

UNIVERSITY OF CAPE COAST

ANALYSING CONSUMERS' FOOD CHOICES: A STUDY OF
RESTAURANTS IN TAKORADI.



GRACE ABA BOISON

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RESTAURANTS IN TAKORADI.

BY

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award of Doctor of Philosophy degree in Hospitality Management

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: Date:

Name: Grace Aba Boison

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

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Co-Supervisor's Signature: Date:

Prof. Eunice Fay Amissah

ABSTRACT

Individual food choices are complex and dynamic, varying depending on the context. To understand these complexities, a context-specific study was conducted to analyse food choices among restaurant consumers in Takoradi, Ghana. The study utilized a cross-sectional research design based on the positivist paradigm of social science research and a multi-stage sampling procedure. A total of 519 restaurant consumers were interviewed from October 27th to November 29th, 2021, to collect data on their food choices and the factors that affect them. The data was processed and analysed using IBM SPSS Statistic version 27. The analysis included descriptive statistics such as frequencies and pie charts, inferential statistics such as the Chi-square Test of Independence, Independent Samples T-Test, One Way Analysis of Variance (ANOVA), Binary Logistic Regression Analysis, and Exploratory Factor Analysis (EFA). The results showed that the main reason for eating out was for family and friends' gatherings and that cleanliness was the main criterion for choosing a restaurant, although this varied by restaurants and respondents. The results also showed that sensory and physiological factors were the main reasons for food choices and that chicken and rice were the most popular main dishes and accompaniments eaten, respectively. Moreover, the results indicated that respondents' knowledge, mood/emotion, and access were significant predictors of food choices. It is recommended that restaurant operators should target the family and friends' market and provide nutritional information on their dishes.

KEYWORDS

Consumers

Eating out

Food choices

Ghana

Restaurant

Takoradi

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DEDICATION

To my mothers, Margaret and Vivian.

TABLE OF CONTENTS

Content	Page
DECLARATION	ii
ABSTRACT	iii
KEYWORDS	iv
ACKNOWLEDGEMENTS	v
DEDICATION	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xii
LIST OF FIGURES	xiv
LIST OF ABBREVIATIONS	xv
CHAPTER ONE: INTRODUCTION	
Background to the Study	1
Statement of the Problem	8
Research Questions	12
Research Objectives	13
Hypotheses of the Study	14
Significance of the Study	15
Organisation of the Thesis	17
CHAPTER TWO: CONCEPTUAL AND THEORETICAL REVIEW	
Introduction	20
The Concept of Eating Out	20
Reasons for Eating Out	25
The Concept of Restaurant	26
History of Restaurants	28

The Concept of Food Choice	32
Dimensions of Food Choice Behaviour	33
Theoretical Foundations of the Study	38
Models of Food Choice	48
The Conceptual Framework for the Study	58
Chapter Summary	61
CHAPTER THREE: FOOD CHOICE ISSUES IN RESTAURANTS	
Introduction	62
Restaurant-Related Factors	62
Person-Related Factors	65
Attitudes and Motivation	77
Biological/Physiological Factors	80
Food Related Factors	84
Nutrition	89
Price	90
Environmental Determinants of Food Choice	91
Social Groups, Social Norms, Social Settings, and Social Determinants	95
The Influence of Media and Advertising	96
Chapter Summary	97
CHAPTER FOUR: METHODOLOGY	
Introduction	99
Study Area	99
Research Philosophy	102
Research Design	105
Target Population	106

Data and Sources	106
Sample Size	106
Research Instrument	110
Data Collection Procedures	112
Training of Field Assistants	113
Entry Protocols	113
Fieldwork	114
Data Processing and Analysis	114
Research Quality and Ethical Considerations	116
Chapter Summary	116
CHAPTER FIVE: RESPONDENTS' PROFILE AND FACTORS INFLUENCING THE CHOICE OF RESTAURANTS IN TAKORADI	
Introduction	117
Socio-Demographic Characteristics of Respondents	117
Reasons for Eating Out in Restaurants	121
Factors Influencing Choice of Restaurant	122
Restaurant Choice Factors by Socio-Demographics	129
Period of Meals (Meal Option) and Reasons for Eating Out (Meal Occasion) in Restaurants	135
Chapter Summary	142
CHAPTER SIX: FACTORS INFLUENCING FOOD CHOICE OF RESTAURANT CONSUMERS	
Introduction	144
Factors Influencing Food Choice of Restaurant Customers	144
Food-Related Factors Influencing Restaurant Consumers' Food Choice	149

Person-Related Factors Influencing Restaurant Consumers' Food Choice	152
Socio-Cultural Related Factors Influencing Restaurant Consumers' Food Choice	157
Food Choice Factors in Restaurants Across Socio-Demographic Characteristics	159
Chapter Summary	165
CHAPTER SEVEN: FOOD CHOICES OF RESTAURANT CONSUMERS	
Introduction	166
Types of Meals Consumed in Restaurants	166
Relationship Between Meals Consumed and Restaurant Category	168
Relationship Between Meals Consumed and Meal Occasion	172
Relationship Between Meals Consumed and Socio-Demographic Variables	176
Chapter Summary	183
CHAPTER EIGHT: RELATIONSHIP BETWEEN FOOD CHOICE FACTORS, RESTAURANT CHOICE FACTORS, AND TYPES OF FOOD	
Introduction	185
Effects of Personal, Socio-cultural, and Food-Related Factors on Food Choice	185
Effects of Restaurant-related Choice Factors on Food Choice	189
Chapter Summary	193
CHAPTER NINE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	
Introduction	194
Summary of Research Process	194
Major Findings	195

Conclusions	197
Recommendations for Policy and Practice	198
Recommendations for Future Research	200
Contribution to Knowledge	202
REFERENCES	204
APPENDIX: Questionnaire	283

LIST OF TABLES

Table		Page
1	Studies Related to Restaurant Food Choice in Ghana	11
2	Positivism, Interpretivism and Pragmatism	104
3	Distribution of Respondents' Sample Size by Restaurant Type	109
4	Socio-Demographic Characteristics of Respondents	118
5	Meal Occasions in Restaurants	121
6	Factors Influencing Choice of Restaurants	123
7	Differences in Restaurant Choice Factors by Restaurant Type	125
8	Restaurant Choice Factors by Socio-Demographics	131
9	Relationship Between Respondents' Meal Option and Meal Occasion	137
10	Meal Occasion and Category of Restaurants Patronised	140
11	Respondents' Meal Options and Category of Restaurant Patronised	141
12	Exploratory Factor Analysis of Factors Influencing Food Choice	147
13	Food-Related Factors Influencing Restaurant Consumers' Food Choice	150
14	Person-Related Factors Influencing Restaurant Consumers' Food Choice	154
15	Socio-Cultural Related Factors Influencing Restaurant Consumers' Food Choice	158
16	Differences in Food Choice Factors in Restaurants across Consumer Socio-Demographic Characteristics	161
17	Main Dishes and Accompaniments Eaten in Restaurants	167
18	Relationship between Meals Consumed and Restaurant Category	170

19	Relationship Between Types of Meals Consumed and Meal Occasion	174
20	Relationship Between Meals Consumed in Restaurants by Socio-Demographics	178
21	Binary Logistics Coefficients of Food Choice Factors and Customers' Main Dishes	187
22	Binary Logistics Coefficients of Food Choice Factors and Customers' Main Dishes Cont'd	188
23	Binary Logistics Coefficients of Restaurants' Food Choice Factors and Customers' Main Dishes	190
24	Binary Logistics Coefficients of Restaurants' Food Choice Factors and Customers' Main Dishes Cont'd	192

LIST OF FIGURES

Figure		Page
1	Food Choice Process Model	44
2	Factors Influencing Food Preferences	49
3	Factors Influencing the Food Choice Model	50
4	Proposed Conceptual Framework for Study	60
5	Map of the Study Area Showing Some Selected Restaurants	100
6	Restaurant Types	120

LIST OF ABBREVIATIONS

ASE	Attitude, Social Influences, and Self-Efficacy model
EOH	Eating Outside the Home
GTA	Ghana Tourism Authority
HPM	Health Promotion Model
HR	Hotel Restaurants
IR	Independent Restaurants
RCT	Rational Choice Theory
SCT	Social Cognitive Theory
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

Background to the Study

Consumer behaviour has become a major focus of study globally across marketing, psychology, and social sciences field of study. This is in recognition of the growing role consumption plays in the daily lives of people and how the decisions regarding what to consume have both positive and negative outcomes (Solomon, 2006; Foxall, 2005). Understanding consumer behaviour fosters an appreciation for the "processes individuals or groups go through when selecting, purchasing, using, or disposing of products, services, ideas, or experiences to meet their needs and desires" (Solomon, 2006, p. 6).

The Latin word "consumere," which means "to take up completely or to eat," is the root of the English word "consumer." The consumer uses any good or service that is made available to him, whether it comes from natural resources or a market (Lal, 2016). Thus, choice-making is an important reference point for human decision-making: an assessment and judgment in the process of choosing (Beresford & Sloper, 2008).

As a concept, choice is the act of choosing between two or more possibilities or the right or ability to choose; or a number and variety to choose among. It is also the ability to make decisions when presented with two or multiple options or an alternative (Iyengar, 2010) that best meets a person's needs or objectives under such circumstances (Green, 2002). This involves making intentional and purposeful strategies to overcome certain challenges (Lin, 2015).

Making choices is inherently challenging because it often involves sacrifices (Ye, 2018). Green (2002) discusses how choices fit into the economic framework of a scale of preference and opportunity cost. When consumers decide to buy a product or service, they face a trade-off, representing an opportunity cost (Foxall, 2005; Schwartz, 2005). Therefore, persons are at the liberty to make decisions by establishing a scale of preference, which helps them select the best options (Mas-Colell et al., 1995). This tendency is explained by the Rational Choice Theory (RCT), which assumes that individual choices are based on a scale of preferences and opportunity cost (Manzo, 2013). The concept of rational choice assumes that individuals make decisions that align with their self-interest by weighing the costs and benefits involved. It suggests that everyone evaluates the cost of one decision against another while simultaneously analyzing the potential benefits, ultimately aiming to make a rational and optimal choice.

One consequences of consumer choice behaviour is maintenance (the others being accomplishment, hedonism, and accumulation). That is the need for physical survival and well-being, which manifests in such mundane activities as food purchases and finding shelter and security (Foxall, 2010). Eating is obligatory and on average people make about 220 food-related decisions daily (Vilaro, Barnett, Watson, Merton & Matthews, 2017). To do that, one would have to choose between immediate gains, which may be utilitarian (eating to satisfy hunger) or indulgent choices that may satisfy short-term hedonic goals such as pleasure and long-term gains such as good health and general well-being (Munoz-Vilches, van Trijp, & Piqueras-Fiszman, 2019; Wilcox, Vallen, Block, & Fitzsimons, 2009).

