMPLICATIONS**

It is crucial for marketers and policymakers to understand the consumers' decision-making process in a supersize pricing perspective. The profit and benefit from supersize pricing make it one of the most appealing pricing strategy for marketers (R. J. Khan & Jain, 2005; Subramaniam & Gal-Or, 2009), but how they can apply the supersized pricing without developing undesirable health consequences for consumers?

Additionally, we explained in study 5 that the effect of supersize pricing holds when offered for less hedonic foods or the foods that are relatively perceived as healthy. Hence, from this, it can be stated that the consumption of healthful foods such as fruits and vegetables can also be increased via supersized pricing. Namely, the marketers can enjoy the financial benefit by using supersized pricing mechanism for healthier foods; this is beneficial for society, marketers, and consumers correspondingly. Usually, it is a common practice among the marketers to introduce supersized food options with nonlinear pricing, especially in case of hedonic food products, whose overconsumption leads to adverse health consequences for consumers. Supersized pricing can be a win-win strategy for both producers and consumers if offered on healthy foods. It can encourage consumers to consume more healthy foods apart from the consumption of foods that are perceived as healthy due to the low fat or low-calorie label.

Marketers and Public policymakers should also pay attention towards the products that are purchased and consumed later considering the fact that the implications of those food products are also relevant, and the nutritional properties and quantity of those foods might also affect the health and wellbeing of consumers the same way like immediately consumed foods, if not more as buying more significant amount of food might increase food accessibility, food salience, and consumption frequency.

Generally, to understand the implications of consumers' decisions, it is essential to consider carefully the size of the products offered (large and small) and their pricing structure (Jain, 2012; Sharpe, Staelin, & Huber, 2008). Additionally, the nutritional labels and health primes on the immediately consumable products play an essential role in diminishing the consumers' decision

to purchase unhealthy upsized snacks. Hence, marketers should consider the nutritional labels, environmental clues, and product adjacencies carefully because of their significant impact on the pricing mechanisms they are going to opt (linear or non-linear). Providing complete nutritional information related to the whole package size rather than only serving related information can help consumers make informed consumption decisions. Accordingly, the consumption of an individual can also be influenced by health perceptions of a restaurant (Chandon & Wansink, 2007), product-specific claims, product category, brand, retailer, and restaurant, all might impact the health perceptions of consumers (or work as health cues), which might influence the effect of supersized pricing on the consumption and size choice.

For policymakers, it is weighty to acknowledge that though consumers perceive to get the financial value by purchasing supersized products, which may have given them 73 percent more calories for only 17% of saving in the form of financial value (Close & Schoeller, 2006). Consequently, penny increased in a wallet is much less notable than a pound increased on the waistline. The "French Paradox" explains that health should be improved by going beyond the type of food to consumption quantity, which is consistent with our research. Namely, consumers could consume indulgent foods, as French people are supposed to do; however, they should avoid excessive gains by consuming a small portion (Wansink et al., 2007). Simply put, lessening the portion size is the best strategy if consumers keep on eating unhealthy foods, as we explain that the effect of supersized pricing on purchase size carries over to increased consumption.

From a public policy perspective, it's also essential to design effective front of pack nutritional labels that are easy to comprehend, and that may help consumers make informed food choices. As shown in study 2 and 3, the nutritional label providing information for the whole portion in the immediate consumption context override the effects of supersized pricing. Therefore, it is crucial to modify the existing nutritional labels which provide information related to serving size; as a result consumer misperceive per serving vs per portion based nutritional information.

Moreover, although we did not explicitly measure the consumption quantity in case of low fat labeled products; but from our previous findings of study 3 it can be stated that the upsized pack of low fat labeled lays light may also lead to increased consumption quantity and hence this

research also has valuable suggestions for accountable food producers. The agencies such as FDA have proper guidelines regarding the nutritional claims and labels, which assures its accuracy and have the higher trust of people on the nutritional information. Yet the labels like low fat result in health halos because consumers perceive the healthiness of product based on just a single ingredient and hence feel licensed to increase their snack food consumption by 50% in a single consumption occasion regardless of consumers type (young vs old), consumption setting (private vs public) and whether or not people are self-serving or served by others (Chandon and Wasnink 2006); especially, the normal-weight consumers enhance their consumption believing the low-fat label foods to be relatively healthier. This demonstrates that these truthful claims and labels are not enough to transform the eating behavior of people, as the impact of nutritional information is overshadowed by nutritional claims such as low-fat, low carbs, reduced-calorie, or zero sugar.

One solution is to provide the calories and serving size related information for the whole pack and making it more salient in front of the box of the packaged foods, as their serving size labels are rarely checked. The front of pack label is more salient to consumers compared to the back of pack nutritional information label (Wansink, Sonka, and Hasler 2004). Moreover, the enhanced salience of serving sizes would be even more beneficial for a fast-food industry where such nutritional claims are prevalent and may predominantly be deceptive as dietary labels are not obligatory in this case (Chandon and Wansink 2006).

Manufacturers could ponder more on being clear while mentioning more information for consumers while defining something like low fat. This can be done by mentioning the reduced percentage compared to the regular version, along with total calories per container. Since consumers have the tendency to deduce about the appropriate serving from a variety of external cues, and hence the producer could assist their consumers in controlling their food intake by making changes into their packaging, which may help them altering perception regarding the appropriate serving size. One possible way of doing it is to come up with such low fat or low-calorie food products in the form of multipacks having smaller individual servings, which may be offered with supersized pricing to encourage consumers to opt for a relatively healthy option. As such, sub packaging would result in breakpoints and make consumers reassess whether to continue eating or stop. Another option is to come up with smaller but premium-priced packs,

although this pricing would be competitive per unit relative to larger packages, but they might satisfy the person who is willing to trade-off value for self-control (Wertenbroch 1998) and pay premium to eat less and enjoy more in single occasion (Zaff 2004). Although this may incur more cost on packaging but considering the growth in the diet food industry such a segment could be lucrative. For instance, according to a study around 57% consumers would be willing to pay up to 15% more for the portion-controlled packaging (Wansink and Huckabee 2005).

Moreover, it also crucial for marketers to know about the link between physical attributes of products and the benefits and values to bring the desired qualities of the product in research and development. Understanding the kind of product characteristics employed by consumers to imply desired consequences allow marketers to better design their products (Gutman 1982). Especially, when it's pretty evident that attributes like pricing and packaging influence the consumption quantity of consumers; marketers and public policymakers can focus on these attributes along with better-designed labels to bring positive consequences for consumers by encouraging them to consume in moderation. The article published in the Guardian by Zoe Wood (2018) states that coca-cola in Scotland has started to sell smaller bottles at elevated prices, owing to the tax imposed on sugar. Steps like this might bring desired consequences for consumers.

Jain (2012) demonstrated that smaller package sizes increase wellbeing for both consumers and society, as they help consumers combat their self-control problems; however, they also enhance the consumption of vice foods. Moreover, the smaller packages can also bring profit to the firms in situations where smaller portion of consumers have overconsumption issue and also while attracting new customers.

Moreover, our research findings also have implications for consumer wellbeing. Though such pricing techniques can be effective for stimulating the consumption of hedonic foods, they can also be detrimental to consumer well-being in the long run. Indulgent consumption in the form of overeating and binge drinking is not only bad for consumers' physical health but also their financial health (Baumeister 2002). Whenever consumers find ways to justify such indulgent food choices, they are more inclined to engage themselves in risky behaviors (Kivetz and Simonson 2002). Nevertheless, our findings suggest that making consumers aware of the

nutritional ingredients in their preferred quantity option or using any health cue in the environment can reduce the justification effect of supersized pricing. From the perspective of public policy, we hence propose a possible remedy in the form of health cues to enhance the awareness and nudge the behavior of consumers to counter the impact of supersized pricing on overconsumption. In the face of a nascent obesity epidemic and food waste, our findings can support in designing education programs which might increase the welfare of consumers (Soman and Cheema 2011).

# 4. LIMITATIONS, FUTURE RESEARCH RECOMMENDATIONS, AND CONCLUSIONS

### 4.1. Limitations

This research adds to supersized pricing, nutritional labels, and consumption guilt literature. However, there are some limitations also.

We investigated the impact of supersized pricing on size choice and consumption quantity in laboratory settings where the environment is controlled, however, we did not collect the data in a more natural or real settings such as restaurants, supermarkets or convenience stores. Consumer decisions might differ a bit when it comes to such realistic environments.