Food choices are decisions on what to eat (Gao & Mattila, 2017; Wansink, 2004). Herne (1995) refer it to a collection of planned and and unplanned decisions made by an individual at the point of purchase, consumption or any point in-between. Another widely quoted definition states that food choice is “the process through which people feel, think, and eat food” (Roudsari et al., 2017). Food choice, as defined by Murcott (1998), is the process of choosing foods to eat based on the conflicting, reinforcing, and interacting influences of several factors, including the sensory, physiological, and psychological reactions of specific consumers as well as interactions between social, environmental, and economic influences. It also includes the variety of foods available, the activities of the food industry to promote them, as well as attitudes, believability, and beliefs.

There are several contexts for studying food choices such as the home environment, market stall or a supermarket, sporting activities, hospitals among patients and commercial food service establishments such as restaurants which is the focus of this study. The social transformations that have occasioned the 21st century with its attendant increased pace of life have ushered populations of the world into new frontiers of consumerism with accompanying new eating habits such as the heavy dependence on ready-to-eat food (Quevedo-Silva, Lima-Filho, & Fagundes, 2018; Marinkovic, Senic & Mimovic, 2015; Monteiro, Moubarac, Cannon, Ng, & Popkin, 2013). One important change in lifestyle to match the dependence on ready-to-eat food is the uptake in the phenomenon of eating outside the home environment often associated with eating in restaurants (Tangari Burton, Howlett, Cho, & Thyroff, 2010; Chandon & Wansink, 2007).

In restaurant settings, it is impossible to control all the factors that might influence food choice (Meiselman, 2003). Therefore, studies into the subject have yielded varied factors, which are a manifestation of the diverse types of restaurants and the complex nature of consumer decision-making in general. The type of food and the quantity that is consumed are also influenced by people's mood and feelings (Jansen, Havermans, Nederkoorn, & Roef, 2008; Just, Mancino, & Wansink, 2007) and meal type/time (breakfast, lunch, and dinner) (Elbel, Gyamfi, Kersh, 2011; Bassat, Chapman, & Beagan, 2008), health, religious and other dietary restrictions (lifestyle) also affect food choice in a restaurant (Bhuyan, 2011). Food choices in a restaurant can be influenced by a wide range of factors, including socio-demographics, sensory experiences, physiological and psychological responses of individual consumers, as well as interactions involving social, environmental, and economic influences. These influences encompass the variety of available foods and the promotional activities employed by the food industry. (Buttriss, Stanner, McKeivith, Nugent, Kelly, Phillips et al., 2004).

Additionally, credence attributes (origin, organic, animal welfare, environmental sustainability, and fair trade) of the product all affect food choices in restaurants (Schjoll & Alfnes, 2017). Other factors such as age, gender, and weight all influence how people respond to the menu information available (Dowray, Swartz, Braxton & Viera, 2013; Bollinger, Leslie & Sorensen, 2011; Heathcote & Baic, 2011; Dumanovsky et al., 2010; Pulos & Leng, 2010; Bezerra & Sichieri, 2009).

The foodscape, which is the restaurant, affects the decisions that consumers make. Hence the selection of a restaurant type has been studied as part of the food choices that are made while eating in a restaurant (Wei & Miao, 2013). Consumers select a restaurant based on several attributes broadly divided into food and non-food attributes including the ambience factors; range of the food; image; quality of the food; price of the food; atmosphere; customer relations; employee competence; promotion; and the speed of the service (Savelli, Murmura, Liberatore, Casolani & Bravi, 2017; Choi & Zhao, 2014; Alonso et al., 2013; Ha & Jang, 2012; Harrington et al., 2011; Kim, Hertzman & Hwang, 2010; Njite et al., 2008).

The growing importance of studying consumer food choices in restaurants can be seen in three broad areas each reflecting a specific theme. Firstly, food choice has a noteworthy influence on human health (Whitney & Rolfes, 2008; Lobstein & Millstone, 2007; Stroebele & De Castro, 2004) and provides avenues for understanding the effect of diet on the health of a population (Antin & Hunt, 2012; Preedy, Watson, & Martin, 2011; Roudsari et al., 2017). Thus, food choices determine the nutrients and other substances that enter the human body, subsequently affecting health, morbidity, and mortality. An understanding of food choice has thus become important for health promotion interventions (Vilaro et al., 2017).

The World Health Organization (WHO, 2017) reports that about 13 per cent of the world's population is obese. Environmental and lifestyle factors have been attributed to this growth in obese people worldwide (Krešić, Liović, & Pleadin, 2019). Several studies point to poor-quality diets, heavy intake of saturated fats and

less intake of micronutrients as symptomatic with eating outside (Lachat et al., 2012). As more people eat outside the home environment the concerns over the effects of unhealthy food choices on health are heightened (Kellershohn, Walley & Vriesekoop, 2017; Anderson & Miroso, 2014). Therefore, the bulk of research into food choice in restaurants has focused on the menu and how that can be used to promote healthy eating behaviour. (Gallicano et al. 2012; Kang et al. 2015; Price et al. 2016)

Secondly, food choices in restaurants negatively affect the environment (Filimonau, Lemmer, Marshall, & Bejjani, 2017). Specific food consumption in restaurants has detrimental effects on the environment because of its direct relationship with the food production system (Xue, Wu, Wang & Wang, 2016; Kim et al., 2015; Hu et al., 2020). Agriculture currently accounts for 25% of global greenhouse gas emissions and about 70% of freshwater use (Searchinger, Hanson, Ranganathan, Lipinski, et al., 2013). Various kinds of food have different effects on the environment. Plant-based food has fewer consequences on the environment than animal-based in the form of meat and farmed fish with the highest negative consequence seen in the rearing of cattle and lamb (Clark & Tilman, 2017; Ranganathan et al., 2016; Naylor et al., 2005). Environmental sustainability can therefore be ensured if people shift from animal-based diets to plant-based (Clark & Tillman, 2017; Ranganathan et al., 2016; Tilman & Clark, 2014). Therefore, policymakers are more into how to shape the decision people make about food towards environmental sustainability (Bacon & Krpan, 2018).

Thirdly, health and environmental sustainability issues aside, gaining insights into consumer decision behaviour for accurate and timely information for marketing decision-making has become an important function of hospitality marketing departments. The marketing environment is very dynamic and fluid and to effectively respond to consumer demands, it is important to study their behaviour about their decision-making process when purchasing products (Bukari & Aziz, 2009; Qin & Prybutok, 2009). Food choices drive consumer demand, influencing suppliers within the food system who are responsible for producing, processing, and distributing food. (Sobal, Bisogni, Devine & Jastran, 2006). Detailed knowledge about consumer decision-making in restaurants is important for understanding the demographic and psychographic factors regarding the choices that consumers make in restaurants for segmentation and other marketing mix decisions (Namkung & Jang, 2017; Han, Hsu, Lee, & Sheu, 2011; Amendah & Park, 2008). It is therefore important to study food choice in restaurants looking at its importance in the environment as well as marketing decisions and policy formulation in Ghana.

Ghana's economy has undergone significant changes since the 1990s. According to the World Bank (2018), more Ghanaians live in urban areas than in rural areas. Food choices associated with such transformation have led to significant changes, where food sourcing has increasingly shifted from own production for home consumption to market purchases and eating out because of changing lifestyles and family structures (Andaleeb & Caskey, 2007). As a country

with more people eating out, there should be an interest in where and what they eat and the reasons for such choices, especially in Sekondi-Takoradi.

Takoradi, the study area has seen tremendous growth in the past two decades (Stemn & Agyapong, 2014). The first growth pole however was the construction of the Takoradi port between 1921 and 1928. Ever since the role of Takoradi as a link between the western, north-western, and central regions of Ghana has pushed the growth with the Sekondi-Takoradi Metropolis becoming one of the three core areas of Ghana's economic activities (Konadu-Agyemang, 2001). The oil discovery in the Western region with the concentration of most of the downstream activities in Takoradi has catapulted this growth further (Akakpo, 2015). The accelerated growth of oil discovery and the development of new infrastructures (especially the development of roads and the rebuilding of the Market Circle) in the western region has indeed led to significant changes in various sectors, including the food service industry, especially concerning food menu diversification and the choices consumers make.

Statement of the Problem

From Table 1, previous and present data has revealed an empirical gap that research on the topic i.e. (restaurant choice factors, factors influencing food choice among restaurant consumers and food choices altogether) have largely not been studied in Ghana. For instance, Adam et al (2014), studies on student's safety concerns and choice of eating places in Ghana and Amuquandoh and Asafo-Adjei (2013), studies on traditional food preferences of tourists in Ghana. Another

empirical gap is a shortage of information on studies that are not situated within the restaurant environment thus leaving some gaps on what factors account for restaurant selection. For instance, Meng et al (2014) whose work was on food choice among Ghanaians looked at supermarkets and traditional outlets. Mensah, (2017). Subsequently, there is also missing evidence needed to understand or explain factors that influence consumer food choices fully. For instance, Addo (2017) and Adam (2014) works from Table 1.

Empirical studies investigating consumers' actual decision-making processes in various real-life settings, particularly outside of controlled environments is scanty. Most existing research relies on surveys or hypothetical scenarios, which may not accurately capture consumer behaviour in natural dining situations. Studies are needed that utilize observational or experimental methods to explore consumers food choices in restaurants and other food service environments (Jung et al., 2015).

Geographically, the majority of research on food choice behaviour has been conducted in Western contexts, particularly in North America and Europe. There is a significant gap in understanding how cultural, economic, and environmental factors influence food choices in non-Western regions, such as Asia, Africa, and Latin America. More cross-cultural studies are required to understand the global diversity in food choice behaviours (Filimonau et al., 2018). However, in terms of spatial or geographical gap, the majority of research works available on consumer food choice at restaurants were conducted outside the West African context. For instance:

- Australia (Peters & Remaud, 2020),
- Americas (Hon, 2015),
- Asia (Chua, Karim, Lee & Han, 2020; Chang, Kivela & Mak, 2010),
- Europe (Chen & Antonelli, 2020; Filimanau & Krivcova, 2016) and
- Southern Africa (Okoro, Musonda & Agumba, 2016).

There is a difference in their culture, food, economy, purchasing power, etc, therefore a need to research in Ghana.

Leading to a spatial gap, this study sought to close this gap by expanding research efforts to include this underrepresented study area. In the context of the study area, Sekondi-Takoradi has become a magnet of success due to growth in several service industries including restaurants. Yet, research is absent, specifically on this geographical area on consumer food choices at restaurants. The few studies exploring the phenomenon are...

- Are we indeed what we eat? Street food consumption in the Market Circle area of Takoradi, Ghana. (Hiamey, Amuquandoh & Boison, 2013)
- Barriers to Adopting Healthy Eating Practices Among Roadside Automotive Repair Technicians in Takoradi, Ghana. (Brako, Bansah, Bosscher & Wilson, 2024)
- Assessment of Breakfast Eating Habits Among Students of Takoradi Polytechnic (Dzokoto & Damoah, 2018)

There is also a literature gap where the existing literature tends to focus heavily on traditional factors like price, taste, and convenience, often neglecting

emerging trends such as the impact of digital food ordering platforms, social media influence, and sustainability concerns. The determinants of restaurant food choice have long captured the attention of researchers. However, the paradoxes and cohesions in findings suggest that food choice in restaurants is multifaceted (e.g., Filimonau, Lemmer, Marshall & Bejjami, 2017; Stierand & Wood, 2012) which calls for studies at diverse levels and contexts of the restaurant food business industry. Despite the growing body of literature on consumer behaviour in the food and hospitality industry, there remains significant unexplored territory regarding the factors influencing restaurant choice and food selection. There is a need for a more comprehensive literature review that includes these modern influences on food choice, as well as interdisciplinary studies that incorporate insights from psychology, sociology, and environmental science (Medeiros & Salay, 2013).

Table 1: Studies Related to Restaurant Food Choice in Ghana

Author	Title
Adam I., Hiamey S. E. & Afenyo E. A. (2014)	Student's safety concerns and choice of eating place in Ghana.
Adzovie D. E., Eshun E. & Gborsong (2019)	Advertising on food choice: A study of bank workers in Ghana.
Amuquandoh F. E & Asafo-Adjei R (2013)	Traditional food preferences of tourists in Ghana
Sarkodie N. A, & Commey V. (2022)	Determinant factors of customers' choice of Formal full-service restaurant in Ghana.
Omari R., & Frempong G. (2016)	Food safety concerns of fast-food consumers in urban Ghana.
Boafo J., Sarku R., & Obadei J (2020)	From the kitchen to fast food restaurants: The changing culture of food in urban Ghana.
Mensah C., & Agboka J A (2017)	Selection of traditional catering establishments in Ghana: Diners' perspectives
Kalog G. L. S., Kasim F., Anyebuno B., Tei S., & Kabuga C. K (2022)	Food advertisement influences food decision making and not nutritional status: A study among University students in Ghana.

Table 1: Cont'd

Agyei-Amponsah, J., Owureku-Asare, M., & Katiyo, W. (2020).	Consumer food preferences and drivers amongst Ghanaians: Effect of the COVID-19 pandemic.
Addo E. C (2017)	Menu design and food choice among customers of upscale restaurants in the Accra metropolis.

Addressing these gaps can provide a more holistic understanding of consumer food choice behaviour and inform better strategies for food service providers across different regions and contexts. It can therefore be concluded that other factors also affect food choices in restaurants. Sobal, Bisogni, and Jastran (2014) noted that food choice in restaurants is multifaceted, contextual, dynamic, multilevel, integrated, and diverse. Therefore, the overly focus on the menu and all its forms (calories, nutrients, allergy) should be diversified to look at other potential factors (Seo & Lee, 2021). The current study will address this gap by focusing on the multi-dimensional nature of food choice and related factors influencing food choice in restaurants from the perspective of a developing country; specifically, Ghana.

Research Questions

The study is guided by these research questions:

1. What restaurant-related factors influence the choice of restaurants in Takoradi?
2. What food-related factors influence consumers' choice of food in restaurants in Sekondi-Takoradi?
3. What person-related factors influence consumers' choice of food in restaurants in Sekondi-Takoradi?

4. What socio-cultural factors influence consumers' choice of food in restaurants in Sekondi-Takoradi?
5. What types of food are consumed in restaurants in Sekondi-Takoradi?

Research Objectives

The general objective of the study is to analyse the factors that influence consumers' food choices of restaurants in Sekondi-Takoradi. The specific objectives are to:

1. examine the factors influencing the choice of restaurants in Sekondi-Takoradi;
2. examine the food-related factors influencing the choice of food in restaurants in Sekondi-Takoradi;
3. examine the person-related factors influencing the choice of food in restaurants in Sekondi-Takoradi;
4. examine the socio-cultural factors influencing the choice of food in restaurants in Sekondi-Takoradi;
5. examine the types of food consumed in restaurants in Sekondi-Takoradi; and
6. evaluate the relationships between food choice factors, restaurant choice factors and types of food consumed in Takoradi.

Hypotheses of the Study

The study was guided by the following hypotheses based on the study's objectives and conceptual framework.

H₁: There is no significant relationship between the consumers' socio-demographic characteristics of consumers and restaurant-related factors;

H₂: There is no significant relationship between the socio-demographic characteristics of consumers and food-related factors;

H₃: There is no significant relationship between the socio-demographic characteristics of consumers and person-related factors;

H₄: There is no significant relationship between the socio-demographic characteristics of consumers and socio-cultural factors;

H₅: There is no significant relationship between the socio-demographic characteristics of consumers and the types of meals consumed;

H₆: There is no significant relationship between restaurant-related factors and types of meals consumed;

H₇: There is no significant relationship between the food choice factors and the types of meals consumed;

H₈: There is no significant relationship between the types of meals consumed and restaurant categories;

H₉: There is no significant relationship between the types of meals consumed and meal occasions;

H₁₀: There is no significant relationship between meal options and meal occasions;

H₁₁: There is no significant relationship between meal occasions and restaurant categories; and

H₁₂: There is no significant relationship between meal option and restaurant categories.

Significance of the Study

The findings of the study are relevant both in theory and practice. Food choice has become an important topic for both policymakers and academicians due to the vital role food choice plays in national economies (Nestle & Wing, 2011; Verbeke, 2008; Rozin, 2006). It is important therefore to look at people's food choices in restaurants to understand what factors influence restaurant choice and food choices in restaurants. The outcome, therefore, will be threefold.

First, it will make a theoretical contribution by studying the factors that influence food choices in restaurants thereby contributing to filling the gap of knowledge on food choices in restaurants in a developing country. Studies into factors influencing food choice have been done in Western countries (particularly America, Canada, and Europe) with less attention, however, being paid to developing countries in Africa which have different socio-cultural settings.

Theoretically, the research contributes to a deeper understanding of the factors influencing food choices, especially within the context of the restaurant industry. It highlights the multidimensional nature of food choice, encompassing sensory appeal, social interaction, variety-seeking behaviour, natural content, mood enhancement, physiological needs, and consumer knowledge. These insights enrich

the existing literature by providing a comprehensive framework for analyzing food choice behaviour in the specific socio-cultural context of Takoradi, Ghana. The current study will address this gap by focusing on the multi-dimensional nature of food choice and factors influencing food choice from the perspective of a developing country; specifically, Ghana. Also, the major theories (Rational Choice Theory, Social Cognitive Theory) and models (Attitude Social Influences and Self-Efficacy model, Food Choice Process Model and Health Belief Model) underpinning this study have been applied to food choice outside the restaurant setting. Their applicability to food choice in restaurants will be the theoretical contribution of this work.

Secondly, consumer preferences are important for sustainable marketing purposes (Cheng, Wu, Tsai, Chang et al., 2020). In a restaurant, the choices consumers make are reflections of their behavioural, cultural, personal, psychological, psychographic, and social factors. Therefore, by understanding how these factors influence the taste and preferences of consumers, restaurant operators can segment consumers and reach out to them with appropriate marketing strategies, which will contribute to the success of their operations (Su, 2015). It will also help these restaurant operators to understand what factors account for food choices at their establishments and provide information that will enable food service providers to better understand the nutrition needs of their consumers to ensure healthy foods and to take the necessary actions to improve if necessary, thereby contributing to the debate on whether restaurant operators should be

compelled to offer only healthy food options on their menus or not or the choice of what to eat should still be left in the hands of the consumer.

Practically, the findings are valuable for policymakers, restaurant operators, and marketers. Policymakers can use these insights to develop strategies that promote healthier eating habits, address food safety concerns, and cater to the sensory and social preferences of consumers. For restaurant operators, understanding these factors can guide menu development, marketing strategies, and customer engagement practices. By aligning their offerings with consumer preferences, restaurants can enhance customer satisfaction and loyalty. Moreover, marketers can leverage these insights to create targeted campaigns that resonate with consumers' motivations and values, ultimately driving business growth.

Thirdly, it will provide information to public health officials who are interested in how food choice impacts the health of the population and how to come out with policies that target healthy eating since it will give an idea as to why people eat what they eat when they eat outside the home.

Organisation of the Thesis

The study was organised into nine chapters. Chapter One looked at the introduction to the study and discussed issues such as the background to the study, the research problem, the objectives of the study and the significance of the study. The second chapter focused on the theoretical and conceptual frameworks of the study. Specifically, the Rational Choice Theory, Social Cognitive Theory, Attitude Social Influences and Self-efficacy Model, Health Promotion Model, Food Choice

Process Model, and Models of Factors Influencing Food Preference and Food Choice were explained and related to the study. The conceptual framework for the study was presented in the chapter. Chapter Three of the study was on the empirical review relating to food choice. Issues discussed in this Chapter included restaurant choice factors, food-related factors, person-related factors and socio-cultural factors influencing food choices.

Chapter Four of the study centred on the methodology that was used to carry out the study. This chapter discussed the description of the study area, the research philosophy guiding the study, the research approach, and the research design that was employed in the study. Other issues covered in the chapter were the target population, sample size, sampling procedure, research instruments, methods of data collection, and data analysis techniques.

Chapter Five was on the results and discussion of the socio-demographic characteristics of consumers and the factors influencing restaurant choice. The chapter also discussed the difference in restaurant choice factors by socio-demographic characteristics of consumers and restaurant type. Chapter Six centered on the results and discussions of factors influencing food choice. The chapter further discussed the results on the relationships between the socio-demographics of the consumers and food choice factors.

Chapter Seven looked at the results of the types of meals consumed at the restaurants. Issues covered in this chapter included the relationship between the socio-demographic characteristics of consumers and the types of meals consumed. Chapter Eight focused on the relationship between restaurant choice factors, food

choice factors and types of meals consumed. The final presents (Chapter Nine) the summary, conclusion, and recommendation of the study.