We measured the impact of supersized pricing in the delayed consumption context as we believe it is also an important food choice and consumption quantity decision like immediate consumption context; however, we believe the sample for that study was not large enough, nor did we collect the data from French participants. Moreover, we did not measure the consumption quantity in delayed context, whose implications are very much relevant and consumers often buy the supersized food options to benefit from different offers and stockpile them at their homes for later consumption; hence future research should measure consumption quantity for products that are purchased for later use.

The same supersizing context could also have been studied for deals or menu options in the restaurant setting, as consumers love to eat out with friends and get benefit from the value deals offered for the group. We only focused on individual consumption considering it to be the most critical for an individual's health. However, the overconsumption of food also occurs when value deals are ordered by a group of friends, and social facilitation results in even more consumption owing to collaboration. Therefore, future research may also focus on collaborative consumption in the context of value deals that are often offered in various restaurants of Pakistan comprising KFC, McDonald's, etc. due to its collectivist culture.

Although this research was conducted to understand consumers' decision-making process while purchasing the supersized food option, we conducted sufficient data for both the qualitative and quantitative studies. But we only collected data from students, which is one of the limitations of this dissertation; hence, the findings can be further authenticated and generalized by collecting the data from a non-student sample, while controlling for the demographic and geographic characteristics in future research.

Lastly, although the role of gender was not the objective of our research; however, we found it plays a significant role in the case of consumption quantity. Preceding literature suggests that gender influence the food choices and consumption quantity decisions of consumers. Hence considering this limitation, we can include role of gender for the future study in case of consumers' size choice decisions.

#### 4.2. Future Research Recommendations

The conceptual framework of the study, that goal interactions (financial and health goals) and innate trade-offs confronted across and within the eating and spending domains can be studied further in the future. Forthcoming studies should inspect the additional marketing maneuvers and environmental prompts, which may be able to foretell which of the numerous goals become pivotal at a given moment, how environmental stimuli can amend the importance of the underlying goal, and which goal might be facilitated by the marketing cue. For example, which other factors are leading to value-based financial goals versus the financial goals to minimize spending?

Additionally, the ambiguity, vividness, and concreteness are the factors where financial and health goals differ, to what extent the goal importance is affected by these factors and which lead to a more focal goal. An additional question of interest is how the food choice (healthy and unhealthy), is affected by the supersize pricing. Is the value-based justification of supersize pricing sufficiently convincing to swing the consumers from buying carrots to the large pack of chips on deal? The managers in charge of pricing decisions can benefit significantly from the implications of this research.

Nevertheless, we propose that size choice is affected by supersized pricing because of trade-offs of health and financial goals, but it is also feasible that licensing effects are the cause of these results (U. Khan & Dhar, 2006; Wilcox, Vallen, Block, & Fitzsimons, 2009), for instance,

consumers may feel licensed to decrease the restraint because of achieving the value goal, even in unrelated decisions. Forthcoming research can also study either the decline in the importance of health also leads to subsequent health-related choices that are not in effect of supersized pricing or the deal on an unhealthy product still license the decreased focus on health.

Though we have not explicitly examined in this dissertation, It is significant for marketers to contemplate if consumers might learn about the disadvantageous effect of supersized pricing on their health goals, by demonstrating the impact of learning over time. Possibly, consumers are less prone to the impact of supersized pricing on the regular products (i.e., morning coffee) where learning effects might have incurred, than irregular products (i.e., an ice-cream). We foresee this as an avenue for future research.

Moreover, different pricing mechanisms and their examination about the inceptions that characterize the changes in supersized pricing may propose significant insights for marketers. For instance, charging the same price for various sizes of the products [i.e., 99 cents for any size fountain soda] or a coupon for a free soda of any size). We think that these areas should be examined to gain future insights for marketers, but we still believe that these would not significantly change the finding of this research as consumers would still be justifying their temporarily declined focus towards health goal and opting the financial goal for greater value.

We have noticed in contemporary research that decisions related to size choice are not public, but still the value-based justification is found and discussed in results. It is thinkable that when these consumer decisions related to size choice are made public, the effects will become stronger to a greater extent, knowing the significance of value-based justification for hedonic purchases to own self, but also to others (U. Khan & Dhar, 2010; Okada, 2005). Hence, future research can also take into consideration the role of social visibility as a moderator, as consumers tend to behave and consume differently in a public, social and private setting (Dubois et al. 2012.). Moreover, we also found from our qualitative study that consumers' decision to choose among various size choice options is also influenced by the presence of others (McFerran et al 2010) through anchoring and adjustment, while others have explored that consumers have the tendency to mimic others in a consumption setting without any intention (Chartrand and Bargh 1999; Tanner et al. 2008). Hence it will be fascinating to study the impact of supersized pricing on size choice and consumption quantity by considering social influence as a moderator.

To some extent, all the individuals are cautious about health and money; the focus on the domains of consumption differ at an individual level. Hence, future studies can focus on the impact of individual differences in the importance of financial and health goals, the trade-off of value and health in the context of supersized pricing. Additionally, the supersized pricing effect can be moderated by self-control and chronic levels of eating, and are entitled to further exploration (Haws & Winterich, 2013). Relatedly, the consumers with a high level of self-control are more prone to opt easy-going option in the presence of a utilitarian option (Wilcox et al., 2009), signifying that sometimes they may want to reward their self-control by these choices. Hence the supersizing can smooth the rewarding behavior. Instead,(Fishbach et al., 2003) have explained that consumers who are strongly committed to goal (healthy consumption or dieting), when feeling the stimulus that menaces their goal, their confrontation towards the inducement automatically increases. Hence, forthcoming studies can study the consumers' commitment towards a goal, which apparently works as a moderator for supersized pricing contingent with the importance of health or financial goal and which one is strongly provoked by the supersized offer. Relatedly, (Redden & Haws, 2012) have explained that consumers with high self-control may increase the consumption of healthy foods when offered with supersized pricing. Lastly, the individual character of being more deal prone may heighten the influence of supersized pricing or decrease the impact health-related interventions.

In the current research, we have only used one type of nutritional label (Nutrient specific) that is commonly used in Pakistan; it will be interesting to see how effective the other types of nutrient specific nutritional labels are, such as traffic light signals. Moreover, future research can also study the role of summary indicators such as "sensible solution; healthy choice; Snack Wise; Smart choice, etc.", as these are commonly used labels in France on a variety of products to nudge and guide consumers in making decisions.

Rugar et al. (2015) stated that consumers having higher predispositions to guilt, give more priority to guilt alleviation opportunities and persons who score high on guilt-sensitivity are less likely to involve in hedonic consumption compared to individuals having less sensitivity to guilt (Haws & Poynor, 2008). Hence understanding the moderating role of predispositions to guilt or guilt sensitivity can be interesting for future research to extend our findings where guilt mediates the influence of supersized pricing on size choice. We measured the guilt associated with

different size choices; however, it will be interesting to assess post-purchase or post-consumption guilt because consumers experience some guilt while thinking about that consumption decision later (Hoch & Loewenstein, 1991). Although we did not measure the boundary conditions associated with the guilt, however, understanding whether the guilt was more related to money concerns or health concerns will also be relevant as suggested by Choi et al. (2014).

Finally, considering the implications as well as influence of supersized pricing strategy for the consumers of both developed and under developing countries, examining supersizing effects in countries other than Pakistan and France may be of interest to marketers.