CHAPTER TWO

CONCEPTUAL AND THEORETICAL REVIEW

Introduction

This chapter presents the concepts, theories and conceptual foundations of food choice. The chapter reviews the concept of eating out and the reasons for eating out, the concept of restaurants and the history of restaurants, the concept of food choice and its various dimensions. This chapter also examines the relevant theories and models that explain food choice behaviour, such as rational choice theory, social cognitive theory, attitude social influences and self-efficacy model, health promotion model, food choice process model and framework of factors influencing food choice. It ends with a description of the conceptual framework that guides the study.

The Concept of Eating Out

A conceptual review on eating outside the home explores various dimensions that influence the phenomenon, incorporating sociocultural, economic, psychological, and health-related factors. Each nation has its definition of eating outside the home. Eating outside the home is the cheapest way to eat, hence people from lower socioeconomic levels will practice it in some countries while it is viewed as a luxury in others. There has also been evidence of inconsistency in the terminology and meaning of eating outside the home. Many publications that seek to define Eating outside the home mention restaurants; nevertheless, some authors

opt to define Eating outside the home by following with the word "restaurant" (Kasparian, Mann, Serrano & Farris, 2017).

Eating outside the home therefore refers to the consumption of meals in settings other than the household, including restaurants, cafes, fast food outlets, and workplace canteens. Over time, eating out has altered. Bars, restaurants, lunch counters, snack bars, and buffets are just a few of the concepts that are currently offered. As a result of lifestyle modifications, eating outside the home is occurring more frequently (Choi, Kim, and Yoon, 2011). Numerous social, human, environmental, financial, biological, and/or psychological variables, as well as the distinctive cultural traits of each country or location, have an impact on these changes (Janssen, Davies, Richardson, & Stevenson, 2017). Understanding why and how people eat outside the home is crucial for various stakeholders, including health policymakers, the food industry, and urban planners.

The tradition of eating out dates back to 1725 and has evolved significantly over time. The shift from home-cooked meals to dining out has been influenced by factors such as urbanization, rising disposable incomes, and changing lifestyles. Historically, dining out was considered a luxury, but it has since become a common aspect of daily life in many societies. In ancient Rome, eating outside the home was already prevalent, with customers visiting *tabernae* and *popinae* (Kelsey, 1991). Taverns emerged during the Middle Ages (11th–12th centuries), primarily offering alcoholic beverages. The oldest restaurant still in operation, Casa Botín, opened in 1725 in Madrid, Spain (Oldest Restaurant, 2021). The second-oldest restaurant was established by the renowned chef Boulanger in Paris, France, in 1765 (Oldest

Restaurant, 2021). "The Physiology of Taste," authored by Jean Anthelme Brillat-Savarin in 1825, was the first culinary treatise on food to be approached philosophically. According to him, a decent restaurant should have an elegant setting, friendly service, upscale fare, and an amazing wine selection. The previous executive chef of the Conde de Provenza, Antoine Beauvilliers, held them at La Grande Taverne of London, although Boulanger lacked them (Lachat et al., 2012). The First Michelin Guide (Oldest Restaurant 2021) states that EOH was also connected to the requirement for travel.

There are also sociocultural factors of eating outside the home such as social interaction, cultural norms and preferences, and food culture and identity (Rozin, 2006).

- **Social Interaction:** Eating out is often associated with social gatherings, celebrations, and business meetings. It serves as a platform for social interaction and bonding.
- **Cultural Norms and Preferences:** Different cultures have unique eating-out habits. For instance, in some cultures, communal dining is prevalent, while in others, quick-service restaurants are more popular.
- **Food Culture and Identity:** Dining out is linked to food culture and identity, with individuals often choosing restaurants that reflect their cultural preferences or social status.

According to Mela (2001), eating outside the home has also been reviewed through economic factors such as:

- **Income and Expenditure:** Economic status significantly influences the frequency and type of eating out. Higher incomes often correlate with more frequent dining at upscale restaurants, while lower incomes may lead to more visits to fast food outlets.
- **Price Sensitivity:** Consumers' sensitivity to price affects their choice of dining locations, menu selections, and frequency of eating out (Mela, 2001).

Another dimension that influences the phenomenon of eating outside the home are psychological factors (Kant & Graubard, 2004)

- **Convenience and Time Pressure:** Modern lifestyles characterized by busy schedules and time constraints make eating out an attractive option for convenience.
- **Emotional Eating:** For some, dining out is linked to emotional states, such as stress relief, celebration, or comfort.
- **Variety Seeking:** The desire to try new cuisines and experiences also drives people to eat outside the home.

Health and nutrition considerations (Steenkamp, 1993) have influenced what people eat outside the home and whether it promotes healthy eating.

- **Nutritional Content:** Meals eaten outside the home are often higher in calories, fats, sugars, and sodium, which can contribute to health issues like obesity and heart disease.

- **Public Health Implications:** The rise in eating out has significant public health implications, necessitating interventions such as nutritional labelling and healthier menu options.
- **Dietary Choices:** Consumers may make different dietary choices when eating out compared to eating at home, influenced by factors like portion sizes, food marketing, and peer behaviour.

Eating outside the home has technological and environmental influences (Verbeke, 2008).

- **Digital Platforms:** The rise of food delivery apps and online reviews has changed how people choose where and what to eat outside the home.
- **Sustainability:** Growing awareness of sustainability has led some consumers to choose restaurants that prioritize eco-friendly practices, such as sourcing locally or reducing food waste.

The review highlights that eating outside the home is a multi-faceted behaviour influenced by a complex interplay of sociocultural, economic, psychological, and health-related factors. Further research could explore the impact of emerging trends such as plant-based diets, sustainability, and the post-pandemic dining landscape on eating-out behaviours. This conceptual review outlines the various factors influencing the decision to eat outside the home, offering a holistic understanding of the phenomenon. (Verbeke, 2008; Rozin, 2006; Kant & Graubard, 2004; Mela, 2001; and Steenkamp, 1993).

Reasons for Eating Out

As eating out has progressively become more central to people's lives, several noteworthy driving forces have surfaced. To better meet the high expectations and underlying motivations of their customers, businesses are spending resources and renovating their eateries. The reasons why people eat out are varied. They include but are not limited to the reasons discussed below.

Hedonic and Utilitarian Values

Perceived value is understood as the difference between customers' overall perceptions of the benefits and costs of a product or service (Kasparian, Mann, Serrano, & Farris, 2017). Previous research has explored both the hedonic (recreational and experiential aspects) and utilitarian (functional and cognitive components) dimensions of customer value based on consumers' dining experiences (Babin, Ryu, Han, & Jang, 2010; Okada, 2005; Darden & Griffin, 1994). Hirschman and Holbrook (1982) highlighted the importance of sensory channels in hedonic consumption, describing it as consumers' multisensory fantasies, images, and emotional arousal when using products. While the instrumental, functional, and task-related aspects of consumer value arise from the conscious pursuit of specific outcomes, the utilitarian dimension is derived from these functional qualities (Ha & Jang, 2010).

Atmospheric Issues

Kotler (1973) suggested that the atmosphere in a retail environment, as an ambient dimension of stimuli, influences consumers' emotional states and enhances their satisfaction and behavioural intentions. Similarly, Bitner (1992) noted that

attitudes toward environmental factors significantly affect both customer and employee satisfaction. Walls, Okumus, Wang, and Kwun (2011a, p. 10) further stated that businesses, in an effort to influence consumers, enhance the physical environment to engage all five senses and create an atmosphere that aligns with their marketing goals. That is, good management of an operation's atmospheric components can enhance consumers' emotional responses, which in turn promotes favourable attitudes and impressions of the company. Prior research (e.g., Lin & Mattila, 2010; Magnini & Thelen, 2008) have confirmed that atmospherics have a major impact on restaurant performance, customer happiness, and loyalty within several restaurant segments. Because of this, one of the plausible reasons that consumers of restaurants choose to eat out is the ambiance.

Subjective Well-Being

One of the key new trends in eating out has been recognized as subjective well-being (Shin, 2009). Subjective well-being, also known as well-being, is the total assessment of a person's existence concerning desirable psychological and physiological qualities. According to Lee, Sirgy, Larsen, and Newell (2002), well-being generally refers to emotional and cognitive assessments of one's life and satisfaction in a variety of life subdomains, such as health, leisure, and food.

The Concept of Restaurant

Restaurants are important to our setting, eating out is a common social activity that offers a wide range of menu options, ambience, pricing, and service approaches to accommodate a variety of preferences and occasions. Restaurants are

not only about serving food but also about creating memorable experiences for their customers (Gustafsson, Öström, Johansson & Mossberg, 2006; Finkelstein, 1989).

A restaurant is a business establishment that prepares and serves food and beverages to customers in exchange for money (Hansen, Jensen, & Gustafsson, 2005; Walker, 2021). Restaurants often specialize in specific cuisines, such as Italian, Chinese, Mexican, Indian, etc. The type of cuisine a restaurant offers can greatly influence its decor, ingredients used, and overall dining experience according to Andersson and Mossberg (2004). However, there are different types of restaurants that offer varying service styles, such as fine dining, casual dining, fast-casual, fast food, and more. Service styles dictate the level of formality, customer interaction, and overall experience. The choice of service style in a restaurant plays a significant role in shaping the overall dining experience and setting the tone for interactions between staff and customers (Batat, 2021; Kim & Moon, 2009).

Furthermore, fine dining is a classy and upmarket service style that provides an elevated eating experience distinguished by great attention to detail, fine cuisine, an opulent setting, and flawless service (DeJean, 2007; Fox, 2003). For customers looking for outstanding food, presentation, and general hospitality, this service style seeks to offer a memorable and elegant dining experience. Whereas, according to Canny (2014), casual dining restaurants are types of a restaurant, which is designed to attract people who wants to eat away from home. Fast-casual dining is a popular restaurant service style that combines elements of quick service with higher-quality ingredients and a more relaxed dining atmosphere (Hoffman, 2014;

Siemering, 2004). It, however, bridges the gap between fast food and casual dining, offering a convenient yet elevated dining experience.

The culinary landscape has witnessed a transformative journey propelled by the emergence of fast-food restaurants. In the tapestry of modern dining, these establishments occupy a unique position, emblematic of both culinary evolution and profound cultural change. According to a study by Line and Hanks (2020), fast food restaurants are distinguishable by their pronounced emphasis on efficiency, convenience, and standardized offerings, a defining triad that has redefined the very notion of dining. Yet, their impact transcends the realms of gastronomy, intricately weaving into the fabric of contemporary lifestyles (Pagano, 2023; Saras, 2023). At the heart of this influence lies the remarkable significance that fast food restaurants embody while conventionally perceived as sustenance providers, their role extends far beyond mere nourishment. These establishments have seamlessly transitioned into social spaces where people converge, economic drivers contributing to local and global economies, and powerful markers of globalization's influence on consumption patterns (Light & Miskelly, 2015).

History of Restaurants

The concept of serving meals to consumers outside of their homes has evolved over centuries, leading to the modern dining establishments that have been conceptualized as restaurants as it is known today.

The origins of communal dining can be traced back to ancient civilizations such as ancient Rome, Greece, and China where inns and taverns provided

travellers with food and shelter, serving as early precursors to restaurants (Ozouf, 1991; Carroll, & Wheaton, 2009; Beardsworth, & Bryman, 1999). Literature has established that in the historical trajectory of culinary practices, a pivotal juncture emerged during the Middle Ages that laid the foundation for the modern concept of public dining spaces (Ferguson, 2006; Goody, 1982; Smith, 2009). This developmental phase, deeply rooted in Europe, witnessed the inception of communal eating establishments that extended hospitality beyond the confines of private homes. In addition, Monasteries and religious institutions played a prominent role during this era, assuming the responsibility of offering nourishment to both weary travellers and devout pilgrims (Dietz, 2010). This practice of providing communal meals served as a precursor to the restaurants that would later flourish in various forms.

The 18th century in France is regarded as a crucial period in the history of cuisine since it saw the beginning of the term "restaurant" in its contemporary sense (Ferguson, 2006). According to the literature, a brilliant businessman by the name of Boulanger, whose trailblazing institution radically changed the eating landscape, was at the centre of this transition. It originated in 18th-century France and was derived from the French word "restaurer," which means "to restore" or "to refresh." The term "restaurants" or "restoratives" originated with Boulanger's business, which promoted nourishing soups and broths for their health benefits (Bendele, 2015; Gisslen, 2018; Knodel, 2019; Johansson et al., 2006). This innovation marked a distinct departure from the conventional tavern-style dining of the era, creating dedicated spaces solely intended for the enjoyment of meals. The

emergence of a la carte menus, a practice that gave customers the freedom of choice by providing a variety of items to choose from, had a resounding effect on this progression since it allowed for the creation of restaurants that promoted interactive eating experiences that catered to individual preferences (Finkelstein, 1989; Hunt, 2013; Ozouf, 1991).

The claim that the history of restaurants is irrelevant depends on the context of the discussion. However, dismissing the history of restaurants entirely overlooks several key factors that are crucial for understanding modern dining experiences and customer behavior (Mennell, 1996). There are some reasons why the history of restaurants is relevant. For instance, the history of restaurants reveals how dining concepts have evolved, from inns and taverns catering to travelers to the emergence of fine dining establishments, fast food chains, and contemporary casual dining. Understanding this evolution helps explain current trends, consumer expectations, and the diversity of dining experiences available today.

Restaurants have also played a significant role in shaping cultural practices, social norms, and community interactions. The development of restaurants reflects broader societal changes, such as urbanization, industrialization, and globalization. Recognizing this helps in understanding how cultural values influence dining preferences and customer behaviour. The restaurant industry's history showcases patterns of innovation, such as the introduction of menus, standardized recipes, and franchising. These innovations are responses to changing consumer needs and technological advancements. Analyzing these historical shifts can provide insights

into how the industry adapts to challenges, such as the recent impact of the COVID-19 pandemic.

Again, restaurants have long been a significant part of the economy, affecting employment, supply chains, and urban development. The history of restaurants illustrates how the industry has contributed to economic growth and how it has been shaped by economic conditions. This historical perspective can be crucial for understanding the economic role of restaurants today. The history of restaurants also reveals how consumer behavior has changed over time. Studying past dining habits, preferences, and trends helps us understand current consumer expectations and the factors that drive customer satisfaction, loyalty, and spending (Pitte, 2002). Furthermore, historical analysis shows how restaurants have facilitated the exchange of culinary traditions across cultures. This exchange has led to the development of fusion cuisines, the global spread of certain food trends, and the localization of international food concepts. Understanding this historical context enriches our appreciation of the diverse culinary landscape in today's restaurants (Spang, 2000).

In conclusion, while it may seem that the history of restaurants is irrelevant when focusing on current trends or specific business strategies, understanding this history provides valuable insights into the origins of modern practices, consumer expectations, and industry dynamics. It offers context for why the restaurant industry operates as it does today and how it might evolve in the future. Therefore, dismissing the history of restaurants entirely would overlook the rich background that shapes the contemporary dining experience.

The Concept of Food Choice

Food choice has received attention from both researchers and policymakers. Various academic disciplines such as nutrition, food science, psychology, anthropology, sociology, marketing, and other branches of natural and social sciences have examined this topic extensively. The concept of consumer food choice is inherently complex. It is a composite of food-related behaviours such as liking, preference, choice, and intake. In terms of definitions, food choice is seen as “the process through which people feel, think, and eat food” (Roudsari, et al., 2017, p. 241).

Herne (1995, p. 13) describes food choice as a series of both conscious and unconscious decisions made by an individual, either during consumption, at the point of purchase, or at any moment in between. The Food Standards Agency (FSA, n.d.) defines food choice as "the selection of foods for consumption, which results from the competing, reinforcing, and interacting influences of a variety of factors." Additionally, Roudsari et al. (2017, p. 241) describe it as “the process through which people feel, think, and eat food.” Though there are varied perspectives to what the concept of food choice is as reflected in the definitions provided, it can be deduced that there are cognitive and affective aspects in the process.

Thus, food memories shape our eating habits and preferences throughout our lives. For instance, the foods we tasted as children or in specific places can influence what we choose to eat later and how open we are to new flavours (Enriquez & Archila-Godinez, 2021). Therefore, even simple things like the name

of a product can trigger associations and affect our perception of its quality or healthiness (Leng, et al., 2017).

Dimensions of Food Choice Behaviour

Numerous studies examined various aspects of food choice from a wide range of disciplines and perspectives (Booth, 1994; Glanz et al., 1992; Mennell et al., 1992; Axelsson & Brinberg, 1989; Shepherd, 1989, 1990; Thompson, 1988; Murcott, 1983). Food choice behaviour is predicated on two broad anchors: food liking and food preference, which are further shaped by three main themes. These are person, food, and socio-cultural (Petre & Mirea, 2023; Martinho et al., 2022). Shepherd (2001) put these factors into three main groups: product-related factors, consumer factors and environmental factors. Hough and Sousa (2015) lend credence to this function by also placing the determinants of food choice into three broad categories: the individual, food, and the food environment context.

At the individual level, sociocultural, psychological, and physiological factors are known to have direct or indirect effects on food consumption behaviour. The food itself provides sensory attributes like flavour, aroma, texture, and appearance, while the environment introduces cultural, social, economic, and physical influences. Analysing these determinants of food choice reveals that food selection is a complex behaviour, shaped by multiple factors influencing the decision-making process (Nystrand & Olsen, 2020; Köster, 2009).

Food liking highly influences food choice (Boesveldt, Bobowski, McCrickerd, Maitre, Sulmont-Rosse, & Forde, 2018; Boesveldt, & de Graaf, 2017). Food liking looks at how tasty or palatable food is or the delight one gains

from ingesting a specific food (Berridge, 2007; Giesen et al., 2010). It is the assessment of the quality of food (Franchi, 2012). The quality of food is intricately linked to its sensory characteristics (Garcia-Bailoet al., 2009; Lawless & Heymann, 2010). This is because liking is associated with the basic taste qualities; sweet, sour, bitter, salty, umami, and fat (Keast & Costanzo, 2015; Running, Craig, & Mattes, 2015). There is a close link between liking and preference resulting in both terms being used interchangeably. The link is seen in the description of food preference by Concas, Catamo, Biino et al. (2019, p.64). They describe food preference as level of liking for specific foods and beverages by people. The “level of liking” connotes a rating of one food item over another based on several factors.

Preference refers to the selection of one food item over another (Chang, Kivela, & Mak, 2010). It is people's evaluative attitude towards food (Meiselman & Bell, 2003). Many factors affect food preferences. These include individual characteristics, food, and the environment, which could be cultural, political, social, or geographical (Seo, Yun, & Kim, 2017). Individual differences are particularly important in food preferences. Individuals perceive the sensory properties (visual, auditory, olfactory, tactile, and gustatory) of food differently because of biological and psychological factors. These are both present in the life course of individuals.

Biologically, people's preferences for food based on their sensory properties change with age. For example, texture perception (tactile, visual, and auditory sensations) affects texture preferences (Jeltema, Beckley, & Vahalik, 2015, 2016). Preference for specific texture characteristics changes during an

individual's lifetime course in keeping with developments in the mouth muscles, jaw, and teeth as well as innervation of taste buds (Laureati, Sandvik, Almlie, et al., 2020; Lukasewycz & Mennella, 2012; Zeinstra, Koelen, Kok, & de Graaf, 2010). The psychological factor is primarily due to our learned behaviour which influences food preference. Learning occurs throughout an individual's life course although much occurs during childhood (Koster, 2009). Oval and Hansen (2014) postulate that food preferences are acquired from four learning situations.

One important attribute of food that encapsulates all the other considerations in food preferences is the value of food, which is the second component of preference. Every consumer has his/her perceptions about food (Lusk & Briggeman, 2009), which are informed by the value of the food to them. Food value is the characteristics of food products (Dagevos & van Ophem, 2013). Research by Bazzani, Gustavsen, Nayga, and Rickertsen (2018), as well as Lusk (2011) and Lusk & Briggeman (2009), indicates that consumers value food based on a variety of factors, including its image, sensory properties, taste, healthiness, nutrition, origin, price, cultural appropriateness, tradition, specific food labeling, food safety, naturalness, convenience, fairness, appearance, environmental impact, novelty, and animal welfare. All these factors potentially affect food preferences.

The third component that influences food preference is the food environment. The food environment determines what is available and accessible and this can predict healthy or unhealthy eating behaviours (Alexander, Cao, & Alfonso, 2021). One of the most significant environmental issues affecting food preference is the social milieu and culture of the consumer. People are socialized

in diverse cultures/societies and the distinct traditions and cultures that affect their cuisine (Montanari, 2006). Therefore, their preference is a consequence of what they have been introduced to. In addition to culture, the social environment in terms of how people react to a product affects their preference (Jansson-Boyd, 2010; Hoegg & Alba, 2007; Siegrist & Cousin, 2009).