#### 4.3. Conclusion

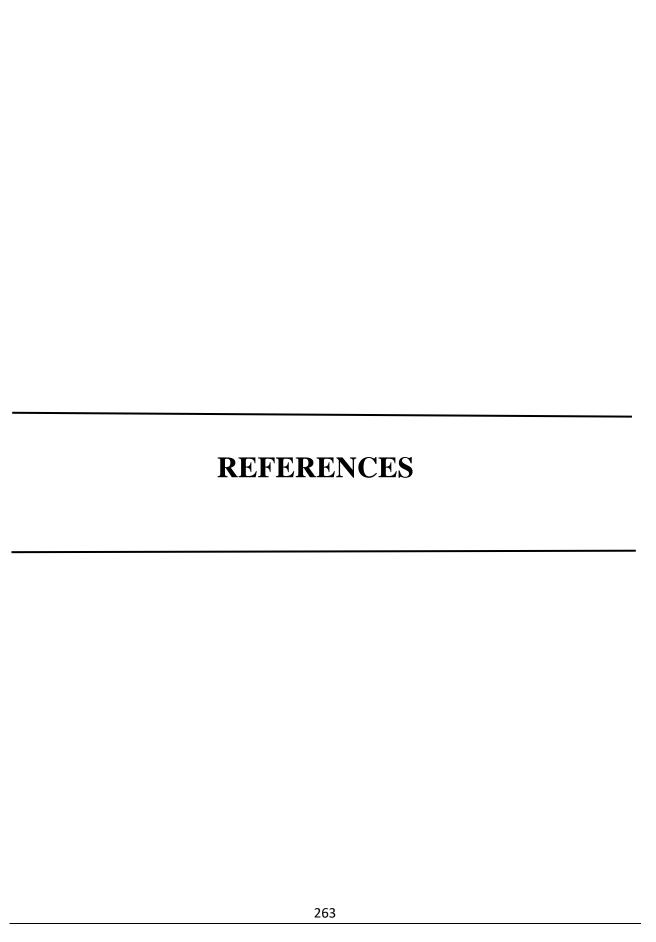
In conclusion, we propose that purchase and consumption quantity increase with supersized pricing because of the superior focus on financial value and inferior focus on health. Fortunately, it emerges that the influence of supersized pricing can be combated with health cue interferences, without health cues, consumers take value through supersized pricing and tend to justify their size choice by pursuing the financially striking options and unwittingly increasing the waistline. Eating healthy is the foundation stone for preventing diet-related diseases (Jebb 2007). Consumption of healthy food not only helps individuals' in improving health but also results in decreased health expenditures. Thus far, policymakers and marketers are not adequately aware of how consumers vary in their food choices. Enhancing our knowledge about how different groups of consumers make food choices is very crucial for designing food products that favor healthy nutrition and also in creating better social marketing campaigns to bring the desired change in consumers' behavior.

Pakistan is a food-loving nation where people spend more than 50% of their income on food products. Most of the people love to eat out not only in search of taste and pleasure but also to socialize with friends (Shabir and Cova 2019), In the process, they become myopic about their food choices, and they hardly pay attention to their consumption norms, food choices and consumption quantity; what they care the most is to eat food that brings more pleasure, more volume and value, resulting in bad food choices and overconsumption. The consequences of such

a myopic behavior towards food are reflected through the report of Lancet Medical Journal demonstrating the alarming figures of overweight and obsess people in the country

It is vital to get consumers out of food myopia by creating awareness about healthy food options and transforming their behavior from unhealthy to healthy food items and making them realize that consumption quantity decision is as essential as food choice decision and hence eating in moderation is the way to go. Doing so will help consumers achieve their health goals resulting in increased food well-being. This will be a win-win situation for both marketers and consumers. By saying so, we don't encourage consumers to strictly refrain from eating hedonic foods rather we just propose consumers to eat hedonic food options in moderation and also make themselves more inclined towards healthy food options. Although it's very challenging to fight obesity by encouraging consumers to opt for moderation of unhealthy food than abstinence as it is somewhat easy to resist the decision of consuming unhealthily than to stop oneself once the consumption has started.

Hence, apart from raising awareness among consumers regarding food choices and consumption quantity, it is also vital that marketers even downsize their package size options to help consumers achieve their moderate eating goals. Not only product downsizing will help in controlling the overconsumption of food, but also it will help in controlling food waste. To our surprise, the normal 5-star hotels in the capital city of Pakistan waste 870Kgs of food each year (Sarah and Khan, 2018), and 1.3 billion tons of food is wasted in the world annually, in which Pakistan contributes a significant 40%. These facts are alarming, considering the fact that Pakistan is ranked at 106<sup>th</sup>/119 countries as far as global hunger is concerned (Global hunger index 2017), and 43% of countries masses remain food insecure, and 18% face severe food shortage (Mughal, 2018). Therefore, nutritional education and awareness programs must be arranged for consumers as they lack the required knowledge in this regard, especially some courses related to food marketing and education must be included as part of the academic syllabus at the schools and colleges, which not only raise awareness about nutritional aspects of food but also discourage overconsumption and food waste to enhance the food well-being in general.



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# **List of Tables**

# **List of Tables**

- Table 01: the list of topics discussed across the five TCR conferences since 2009
- Table 02: Framework for Interaction Between Health and Financial Goals
- Table 03: Themes emerged from Projective techniques and Interviews
- Table 04: Frequency of mention and emerging themes via completion and construction method
- Table 05: Analysis of the data collected through the Personification technique
- Table 06: Manipulation Checks and Pretests
- Table 07: Summary of Size Choices by Price Condition for All Studies
- Table 08: Ordinal Logistic Regression Predicting Likelihood of Reporting size choice under supersized vs. linear condition (Study 01)
- Table 09: Mediating role of Health Importance
- Table 10: Logistic Regression Predicting Likelihood of Reporting size choice under supersized vs linear pricing condition (Study 02)
- Table 11: Mediating role of Health Importance
- Table 12: Mediating role of Value-based justification
- Table 13: Moderating role of NLC on PC and SC
- Table 14: Moderated Mediation of HI on SC at NLC
- Table 15: Moderated Mediation of VBJ on SC at NLC
- Table 16: Logistic Regression Predicting Likelihood of Reporting size choice under supersized vs linear pricing condition (Study 03)
- Table 17: ANOVA for Pricing and Consumption Quantity
- Table 18: Logistic Regression Predicting Likelihood of Reporting size choice under supersized vs linear pricing condition (Study 04)

- Table 19: Mediating role of HI
- Table 20: Moderated Mediation HI on SC at NLC
- Table 21: Mediating role of Value-based justification
- Table 22: Moderated Mediation VBJ on SC at NLC
- Table 23: Ordinal Logistic Regression Predicting Likelihood of Reporting size choice under supersized vs. linear condition (Study 5)
- Table 24: Impact of Price on Size choice mediated by HI and VBJ
- Table 25: Conditional Indirect effect of PC on SC at the values of the Health goal prime and product type in case of HI
- Table 26: Conditional Indirect effect of PC on SC at the values of the Health Goal Prime and product type in case of VBJ
- Table 27: Impact of Price on Size choice mediated by ACG
- Table 28: Conditional Indirect effect of PC on SC at the values of the Health Goal Prime and product type in case of ACG
- Table 29: How supersized pricing influence anticipated consumption guilt (means and standard deviation).

# **List of Figures**

# **List of Figures**

- Figure 1 General structure of the thesis
- Figure 02: Structure of the thesis- Part I
- Figure 03: TCR's relational engagement for social impact
- Figure 04: Conceptualising Food Myopia
- Figure 05: Synthesis of Qualitative study
- Figure 06: The general processes for the conceptual model development
- Figure 07: Conceptual Model for the Quantitative Study
- Figure 08: Structure of the thesis- Part II
- Figure 09: Inductive-Deductive Approach (adapted from Yves, Bernard, and Roux (1997).
- Figure 10: The wheel of scientific knowledge (adapted from Stelman, 2015 p.2)
- Figure 11: Evolution over time of the use of empirical methods in the JCR (adapted from Rapp and Hill, 2015, pp. 23 and 25)
- Figure 12: Direct effect of X on Y
- Figure 13: Effect of X on Y moderated by W
- Figure 14: Effect of X on Y mediated by M
- Figure 15: Effect of X on Y mediated by M
- Figure 16: Effect of X on Y mediated by M
- Figure 17: Impact of Supersized Pricing and Nutritional label on Health Importance
- Figure 18: Impact of Supersized Pricing and Nutritional label on Value-Based Justification
- Figure 19: Influence of Supersized pricing and NL on Food waste.

- Figure 20: Impact of Supersized Pricing, Goal Prime, and Product type on HI
- Figure 21: Impact of Supersized Pricing, Goal Prime, and Product type on VBJ
- Figure 22: Influence of Supersized Pricing, Goal Prime, and Product type on Anticipated Consumption Guilt

# **APPENDICES**

# **Appendix I: Interview Protocol**

#### Introduction

Hello, I am a Ph.D. candidate in the Marketing department of IAE Aix-Marseille university France. As a part of my Ph.D. study, I am conducting an interview on food choice and consumption quantity decisions of consumers. Through your participation, I eventually hope to better understand the phenomenon.