Negative associations with a product also affect their preference. Another environmental influence on food preferences is the dictate of the geographic elements such as weather and soil conditions on what is available in one geographic region. Geographic zones may have similar or the same food products; however, the culture or tradition of the place normally influences the processing and cooking methods available thereby giving each cuisine a unique and distinct flavour and taste (Risvik, Rødbotten, & Olsen, 2006; Vabø & Hansen, 2014).

Food choice has caught the attention of policymakers on the one hand who are primarily concerned with public spending and food service companies on the other hand who seek to understand consumers for marketing purposes (Marinelle, Simeone, & Scarpato, 2015). Knowledge of the choice factors and emotional connections to these factors affect the choice. On the supply side, Mak et al., (2012) state that food choice creates the demand for all the players in the food industry from producers through processors to distributors.

Food choices change over the life of a person, therefore, dynamic. But are made daily through a conscious decision-making process that may not seem so and depends on individual experiences (Franchi, 2012). Vabo and Hansen (2014) noted that people's food choices do not stem from preferences only but are further shaped

by a network of social structures. Hence, the choices made are cumulative. Thus, the arbitrariness in a person's daily food choices is necessarily so (Koster, 2009). There are several factors that a consumer considers when making food choices.

What one might find with these factors is that they are the same as the factors that influence food preferences. Thus, the bottom line is that food preferences, which are shaped by food liking, affect food choice.

Importantly, food preference is only one factor that shapes food choice. In recent times the focus has been on animal welfare, food safety and environmental impact (Olynk, Tonsor, & Wolf, 2010). However, because of the situational or momentarily nature of food choices, sensory characteristics, health, convenience, and price become especially important (Franchi, 2012; Fotopoulos et al., 2009; Ares & Gámbaro, 2007; Scheibehenne et al., 2007). All said, one will also find that the availability of food could be the most critical point in making food choices. It is an important moderator in food choice (Valo & Hansen, 2014). What is unavailable cannot be consumed.

Rozin (2006) posits that "liking is a key determinant of preference, which in turn significantly influences food intake; however, many other variables also play a role in this relationship (p.24). Liking has to do with some quality of the food that is found to be one of the foundations of food preferences. In the case of preferences and choice, there is some interplay between the factors affecting food preferences and food choice (Wądołowska, Babicz-Zielińska, & Czarnocińska, 2008).

Theoretical Foundations of the Study

Food choice is a complex phenomenon (Ran et al., 2022; Gombert, Douglas, Carlisle, & McArdle, 2017), hence a single theoretical framework cannot explain it. Therefore, several theories are required to understand the underlying factors (Murcott, 1995). This section discussed the rational choice theory, social cognitive theory, attitude social influences and self-efficacy model, health promotion model as well as food choice process model and framework of factors influencing food choice. The theories and the framework that were reviewed informed the study's conceptual framework.

Rational Choice Theory

The rational choice theory (RCT) explains human behaviour in decision-making. It is argued by rational choice theorists that people make choices based on their optimal utility, regardless of the situation. According to Eriksson (2011), William Riker is credited with developing this notion. Although the theory is well-known in economics, it has also been applied across various social disciplines, including sociology, geography, psychology, and tourism. From an economic standpoint, there are two major assumptions underpinning RCT. The first is that people are heterogeneous about preferences and secondly, human rationality is not always self-centred preferences but that of other people may come in (Fehr & Fischbacher, 2002).

Driscoll and Krook (2012, p.197) explain how RCT theorists link micro-level intentions with macro-level events and processes. They argue that RCT theorists focus on how individuals make choices based on their expectations about

the actions of others under risk and constraints. Thus, key issues addressed by RCT are the rationality of individuals, preferences, risks, constraints, and utility maximisation. Individuals have unfettered freedom of choice and are in turn responsible for the consequences of those acts (Zhao, Wang, Zhang, & Zhao, 2021). Yet within this unlimited liberty lies a limited and well-known set of preferences in an unpredictable world (Muntanyola-Saura, 2014). Considering these assumptions, individuals are assumed to have preferences in the choices they make and that these preferences are complete and transient. Also, these preferences are thought about, compared, and ordered and fit together in a connected manner (Lovett, 2006; Hindmoor, 2011). Thus, there is a cost-benefit appraisal of alternative courses of action with each action most useful (Green, 2002; Paternoster, Jaynes, & Wilson, 2017).

The theory is critiqued on its assumptions about human behaviour being unrealistic. RCT ascribes rationality to all human behaviour which is unrealistic because some actions are not rational due to weak will, habit or convention or uncertainties about choices and information asymmetry (Driscoll & Krook, 2012; Kabeer, 2000). Another critique is that RCT being an economic theory assumes that individuals make rational choices and thereby have stable preferences, which allow for description and forecasting (van der Veer, 2012). In the area of economics, there is a general rule that economic theories should not model human behaviour outside market institutions (Lehtinen & Kuorikoski, 2007). In food choice, it will be simplistic to assume that all the choices are influenced by economic decisions of how much is going to be paid. Although this could be one of the reasons, several

factors lead to food preferences. What may seem irrational can be classified as rational if there is a good reason to believe that the information that was used in making that decision was accurate at the time of the decision (Solz, 2009).

Social Cognitive Theory

The Social Cognitive Theory (SCT), a psychological theory put forward to explain human behaviour, especially in the context of how human learning occurs (e.g., Heerman, Taylor, Wallston, et al., 2017; Pesseau, Johnston, Francis, et al. 2014; Shin, Surkan, Coutinho, et al. 2015). It looks at the link between personal, behavioural, and environmental factors in predicting human behaviour and the changes that could take place (Bandura, 1989, 2004; Bao & Han, 2019).

The theory holds that human behavioural intentions are based not only on behaviour but also on cognitive and environmental factors (Boateng, Adam, Okoe, & Anning-Dorson, 2016). Thus, according to the proponent of the theory (Bandura, 1977, 1986), an individual's learning in a social setting can mould and dictate behaviour. This means a relationship exists between personal cognition, environmental elements, and human behaviour (Bandura, 1986; Zhou, 2024). Two cognitive constructs are important to the SCT: *outcome expectations* and *self-efficacy* (Zhou, 2024). Outcome expectations address an actor's expectations of a desired outcome when performing a task. At the same time, self-efficacy looks at the actor's ability to perform the task to achieve the expected result (Lee, Park, Lee, Kim, & Park, 2018; Lin & Hang, 2008). Thus, in human behaviour, the performer of the action must believe in his/her ability to perform that action and have certainty about the anticipated outcome (Bandura, 1997; Kim, Lee, & Elias, 2015).

The application of the SCT to food choice behaviour is enormous. The focus of a food choice study is how those choices affect health. Therefore, the main structures of the SCT could help explain human behaviour in food choices within the context of this study. For example, self-efficacy can be applied to healthy or unhealthy eating behaviour. Can people make choices that result in beneficial outcomes? Studies show that people with low self-efficacy tend to eat unhealthy foods while those with high self-efficacy tend to eat healthy (Fitzgerald, Heary, Kelly, et al., 2013; Murnan, Sharma, & Lin, 2007). The social environment also helps explain the support people receive in making those choices about health or unhealthy eating (Amiri, Ghofranipour, Ahmadi, et al., 2011; Krolner, Rasmussen, Brug, 2011; Kubik, Lytle, & Fulkerson, 2005). However, while this theory is passable in explaining the direct and indirect modelling of food behaviours and its role in shaping food choices and behaviours, the importance of the sociocultural and environmental impact on food choice behaviour is ignored.

Attitude Social Influences and Self-Efficacy Model

People's behaviour regarding food choice has also been explained by the Attitude, Social Influences, and Self-Efficacy model (ASE). In 2003, de Vries, Engels, Kremers, Wetzels, and Mudde presented the theoretical model. It combines the precaution adoption model (Weinstein, 1988), the trans-theoretical model (Prochaska & DiClemente, 1983), the SCT (Bandura, 1986), and the TRA (Fishbein & Ajzen, 1975). According to the ASE model, attitude, social influences (subjective norms and modelling), and self-efficacy, all have a role in how people behave (Lee & Wu, 2018; Verstraeten et al., 2014). In contrast to social influence,

which examines how behaviour is impacted by significant individuals, attitude is an individual's evaluation of a behaviour intention in terms of favourability or unfavorability (Babirye et al., 2011; Tan & Hung, 2006). SCT has been used to explain self-efficacy.

In food choice, all three cognitive factors are important. People's attitudes affect and shape negative or positive behaviour toward health and well-being. Increasingly, people are forming positive health attitudes towards what they eat. Thus, food choice decisions are shaped by the positive impact on health. The type and quantity of food consumed outside the home are impacted by this optimistic outlook. When they are away from home, some people have a natural tendency to try new things (like cuisine). The process involves value trade-offs (Ye, Soutar, Sneddon, & Lee, 2017). As a result, they will always try new foods as a part of the experience. However, those close to the person at the time of the decision may have influenced their perspective (Ajzen, 1991). People have sometimes bought food because of encouragement from important others or because they want to impress others. People's confidence in the actions they take while away from home is also a major function of what they consume. This factor explainable by the self-efficacy theory is embedded in the ASE model.

Health Promotion Model

The notion of health promotion model (HPM) was created by Pender in 1987. According to the HPM, people should follow certain strict guidelines when it comes to their diet and where they eat because doing so would help them stay healthy. According to the concept, a person's decision to conduct these acts is

controlled by five moderating factors, which in turn influence a person through seven cognitive-perceptual aspects. The five modifying elements, which comprise (i) demographic traits, (ii) biological characteristics, (iii) behavioural factors, (iv) interpersonal effects, and (v) situational factors are believed to have an indirect influence on behaviour. On the other hand, the seven cognitive-perceptual factors, which include (i) the importance of health, (ii) perceived control of health, (iii) perceived barriers, (iv) perceived benefits, (v) perceived self-efficacy, (vi) definition of health, and (vii) perceived health status are said to directly affect behaviour.

The model, which was created in the health sector and is typically used in areas like nutrition, exercise, and medicine, as reaffirmed and demonstrated by Grazin and Olsen (1997), also finds use in marketing, particularly in the areas of food marketing and food choice and consumption, as is the case in the present study. Thus, a number of the HPM's constructs, including demographics, biology, behavioural factors, interpersonal influences, situational factors, perceived control over one's health, perceived self-efficacy, perceived health status, and perceived barriers are explored. Food marketers who want to target this sizable consumer sector with healthy food menus will benefit greatly from having a complete awareness of these elements that influence food choices (Khan & Oyewole, 2014; Oyewole, 2013; Oyewole, 2007).