Our conversation is completely anonymous. There is no right or wrong answer to any question. You are totally free to give your answers. I would like to record our conversations, which would allow me not to take too many notes and better listen to your responses.

Thanks in advances for your participation

# Interview guide

## Warm-up

Could you please talk to me about yourself?

- Qualification
- Age
- -Gender

# Perceptions of food

- What comes to your mind when you think about food?
- What is the importance of food in your life?

# Purchase and consumption of supersized food

- -When was the last time your order an upsized food or drink?
- -Why did you order the larger pack of food or drink?
- -What other factors do you think can be responsible for making consumers upsize their food options?
- -What kind of consumers do you think prefer to buy supersized food?

# Post consumption experience

- -How did you feel after consuming the food from the larger pack?
- -Can you please take me through some of the consequences resulting from the purchase of a larger package of food or drink?

# Thanks, and wrap up.

# The stimulus used for completion and construction techniques









I love to buy large cup of coffee

**Appendix II: Questionnaire** 

Centre d'Etudes et de Recherche en Gestion

AIX Aix-Marseille Graduate School of Management Aix+Marseille Université

ASSOCIATION EQUI

Dear Participant,

Thank you in advance for participating in our survey. This is a Ph.D. dissertation survey to understand the role of supersized pricing on consumers' size choice decision.

You will be asked to complete a series of questions about your food purchase decisions and Your participation in this experiment is entirely voluntary and anonymous. All the information you provide in this experimental survey will remain completely confidential.

If you have any questions or concerns, you may get in touch with me.

Thank you so much for your participant!

IAE Aix Marseille Graduate School of Management.

Aix en Provence France

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#### **Experimental conditions and survey questions**

#### Study 01

Imagine that you are at McDonald's looking forward to order a Milkshake , which of the following flavours, would you like to order?







$\bigcirc$	Strawberry Milkshake
$\bigcirc$	Chocolate Milkshake
$\bigcirc$	Vanilla Milkshake

Note: Proceed to the section having your chosen Milkshake. And after that proceed to section 4

#### Section:1

Your preferred milkshake flavor is offered in three different sizes. Which of the following Milkshake sizes would you like to choose?

#### **Linear Price Condition**



#### **Supersize Price Condition**



(	Small
(	Medium
(	Large

#### Section:2

Your preferred milkshake flavor is offered in three different sizes. Which of the following Milkshake sizes would you like to choose?

#### **Linear Price Condition**



#### **Supersize Price Condition**



Small

Medium

J Wicaiaiii

Large

#### Section:3

Your preferred milkshake flavor is offered in three different sizes. Which of the following Milkshake sizes would you like to choose?

#### **Linear Price Condition**



#### **Supersize Price Condition**



Small Small

) Medium

) Large

SECTION 4:											
1. How much do you like this Milkshake?											
Not at all	1	2	3	4	(5)	6	Very much				
3. How important, each of the given attributes was to your purchase decision?											
A. Nutritional Properties											
Not at all important	1	2	3	4	5	6	Very Important				
B. Calories											
Not at all important	1	2	3	4	(5)	6	Very Important				
C. Health Concerns											
Not at all important	1	2	3	4	(5)	6	Very Important				
D. Type of Milkshake											
Not at all important	1	2	3	4	5	6	Very Important				
E. Convenience											
Not at all important	1	2	3	4	(5)	6	Very Important				
4. Based on the options y	ou saw e	earlier, ple	ease indic	ate whet	her the pri	ces wei	re				
the same per unit							Buying a larger				
for all Milkshake options	1	2	3	4	(5)	6	quantity of Milkshake cost less				
Space.							per unit				
05. Gender			-								
06. Qualification											
07. Age											

## THANK YOU SO MUCH FOR THE RESPONSE

309

# Study 02

Imagine that you are purchasing a soft drink,for your own consumption. Which of the following brands or flavours, would you like to buy?

Fanta
Sprite
Coca Cola

Note: Proceed to the section based on your chosen flavour/brand either 1,2 or 3 after that proceed to section 4

# Section:1 Linear Price Condition



## **Supersize Price Condition**

Size: 250 ml	Size: 500 ml
Price: Rs.25	Price: Rs.40
Oca Cela	Coca Cola

Imagine that Coca Cola is offered in two different sizes, which of the following sizes, would you like to buy?

$\overline{}$	)	250	m
	)	500	m

Section:2

#### **Linear Price Condition**

Size: 250 ml	Size: 500 ml
Price: Rs.25	Price: Rs.50
	Sprite

#### **Supersize Price Condition**

Size: 250 ml	Size: 500 ml
Price: Rs.25	Price: Rs.40
	Sprite

Imagine that Sprite is offered in two different sizes, which of the following sizes, would you like to buy?



Section 03

#### **Linear Price Condition**

Size: 250 ml	Size: 500 ml
Price: Rs.25	Price: Rs.50
	(and

#### **Supersize Price Condition**

Size: 250 ml	Size: 500 ml
Price: Rs. <b>25</b>	Price: Rs.40
	(200°)

Imagine that Sprite is offered in two different sizes, which of the following sizes, would you like to buy?

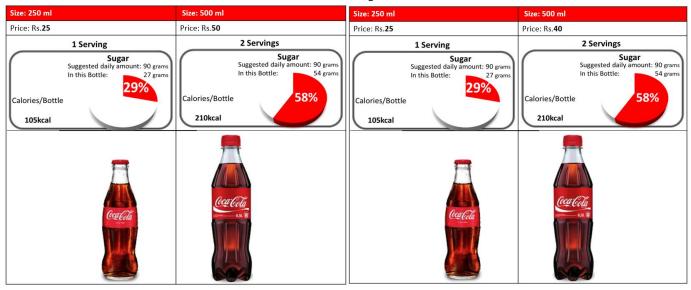


## **Nutritional labeling condition (Linear vs Supersized pricing)**

#### **Section 01**

#### **Linear Price\*Nutritional label**

# **Supersize Price\*Nutritional label**



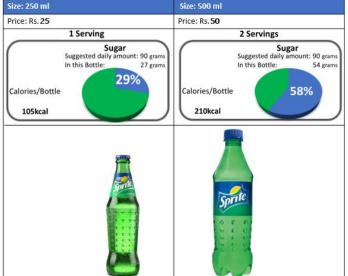
Imagine that Coca Cola is offered in two different sizes, which of the following sizes, would you like to buy?

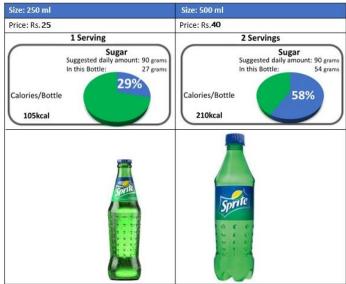
250 ml 500 ml

#### **Section 02**

#### **Linear Price\*Nutritional label**

# **Supersize Price\*Nutritional label** Size: 250 ml





Imagine that Sprite is offered in two different sizes, which of the following sizes, would you like to buy?

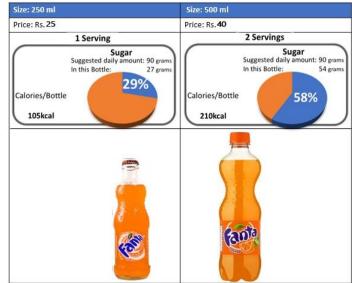
250 ml 500 ml

#### **Section 03**

# **Linear Price\*Nutritional label**

# Size: 250 ml Size: 500 ml Price: Rs. 25 Price: Rs. 50 2 Servings 1 Serving Sugar Suggested daily amount: 90 grams In this Bottle: Sugar Suggested daily amount: 90 grams In this Bottle: 29% Calories/Bottle Calories/Bottle 58% 105kcal 210kcal Ewis

# **Supersize Price\*Nutritional label**



Imagine that Fanta is offered in two different sizes, which of the following sizes, would you like to buy?									
250 ml									
500 ml									
SECTION 4:									
1. What is your over	all attitu	ıde towa	rd the pro	oduct?					
Ositive									
Negative									
2. How much do you	like this	soft drin	ık?						
Not at all	1	2	3	4	5	6	Very much		
3. How important, ea	ch of th	e given a	ttributes	was to yo	our purcha	se decisi	on?		
A. Calories									
Not at all important	1	2	3	4	(5)	6	Very Important		
B. Sugar									
Not at all important	1	2	3	4	(5)	6	Very Important		

C. Caffeine									
Not at all important	1	2	3	4	(5	) (	6	Very Important	
D. Health Concerns									
Not at all important	1	2	3	4	(5	) (	6	Very Important	
E. Convenience									
Not at all important	1	2	3	4	(5	) (	6	Very Important	
F. Flavour									
Not at all important	1	2	3	4	5	) (	6	Very Important	
4. Indicate the extent	to whic	ch the p	ricing for	the sm	all and la	rge optio	ns ga	ve you an excuse to purchase	
Not at all	1	2	3	4	(5)	) (	<u></u>	Very much so	
5. Indicate the extent to which the price difference between two sizes offered encouraged you to purchase a larger size than the size you normally buy?									
Not at all	1	2	3	4	5	(6	) (	ery much so	
6. How thirsty you ar	e at the	momer	nt?						
Not at all thirsty	1	2	3	4	(5)	) (	6	Very thirsty	
7. Based on the optic	ins you :	saw ear	lier, pleas	se indica	ate wheth	ner the p	rices	were	
the same per unit for all options		D (	2) (	3	4	5	6	Buying a larger quantity cost less per unit	
8. Did you consider the nutritional information given about the soft drink before making the purchase decision?									
Not at all	(	1) (	2	3	4	5	(	Very much so	
9. Would you be mor		s likely t	o purcha	se the c	urrent siz	e of the	bottle	e based on based on its	
Extremely unlikely		D (	2) (	3	4	5	(6	Extremely likely	
				31	.5				

decision?							
Not at all	1	2	3	4	(5)	6	Very much so
10. Gender							
11. Qualification							
12. Age							

10. Did the information about the number of calories and sugar in the bottle influence your purchase

THANK YOU SO MUCH FOR THE RESPONSE

# Study 03

Which of the following brands or flavours, did you choose?

Lays Masala



Lays French cheese



Note: Please go to section A if you chose lays Masala else Section B and then move to Section C

#### **Section A**

Which of the following package sizes, did you choose?

#### **Linear Price Condition**



#### **Supersize Price Condition**

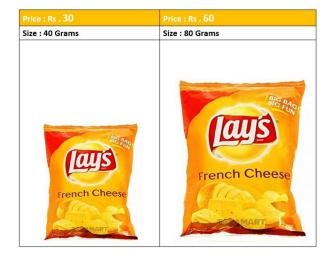


Small (40g
Large(80g

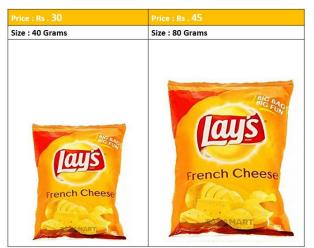
#### **Section B**

Which of the following package sizes, did you choose?

#### **Linear Price Condition**



## **Supersize Price Condition**



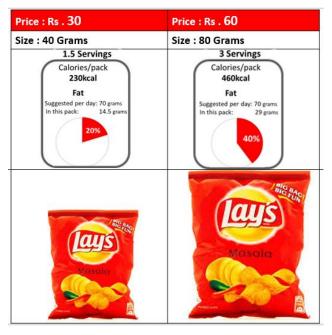
Small (40g)
Large(80g)

#### **Nutritional labelling condition (Linear vs Supersized pricing)**

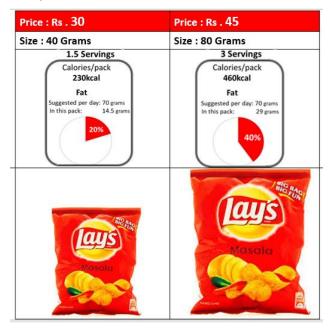
#### **Section A**

Which of the following package sizes, did you choose?

#### **Linear Price\*Nutritional Label**



#### **Supersize Price\*Nutritional Label**



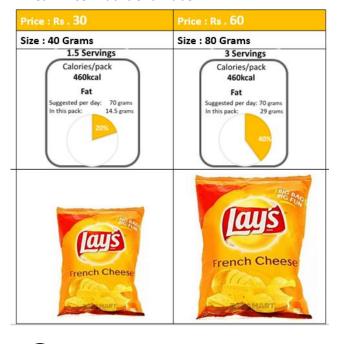
Small (40g)
Large(80g)

French Cheese

#### **Section B**

Which of the following package sizes, did you choose?

#### **Linear Price\*Nutritional Label**



# Size: 40 Grams Size: 80 Grams 1.5 Servings 3 Servings Calories/pack Calories/pack 460kcal 460kcal Fat 14.5 gram In this pack:

**Supersize Price\*Nutritional Label** 

French Chees

Small (40g) Large(80g)

#### **Section C**

2. How much do you like this product?

Not at all

- (2)
- (4)
- (5)
- **(6)** Very much

3. I am willing to go to extra effort to find lower prices.

Strongly disagree

- (2)
- (3)

(3)

- (4)
- (5)

**(6)** Strongly agree

4. I will shop at more than one store to take advantage of low prices.

Strongly disagree

- (2)

(2)

- (3)
- (4)

**(6)** Strongly agree

5. The money saved by finding lower prices is usually worth the time and effort

Strongly disagree

- (2)
- (3)
- (4)
- (5)

(5)

**(6)** 

Strongly agree

6. When I shop, I usually compare the "price per unit" information for products I normally buy.

Strongly disagree

- (1)
- (3)
- (5)(4)
- **(6)**

Strongly agree

7. The money saved by fi	nding lov	w prices i	s usually	not worth	n the time	and effo	rt.
Strongly disagree	1	2	3	4	5	6	Strongly agree
8. How hungry were are	at the sta	art of sess	sion?				
Not at all hungry	1	2	3	4	5	6	Very hungry
9. Based on the options y	ou saw e	earlier, pl	ease indi	cate whe	ther the pr	ices wei	re
the same per unit for all options	1	2	3	4	(5)	6	Buying a larger quantity cost less per unit
10. Did you consider the decision?	nutrition	al inform	ation giv	en about	the produ	ct before	e making the purchase
Not at all Very	1	2	3	4	5	6	much so
11. Would you be more on nutritional information?	or less lik	ely to pui	rchase th	e current	size of the	chips b	ased on based on its
Extremely unlikely	1	2	3	4	5	6	Extremely likely
12. Did the information a decision?	bout the	e amount	of calorie	es and fat	on the pa	ck influe	nce your purchase
Not at all	1	2	3	4	5	6	Very much so
13.What is your current	weight m	anageme	ent goal				
Lose weight							
Gain weight							
Maintain weight							
Not do anything ab	out weig	ht					
14. Gender							
15. Qualification							
16. Age							
17.Name							

THANK YOU SO MUCH FOR THE RESPONSE

#### **Study 04 (Delayed Consumption Context)**

#### **Linear vs Supersize pricing condition**

1. Imagine that you are in a supermarket and looking forward to purchasing a multipack of Cadbury chocolate for yourself, which is offered in two different package sizes. Which of the following given package sizes which you like to choose?

#### **Linear Price condition**

# Size: 264g (11g\*24 units) Size: 528g (22g\*24) Price: Rs. 216 Price: Rs. 432

#### **Supersize Price condition**



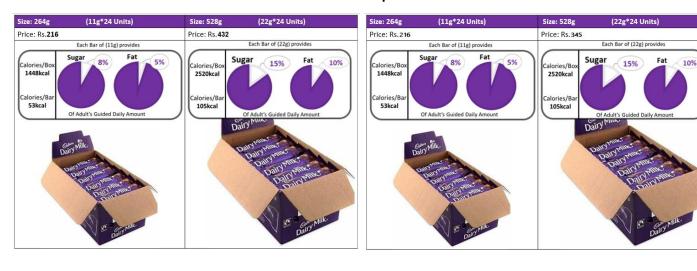
Small(264g)
Large(528g)

#### **Nutritional Labelling Condition**

1. Imagine that you are in a supermarket and looking forward to purchasing a multipack of Cadbury chocolate for yourself, which is offered in two different package sizes. Which of the following given package sizes which you like to choose?