Food Choice Process Model

The factors and procedures that go into an adult's eating decision are captured by the model. Furst et al., created the food choice process model in 1996.

According to Sobal and Bisogni (2009), the variables and processes that contribute to explaining food choice are categorized under influences, life course events and experiences, and personal food systems.

Life-course refers to the experiences that come before decisions regarding what to eat, as well as to anticipation and expectations for the future. The term "life course" alludes to previous and present eating behaviours. Events and experiences that occur throughout a lifetime include trajectories, transitions, turning points, timing, and context. According to Furst et al. (1996), understanding trajectories, which are described as a person's persistent thoughts, feelings, strategies, and actions throughout a lifetime or as he or she approaches choice, such as family cuisine and food preferences is necessary to comprehending current patterns of food consumption. According to Devine et al. (1998), trajectories form in certain situational and historical circumstances that remain and display their momentum and continuity.

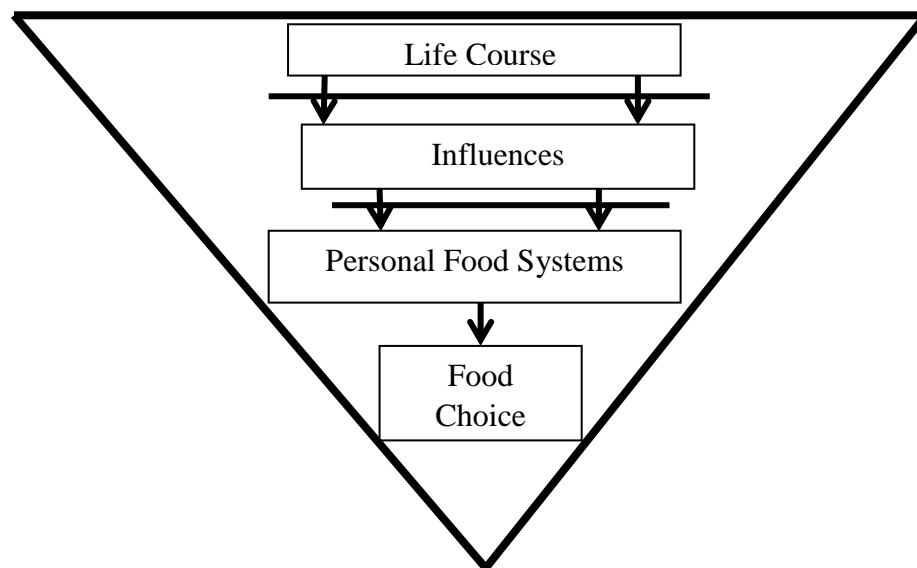


Figure 1: Food Choice Process Model

Source: Furst et al, (1996); Sobal and Bisogni, (2009)

The family is regarded as the most significant social and historical environment since it shapes a person's eating habits long after they leave their parents' house. To avoid blatant historical determinism, however, transitions are also considered, which are changes in a person's life that "lead to changes or solidify the continuation of behaviours, including food choice patterns or trajectories" (Sobal et al. 2006, p. 4). For instance, moving to a new place, getting married, changing your family, changing your job, and even altering your health or being unwell can all act as key transitions that disrupt your habits (Falk et al., 2000).

Turning points are also significant transitions that result in drastic reconstructions of food preferences, such as going from an unhealthy diet to rigidly adhering to a low-fat diet following heart surgery. When transitions for turning points take place, *timing* is also considered. The environments in which people live are referred to as *contexts*. On a macro level, these contexts include social, cultural, political, economic, and other factors that enable and restrict constancy and changes in the food choice trajectories of individuals. On a micro level, these factors include families, friends, schools, workplaces, communities, and other social and physical structures that influence food choice trajectories.

The five types of influences in Furst et al.'s (1996) model are cultural ideals, personal factors, resources, social context, and present/food situations. The symbolic connotations humans attach to food, such as social standing and whether a particular cuisine is seen as "proper food," are known as *cultural ideals*. Cultural ideals, according to Sobal and Bisogni (2009), are the taught set of guidelines, goals, and maps that a community adopts. They also serve as the benchmarks

against which people evaluate and label their food-related behaviours as "right," "normal," "inappropriate," etc. Cooking brings joy, security, and symbolic significance to some people who are more "food-centred" than others who have low "food salience" (Furst et al., 1996).

Personal factors are traits or qualities of people that affect their behaviour and food selection decisions. For instance, a person's personality, gender roles, sensitivity to food flavours, food preferences, and genetic propensity for disease. Here, resources are often referred to as the assets that people consider when choosing their diet. These resources can be categorized as either material (cash, furnishings, and space) or intangible (knowledge, abilities, and time in the kitchen). Both groups are thought to play a significant role in influencing people's decisions about where to eat and what to eat.

The *social framework* also discusses the network of interpersonal connections that might restrict or enhance individuals' food-related decision-making. It captures the character of social interactions, roles, and significance. Furst et al. (1996) believe that families are the most significant group of interpersonal ties that influence food choice because people "enact or are assigned household food roles" within families (Furst et al. 1996, p. 255). These duties could be in opposition to personal choices. Contexts are larger environments that have an impact on food decisions, such as social environments and physical environments. Social institutions shape economic conditions, governmental policies, and the media, while physical conditions include climate, physical structures, and other

material objects that either facilitate or limit food choice decisions (such as built environment infrastructure, structures, and objects).

The personal food system, the model's third component, examines how people interpret outside influences to determine what and how they eat in a particular circumstance. Personal systems are cognitive processes for food choice that guide eating behavior. Examples of these processes include the development of food choice values, the negotiation and balancing of food choice values, the classification of foods and situations, and the creation of strategies, scripts, and routines for recurring food decisions. The two main components of this are strategies and value discussions, which include assessing the relative benefits of numerous factors. According to Furst et al. (1996), six main values influence food choices: cost, quality, convenience, nutrition and health, and relationship management. Food choice values are the things that people consider when choosing what to eat (taste, cost, health, convenience, and relationship management), as well as the feelings or meanings that they attach to these things (for example, different people have different ideas about what "healthy eating" implies).

People categorize foods and circumstances into groups that they build depending on the properties of the food to make choosing foods easier. People use heuristics like prioritizing values (taste, cost, convenience, and health) to negotiate and balance conflicting values. Food decisions can be made more automatically or habitually by using tactics including removal, limitation, substitution, addition, modification, and routinization. Food choice scripts, also known as expectations, plans for acting, and specific sequences, are procedural information people have

for their eating behaviours in known contexts. They offer predictability and comfort. Personal food systems, as opposed to more distant influences and previous life experiences, are cognitive processes directly related to actual food behaviour. Strategies serve as a container for established routines or laws (Furst et al., 1996). The model developed by Furst et al. (1996) is used by Devine et al. (1998) to explain trends in fruit and vegetable intake. It has also influenced research on senior customers' food preferences (Falk et al. 1996) and newlywed couples' meal preferences (Bove et al. 2003).

The model tends to explain food choice comprehensively than the economic household model (Sobal et al. 2006). For instance, the importance placed on life histories contrasts with that of Becker's (1965) and Bonke's (1992) economic models, which do not explain with earlier behaviour or personal health. However, it seems insufficient to describe a person's life trajectory, influences, and dietary preferences. The model aims to be universal, but it hasn't been explicitly evaluated to see if it holds true across different country contexts. As acknowledged by Sobal et al. (2006, p. 2), "the components of the model are not mutually exclusive of each other because they overlap and interact," it is challenging to pinpoint the precise role played by each model component. Therefore, proving causation is difficult.

Models of Food Choice

Factors Influencing Food Preferences

One of the earliest models of food choice was presented by Randall and Sanjur (1981), and the model aimed to enumerate the variables that affect meal

choice. Three groups of these variables can be made: (1) the product (food), (2) the individual, and (3) the environment (or situational context). These three groups of variables are cited as determinants of food choices in the latter. Numerous features are included in each category of factors. However, it should be highlighted that Randall and Sanjur's (1981) model is mostly descriptive and lists variables rather than identifying causal linkages.

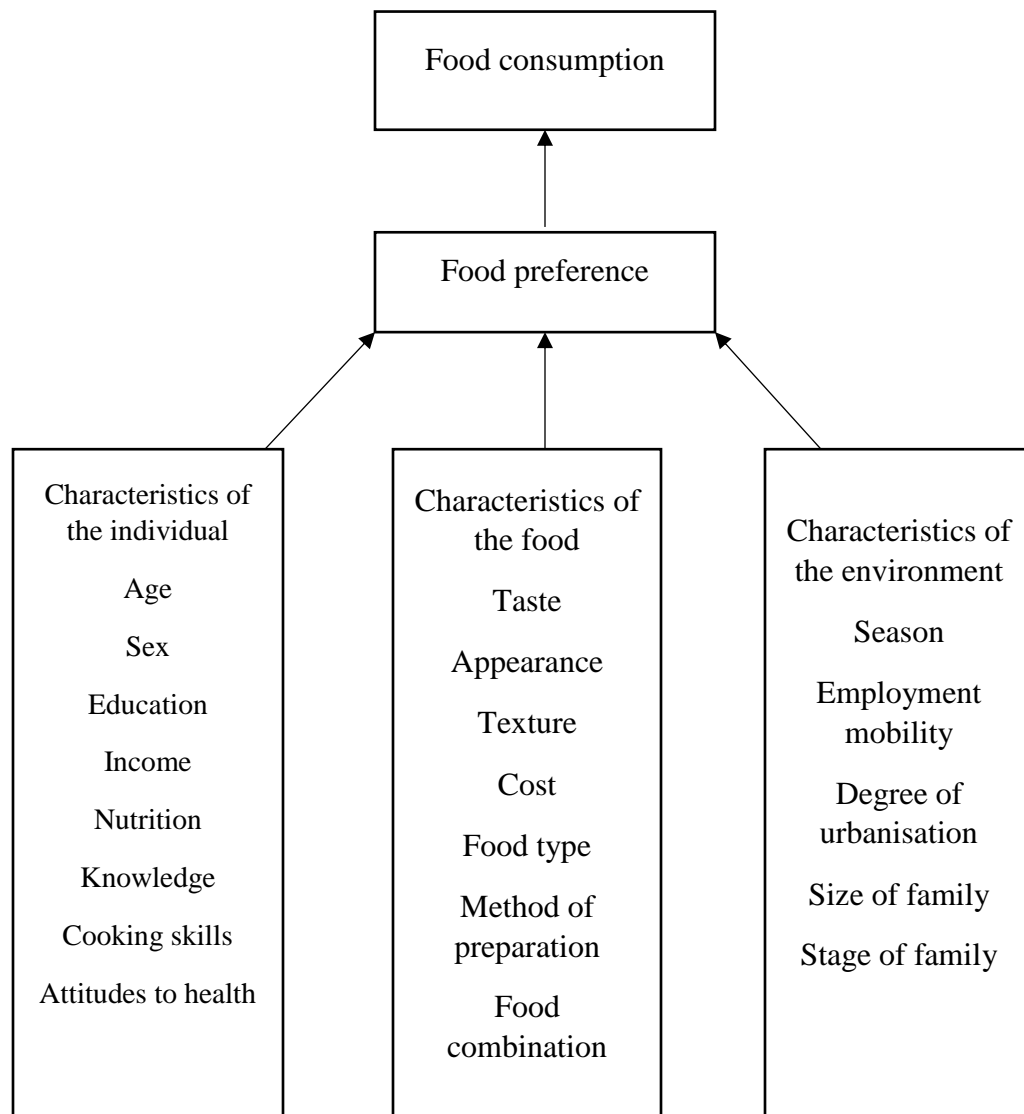


Figure 2: Factors Influencing Food Preferences

Source: Randall and Sanjur (1981)

Factors Influencing the Food Choice Model

This conceptual model was developed by Eertmans, Baeyens and Van Den Bergh (2001). The model was categorized into main factors that affect food choice. They include the food-internal factors, food-external factors, personal-state factors, cognitive factors, and sociocultural factors.