#### **Linear Price\*Nutritional Label Condition**

#### **Supersize Price\*Nutritional Label Condition**



	Small(264g)
$\widetilde{}$	Large(528g)

	2.	How	much	do v	ou/	like	this	product	:?
--	----	-----	------	------	-----	------	------	---------	----

Not at all 1 2 3 4 5 6 Very much

3. How important, each of the given attributes was to your purchase decision?

#### A. Calories

Not at all important

B. Fat

Not at all important 1 2 3 4 5 6 Very Important

C. Sugar

#### D. Convenience

Not at all important

Not at all important 1 2 3 4 5 6 Very Important

Very Important

Very Important

E. Nutritional proper	ties							
Not at all important	1	2	3	4	(5)	6	Very Important	
F. Health Concerns								
Not at all important	1	2	3	4	(5)	6	Very Important	
4. Indicate the extent the larger size	to whic	h the pric	ing for th	ne small a	nd large op	otions g	ave you an excuse to purchase	
Not at all	1	2	3	4	5	6	Very much so	
5. Indicate the extent purchase a larger size		•			een two siz	es offe	red encouraged you to	
Not at all	1	2	3	4	(5)	6	Very much so	
6. I reflect about my I	health a	lot						
Strongly disagree	1	2	3	4	5	6	Strongly agree	
7. I'm very self-consc	ious abo	ut my he	alth					
Strongly disagree	1	2	3	4	5	6	Strongly agree	
8. I'm alert to change	s in my l	nealth						
Strongly disagree	1	2	3	4	5	6	Strongly agree	
9. I'm usually aware of	of my he	alth						
Strongly disagree	1	2	3	4	5	6	Strongly agree	
10. I take responsibili	ty for th	e state of	my heal	th				
Strongly disagree	1	2	3	4	(5)	6	Strongly agree	
11. I am willing to go	to extra	effort to	find lowe	er prices.				
Strongly disagree	1	2	3	4	5	6	Strongly agree	
12. I will shop at more than one store to take advantage of low prices.								
Strongly disagree	1	2	3	4	(5)	6	Strongly agree	
13. The money saved	by findi	ng lower	prices is ı	usually wo	orth the tin	ne and	effort	
Strongly disagree	1	2	3	4	5	6	Strongly agree	

14. When I shop, I usually o	compare	e the "pri	ce per un	it" inforn	nation for p	oroduct	s I normally buy.
Strongly disagree Strongly	1	2	3	4	(5)	6	agree
15. The money saved by fir	nding lo	w prices	is usually	not wort	h the time	and eff	ort.
Strongly disagree	1	2	3	4	5	6	Strongly agree
16. Based on the options y	ou saw	earlier, p	lease indi	cate whe	ther the pi	rices we	ere
the same per unit for all options	1	2	3	4	(5)	6	Buying a larger quantity cost less per unit
17. Did you consider the nu decision?	utritiona	al informa	ation give	n about t	he produc	t before	e making the purchase
Not at all	1	2	3	4	5	6	Very much so
18. Would you be more or nutritional information?	less like	ely to pur	chase the	current	size of the	chips ba	ased on based on its
Extremely unlikely	1	2	3	4	(5)	6	Extremely likely
19. Did the information abodecision?	out the	amount (	of calorie	s and fat	on the pac	k influe	nce your purchase
Not at all	1	2	3	4	5	6	Very much so
20. What is your current w	eight m	anageme	ent goal				
Lose weight							
Gain weight							
Maintain weight							
Not do anything abou	ut weigh	nt					
21. Gender							
22. Qualification							
23. Age							

THANK YOU SO MUCH FOR THE RESPONSE

#### Study 05 (France)

### Condition de tarification linéaire vs surdimensionnée (Lays Nature)

Imaginez que les chips Lays soient offertes dans différents formats: lequel de ces formats aimeriez-vous acheter pour votre consommation immédiate?

#### Condition de prix linéaire



#### Supersize condition de prix



Petit
Moyen
Grand

### Condition de tarification linéaire vs surdimensionnée (Lays Light)

## Condition de prix linéaire



## Supersize condition de prix



Petit

Moyen

Grand

Goal prime: Neutral vs Health Prime

## Etude sur les décisions prises par les consommateurs

Les chercheurs s'intéressent aux décisions que les consommateurs prennent quotidiennement. Par exemple, comment les consommateurs choisissent entre deux options similaires.

Aujourd'hui, on vous demandera comment vous vous sentiriez et que feriez-vous dans des situations spécifiques. Veuillez lire attentivement la situation et essayez de vous imaginer réellement en train de prendre la décision.

Une fois que vous aurez fini de lire ces instructions, passez à la section suivante.



### Santé prime (Health Prime)

## Etude sur les décisions prises par les consommateurs

Les chercheurs s'intéressent aux décisions que les consommateurs prennent quotidiennement. Par exemple, comment les consommateurs choisissent entre deux options similaires.

Aujourd'hui, on vous demandera comment vous vous sentiriez et que feriez-vous dans des situations spécifiques. Veuillez lire attentivement la situation et essayez de vous imaginer réellement en train de prendre la décision.

Une fois que vous aurez fini de lire ces instructions, passez à la section suivante.

1.	A quel point aimea	z-vous c	es chips	?					
Pas	du tout	1	2	3	4	(5)	6	Tout à fait	
2.	2. Quelle importance avez-vous accordé à chacune des <b>caractéristiques ci-dessous</b> lors de votre décision d'achat (= lors du choix entre les deux formats proposés précédemment) ?								
A. I	Les calories								
Pas	du tout important	1	2	3	4	5	6	Très important	
B. I	Les matières grasse	es							
Pas	du tout important	1	2	3	4	(5)	6	Très important	
C. I	Le cholestérol								
Pas	du tout important	1	2	3	4	(5)	6	Très important	
<b>D.</b> S	Sel								
Pas	du tout important	1	2	3	4	(5)	6	Très important	
E. S	Saturées								
Pas	du tout important	1	2	3	4	5	6	Très important	
3.	Indiquez à quel po excuse pour achete				entre le po	etit et le g	rand fo	ormat vous a donné une	
Pas	du tout	1	2	3	4	(5)	6	Tout à fait	
4.	Indiquez à quel po à acheter un plus g						-	posés vous a encouragé ment ?	
Pas	du tout	1	2	3	4	5	6	Tout à fait	
5.	<ul> <li>5. Comment vous sentiriez-vous coupable de dépenser de l'argent pour acheter ce paquet de chips Lays?</li> <li>Pas du tout (1) (2) (3) (4) (5) (6) Extrêmement</li> </ul>								
6									
6. Comment vous sentiriez-vous regrettable de dépenser de l'argent pour acheter ce paquet de chips Lays?									
	Pas du tout	1	2	3	4	(5)	6	Extrêmement	
7.		ntiriez-v	ous inqu	iet de dé	penser de	e l'argent <sub>l</sub>	pour ac	cheter ce paquet de chips	
	Lays? Pas du tout	1	2	3	4	5	6	Extrêmement	

8.	Comment vous s chips Lays?	entiriez	-vous hé	sitant de	dépense	r de l'arge	ent pour	r acheter ce paquet de
	Pas du tout	1	2	3	4	5	6	Extrêmement
9.	Comment vous s chips Lays?	entiriez	-vous rét	icent de	dépense	r de l'arge	ent pour	acheter ce paquet de
	Pas du tout	1	2	3	4	5	6	) Extrêmement
10.	Comment vous s Lays?	entiriez	-vous dé	solé de d	lépenser	de l'argen	it pour	acheter ce paquet de chips
Pas	s du tout	1	2	3	4	(5)	6	) Extrêmement
11.	Indiquez le degre différentes tailles	-	-		rait assoc	ciée à la c	onsomi	mation de chacun des
Con	sommer des petit	s(45g) p	aquets d	e lays m	e ferait s	entir plus	coupal	ole
Pas	du tout	1	2	3	4	(5)	6	Extrêmement
Con	sommer des paqu	ets de ta	aille moy	enne(12	0g) de L	ays me fe	rait sen	tir plus coupable
Pas	du tout	1	2	3	4	(5)	6	Extrêmement
Con	sommer des paqu	ets de g	rande tai	lle(150g	g) de Lay	s me fera	it sentir	plus coupable
Pas	du tout	1	2	3	4	(5)	6	Extrêmement
	e : Indiquez dans opliquer à vous	quelle i	mesure o	chacune	des affir	rmations	ci-dess	ous (de 12 à 21 ) peut
12.	"Je réfléchis beau	coup à n	na santé"					
oas (	du tout d'accord	1	2	3	4	5	6	Tout à fait d'accord
13.	"Je fais très attent	tion à mo	a santé"					
Pas	du tout d'accord	1	2	3	4	(5)	6	Tout à fait d'accord
14.	"Je suis attentive(	ve) à l'é	volution a	le ma san	ıté"			
Pas	du tout d'accord	1	2	3	4	(5)	6	Tout à fait d'accord
15.	15. "Je suis généralement au courant de mon état de santé"							
Pas	du tout d'accord	1	2	3	4	(5)	6	Tout à fait d'accord
16.	"J'assume la resp	onsabilii	té mon éta	at de sani	'é"	_		
Pas	du tout d'accord	1	2	3	4	(5)	6	Tout à fait d'accord
17.	"Je suis prêt(e) à j	faire des	efforts si	ıpplémen	taires poi	ır trouver	des prix	plus bas''
Pas	du tout d'accord	1	2	3	4	(5)	6	Tout à fait d'accord

18. "Je suis prêt(e) à f	18. "Je suis prêt(e) à faire les courses dans <u>plus</u> d'un magasin pour bénéficier de prix plus bas"						
Pas du tout d'accord	1	2	3	4	(5)	<b>6</b> To	out à fait d'accord
19. "Les économies réalisées en trouvant des prix plus bas valent généralement l'investissement en temps et effort"							
Pas du tout d'accord	1	2	3	4	(5)	6	Tout à fait d'accord
20. "Quand je fais mes	s course	s, je comp	oare le pr	ix par un	ité des prod	duits que	j'achète habituellement"
Pas du tout d'accord	1	2	3	4	(5)	6	Tout à fait d'accord
21. "Les économies ré effort"	alisées e	en trouvai	nt des pri:	x plus bas	s NE valent	PAS l'in	nvestissement en temps et
Pas du tout d'accord	1	2	3	4	5	6	Tout à fait d'accord
22. En ce moment me	ême, à (	quel poir	ıt avez-v	ous faim	?		
Pas du tout	1	2	3	4	5	6	Tout à fait
23. A partir des optio	ons évoc	quées pré	cédemn	nent, mer	ci d'indiq	uer si:	
Les prix par unité des options étaient les mêmes	1	2	3	4	(5)	6	Acheter en grande quantité coûte moins cher que par unité
24. Etes-vous :							
O Un h	omme			(	O Une f	emme	
25. Qualification/ di	plôme (	btenu					
26. Age							
		MERCI	BEAU	COUP P	OUR VO	TRE R	EPONSE!

## Appendix III- Exploratory Analysis

Table 03: Themes emerged from Projective techniques and Interviews

	Themes		Themes	
Codes	Antecedents	Codes	Consequences	
Cost less, low cost, value for money, quantity vs. price benefit, Cheap, less price, less amount, benefit of the deal	Price Quantity trade-off	Saving, saves money, cost less, paying less, feeling of benefit	Financial saving	
Loving it, like it, enjoy it,	Liking	More food, More	Quantity	
Pleasurable, tasty		quantity, too much food		
		It's too much, over- drinking, harmful for health, weight gain,	Overconsumption /Health concerns	
Hungry, starving, did not eat, empty stomach	Hunger	It gets wasted, can't drink all, can't finish, can't clean the plate	Food waste	
Me too, like you, same food	Social Influence	Satisfied, feel good, gives pleasure, happy, enjoy	Affective outcomes	
Sharing food, buying the deal, eat together, sharing the cost	Sharing	Sharing food, sharing the cost, eat together	Sharing	
Looking for a deal, cheap menu, offer, low price, health, diet conscious, health-focused	Health vs. Price consciousness	Low quality, poor quality, not the same quality	Quality	
Status-conscious, show off, afford to buy	Social Status	Luxury food, show off, feel superior	Social Status	
To spend more time at the restaurant	Leisure time	To chat with friends, enjoy the atmosphere	Leisure time	

## Themes emerged via completion and construction technique

*Table 04:* Frequency of mention and emerging themese via compeltion and construction technique

Category	Examples	Percentage of mention (%)
Categories identified in the co	ompletion task for the first stimulu	` '
Price benefit	Cost less, low cost, saving,	42
	value for money	
Quantity	More food, more quantity	41
Likeness	Like it, love it, enjoy it	25
Affective outcomes	Feel satisfied, feel good,	25
	gives pleasure	
Status	Feel superior, status	35
	conscious, show off, afford to	
	buy	
Leisure time	Spend more time at	15
	restaurant, want to chat with	
	friends	
Categories identified in the co	ompletion task for the second stim	ulus
Price benefit	Cheap, less price, less	50
	amount, benefit of deal	
Quantity	Too much, more food, more	45
<b>C</b>	quantity	
Price consciousness	Looking for deal, cheap	30
	menu, offer	
Status	Luxury food, show off,	15
	affordability	
Categories identified in the co	ompletion task for the third stimulum	us
Modelling/Social Influence	Me too, like you, same food	60
Uninfluenced choice	Any other deal, normal size,	40
	hot and spicy, salad,	. 0
Categories identified in the co	ompletion task for the fourth stimu	lus
Sharing	Sharing food, sharing cost,	70
Likeness	Loving it, like it, enjoying it	40
	ompletion task for the fifth stimulu	
Health	It's too much, over drinking,	80
concerns/overconsumption	harmful for health, weight	00
concerns, overconsumption	gain,	
Food waste	It gets wasted, can't drink all,	50
rood waste	can't finish	30
Categories identified in the co	ompletion task for the sixth stimul	ne
Need/Thirst	It's too much, over drinking,	75
INCCU/ IIIIISt	harmful for health, weight	13
	gain,	
	333	

Sharing	It gets wasted, can't drink all,	60	
	can't finish		
Leisure time	Spend more time at	15	
	restaurant, want to chat with		
	friends		

Table 05: Analysis of the data collected through the Personification technique

Category	Verbatim
Body size	The person who is heavy will eat 4 burgers
(Both male and female)	and a slim person will eat one burger
(Both mare and female)	<ul> <li>The bigger size burger relates to a fat person</li> </ul>
	• The more burgers you eat the fatter you get
	A heavier person will consume more food     Slim needs small and fatty wants Big one
Ago	<ul> <li>Slim needs small and fatty wants Big one</li> </ul>
Age	
• Kid (Teenager)	• 230(45%)
<i>( 2 )</i>	• 500(36%),
	• 1000(18%)
	1000(1070)
<ul> <li>Teenager (Young) adult</li> </ul>	o 1500(43%)
	o 1000(36%)
	o 500(21%)
<ul> <li>Adult (Middle-Aged)</li> </ul>	- 1000(60%)
<ul><li>Adult (Middle-Aged)</li></ul>	• 1000(62%)
	• 500(23%) • 230(15%)
	<b>2</b> 30(15%)
✓ Senior citizen (elderly person)	✓ 230(54%)
,	✓ 500(31%)
	✓ 1500(15%)
	,
Family size	
Family size	The large size of lays would remain better for
<ul> <li>Couple</li> </ul>	this couple
Couple	• 120g, because they'll both eat it
	• The 120g so it's enough for both
	<ul> <li>The 120g so it's chough for both</li> <li>The last one because it's big and fit for them</li> </ul>
	<ul> <li>The last one because it's big and it for them</li> <li>The large one, because they won't have to buy</li> </ul>
	another so that they can share.
	<ul> <li>Jumbo pack that makes the couple complete</li> </ul>
	in a single package.
<ul> <li>Couple with kids</li> </ul>	The larger the family, the larger the package
2 338pt	Size  People buy large when their family is large
	<ul> <li>People buy large when their family is large.</li> </ul>

# **Annexure IV: Quantitative Analysis**

**Table 06: Manipulation Checks and Pretests** 

Manipulation check	Measurement	Study	Analysis of Variance Testing for Differences across Experimental Conditions
	D::	Study 1	$M_{linear} = 3.66$ , $M_{super} = 5.05$ ; $t = 6.06$ , $p < .01$
	Pricing structure "Based on the options you saw earlier, please indicate	Study 2	$M_{linear} = 2.86$ , $M_{super} = 4.02$ ; $t = 3.82$ , $p < .01$
Pricing Structure	whether the prices were: "1 = "the same	Study 3	$M_{linear} = 3.19, M_{super} = 4.31; t = 4.5, p < .01$
	per unit for both options," and 6 = "buying a larger	Study 4	$M_{linear} = 3.85$ , $M_{super} = 4.70$ ; $t = 4.76$ , $p < .01$
	quantity cost less per unit"	Study 5	$M_{linear} = 3.93, M_{super} = 4.42; t = 2.895, p < .01$
	"Did you consider the nutritional	Pre-	M <sub>nutrilabel</sub> =3.73, M <sub>control</sub> =2.75; t=3.43, p<.01
	information given about the product before making the purchase decision?", "Would you be more or less likely to purchase the current Size of the product based on its Nutritional information and "Did the information about the amount of calories/sugar and fat in the product influence your purchase decision?" 1 = "not at all," and 6 = "very much so"	test/serving	, control , , , , , , , , , , , , , , , , , , ,
		$(\alpha = .93)$	
		Pre-test/pack	$M_{nutrilabel}$ =4.45, $M_{control}$ =2.45; t=10.1, p<.01
		$(\alpha = .87)$	
Nutritional		Study 2 $(\alpha = .79)$	$M_{nutrilabel}$ =4.21, $M_{control}$ =2.95; t=8.97, p<.01
Labeling		Study 3	
		$(\alpha = .83)$	$M_{\text{nutrilabel}}$ =3.88, $M_{\text{control}}$ =2.54; t=8.24, p<.01
		Study 4 $(\alpha = .81)$	M <sub>nutrilabel</sub> =4.07, M <sub>control</sub> =2.94; t=7.30, p<.01
Anticipated Consumption Guilt	"Indicate the extent to which guilt would be associated with either of the product types?" 1 = "not at all," and 6 = "very much so"	Study 5 (Pre-test)	Lays <sub>light</sub> =2.55, Lays <sub>nature</sub> =3.6; t=3.1, p<.01

Table 07: Summary of Size Choices by Price Condition for All Studies

	e 07: Summary				
Study	Goal	Price	Size 1	Size 2	Size 3
G. 1 1 01 70		Condition	22 (60 50()	44 (26 00/)	4 (0 (0/)
Study 1 (N=76)		Linear	23 (60.5%)	14 (36.8%)	1 (2.6%)
		Supersized	14 (36.8%)	18 (47.4%)	6 (15.8%)
Study 2 (N=188)	Health goal	Linear	37 (75.5%)	12 (24.5%)	N.A.
		Supersized	36 (78.3%)	10 (21.7%)	N.A.
	No health goal	Linear	33 (73.3%)	21 (26.7%)	N.A.
		Supersized	12 (43.8%)	27 (56.3%)	N.A.
Study 3(N=136)	Health goal	Linear	25 (48.1%)	9 (56.3%)	N.A.
• •	C	Supersized	27 (51.9%)	7 (43.8%)	N.A.
	No health goal	Linear	24 (68.6%)	10 (30.3%)	N.A.
	C	Supersized	11 (31.4%)	23 (69.7%)	N.A.
		<b>F</b>	(= )	( )	
Study 4 (N=125)					
, ,	Health goal	Linear	20(76.9%)	6(23.1%)	N.A.
	8	Supersized	17(48.6%)	18(51.4%)	N.A.
	No health goal	Linear	22(75.9%)	7(24.1%)	N.A.
	1 to House gour	Supersized	11(31.4%)	24(68.6%)	N.A.
		Supersized	11(011170)	21(001070)	11111
Study 5(N=274)	Health goal	Linear	20(51.3%)	18(46.2%)	1(2.6%)
Lays Nature		Supersized	16(51.6%)	9(29%)	6(19.4%)
	Neutral	Linear	20(64.5%)	11(35.5%)	0(%)
	1 (Outla)	Supersized	9(25%)	17(47.2%)	10(27.2%)
		Supersizeu	)(25/0)	17(47.270)	10(27.270)
Lays Light	Health goal	Linear	18(56.3%)	11(34.4%)	3(9.4%)
2, 5 26	11001011 5001	Supersized	9(25.7%)	16(45.7%)	10(28.6%)
	Neutral	Linear	13(37.1%)	14(40%)	8(22.9%)
	ricultai		4(11.4%)	20(57.1%)	11(31.4%)
		Supersized	T(11.7 /0)	40(37.170)	11(31.4 /0)

Note: N.A. = not applicable. Bold values signify conditions with significant differences (p < .05) in size choice based on pricing method.

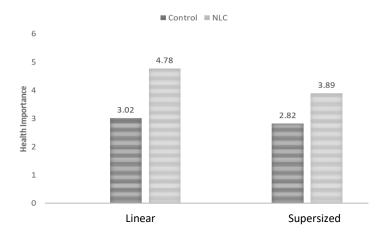


Figure 17: Impact of Supersized Pricing and Nutritional label on Health Importance (Study 02)

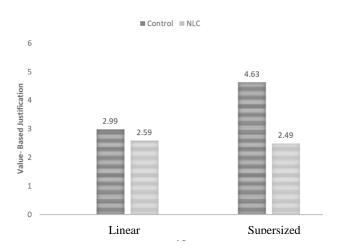


Figure 18: Impact of Supersized Pricing and Nutritional label on Value-Based Justification (Study 02)

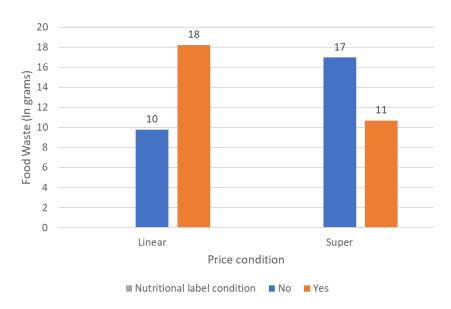


Figure 19: Influence of Supersized pricing and NL on Food waste (Study 03)

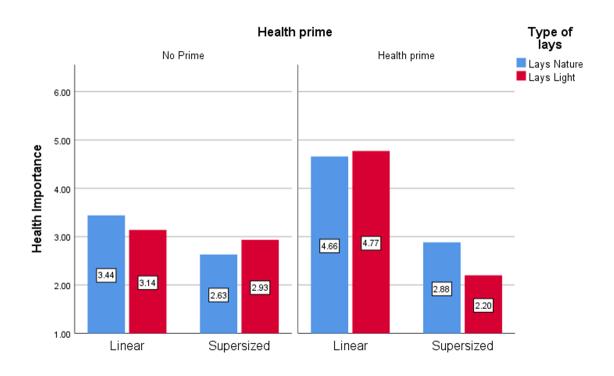


Figure 20: Impact of Supersized Pricing, Goal Prime, and Product Type on Health Importance (Study 05)

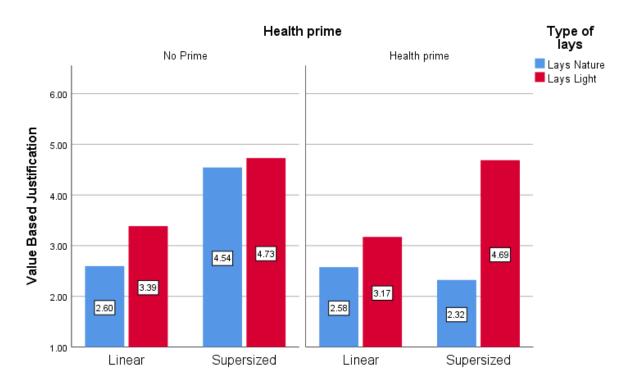


Figure 21: Impact of Supersized Pricing, Goal Prime, and Product Type on VBJ (Study 05)

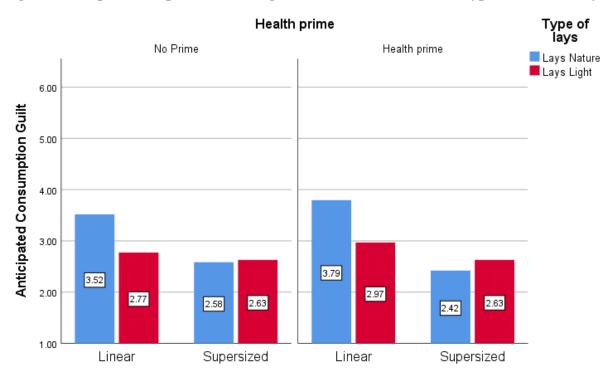


Figure 22: Influence of Supersized Pricing, Goal Prime, and Product Type on Anticipated Consumption Guilt (Study 05)