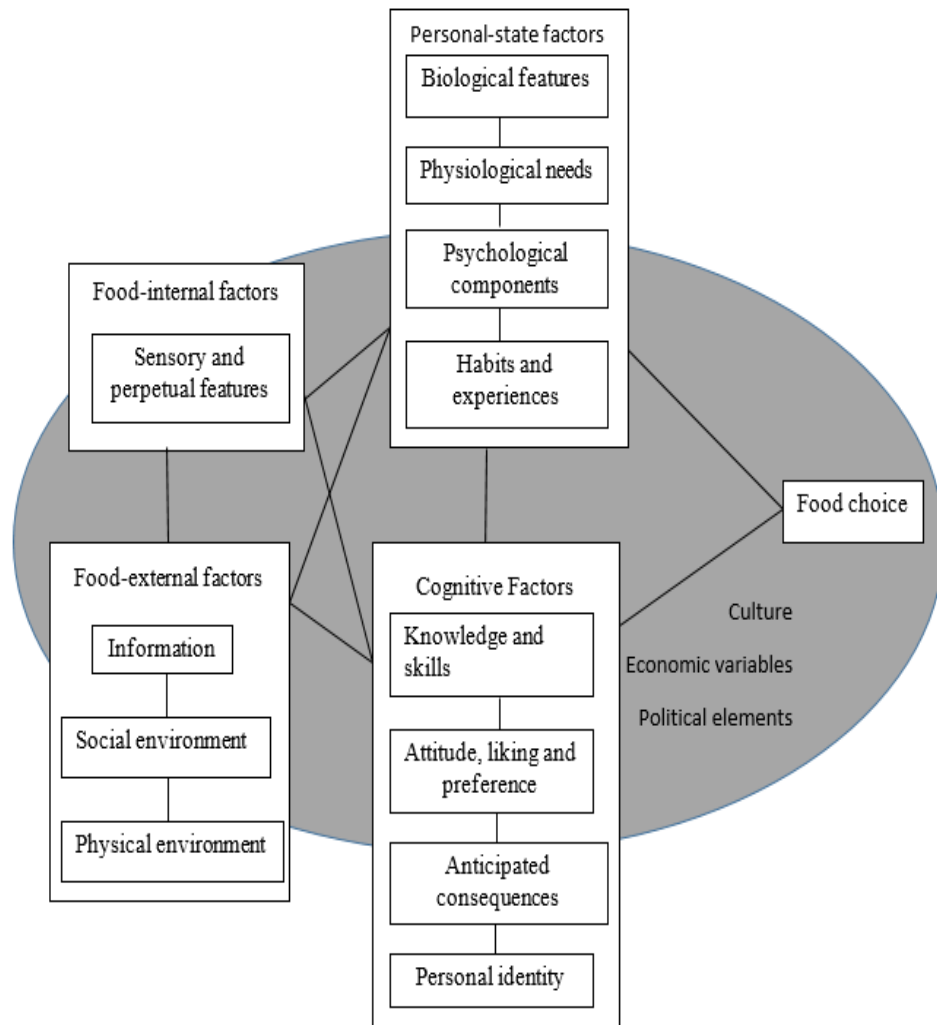


Figure 3: Factors Influencing the Food Choice Model

Source: Eertmans, Baeyens and Van Den Bergh (2001)

Food-internal factors are characteristics of food, such as sensory (such as flavour, taste, smell, and texture) and perceptual (such as colour, portion size, nutritional value, and quality) attributes. Chen and Antonelli (2020) assert that sensory and perceptual characteristics affect meal choice. Additionally, tastes and textures affect meal size and the development of satiety after intake, while visual and olfactory cues help identify food in the nearby surroundings, directing food choice and memory for eating McCrickerd & Forde (2016). Another literature analysis concluded that taste and texture play a significant part in a (macro) nutrient sensing system, while odour exposure stimulates hunger. Based on eating rate and oral exposure duration of food in the mouth, taste and texture contribute to satiation.

Information regarding food items, the social environment, and the physical environment that affects food choices are referred to as "*food-external factors*." Nutritional labelling, health claims, packaging, aesthetics, manufacturing ethics, brand history, and advertising are all considered when describing a food product (Birch, 1990; Birch, 1993; Birch & Marlin, 1982). Food label use has been acknowledged as a key element of initiatives to combat unhealthy diets and obesity. Food labelling gives information on the fundamental qualities of food products. For instance, Cowburn and Stockley (2005) reported on consumer understanding or use of nutrition labels and concluded that changes in the way nutrition labelling is presented and designed could help to improve the current point-of-purchase environment and make it more conducive to the selection of healthy options.

Consumers must be assisted in interpreting the nutrient information to enhance their diet overall. Examples of such assistance include vocal descriptions

and suggested reference values. Cecchini and Warin (2016) verified that nutrition labelling, particularly interpretive labels, may be a successful strategy for enabling customers to choose healthier products and to cut calories. For promoting healthy and sustainable food choices, interpretive nutrition labels with combination labelling that includes healthy and sustainable features can be appropriate and successful. 2019 study by Oostenbach, Slits, Robinson, and Sacks looked at how nutrition claims affected consumers' food preferences. The type of claim and the food associated with the claim determine how nutrition claims are influenced. For instance, nutritional claims may cause consumers to believe a product is less palatable and healthier. However, nutrition claims may make the recommended serving size seem larger, which understates the amount of energy included in food items. The perceived healthfulness of the relevant food products and people's awareness of their health act as moderators for how much influence nutrition claims have on food purchase intentions.

In addition to knowledge about food, external factors within the food environment play a crucial role in influencing food choices. These factors can be categorized into two main groups: the social environment and the physical environment. The social environment includes intrapersonal factors such as social norms from family, peers, and media, as well as ethical concerns and the broader social context in which food decisions are made. On the other hand, the physical environment encompasses factors like product availability, accessibility, convenience, and in-store characteristics such as shelf displays, product placement, and time of exposure. Research highlights the impact of the social environment on

food choices, as demonstrated by 34 models (Birch, 1990; Birch & Marlin, 1982; Cabanac, Pruvost & Fantino, 1973), underscoring the importance of social influences in shaping food selection behaviours.

Family and the home food environment are significant *social factors* that affect dietary consumption, although they have a greater impact on children and adolescents than on adults (Redd & de Castro, 1992). Adults' personal eating decisions are instead influenced by contact with people they don't live with, like coworkers, peers, and close friends. No matter whether people eat together or not, it has been argued that social norms and attitudes among group members, in addition to the setting of shared meals, have an impact on the types or quantity of foods that individuals consume (Redd & de Castro, 1992). In fact, social modelling influences what and how much people eat by utilizing the eating habits of others as a reference. When people want to identify with the model or think they are similar to the model, the effect becomes stronger. When choosing particular items (such as healthy foods or snacks) or meals (such as breakfast and lunch), the effect is lessened (Rolls, 1986).

Studies have shown that the *physical accessibility and availability* of food products in the workplace, surrounding neighbourhood, retail food stores, as well as restaurants, have an impact on food choices and eating behaviours, as well as the risk for obesity (Redd & de Castro, 1992). A review conducted by Castro, Majmundar, Williams, and Baquero (de Castro & Brewer, 1992) found that food retail environments, including product location on the shelf, appearance of the products on the shelf, brands available (i.e., customers are more likely to choose

familiar over unfamiliar brands), as well as product attributes, do influence customers' food choices of healthy or unhealthy items and energy intake. For instance, consumers may choose more varied options if they feel constrained by smaller aisles (de Castro & Brewer, 1992). The availability of time for food preparation and home cooking was the main focus of several models' inclusion of "time" as an influential element (Drewnowski, 1990; Gibson & Desmond, 1999). Lack of time, it has been found, can lead to alterations in eating habits, including a decrease in home cooking and an increase in the intake of convenience or already prepared foods (Rolls, Rolls, Rowe, & Sweeney, 1981).

According to our definition, personal states that influence food choices include biological traits (such as genetics, dietary patterns and metabolism, physical conditions like health), physiological needs (such as hunger and appetite), psychological elements (such as emotion, motivation, and personality), as well as habits and experiences that are unique to the individual. According to sixteen models (Birch, 1990; Drewnowski, 1990), biological traits and physiological requirements influence food choice. Physiological processes including circulating metabolic hormones and brain mechanisms involved in food intake and appetitive behaviours, aside from biological characteristics that are difficult to alter, can control dietary decisions (de Castro, 1991). Conversely, extreme, and limited dietary choices may lead to fluctuations and unbalanced weight and health status (i.e., dieting and unhealthy weight management practices were the biggest predictors of weight gain) (de Castro, 1991).

Psychological components appeared in twenty-nine models (Birch, 1990; Birch & Marlin, 1982). Many studies, according to these theories, concentrated on the role of emotion in people's food decisions. The model put forth by Gutjar, de Graaf, Kooijman, de Wijk, Nys, Ter Horst, and Jager (Letarte, Dubé & Troche, 1997), for example, was devoted to examining the role of food-evoked emotion in food choice. Consumer decision behaviour may be influenced by food-evoked emotions, which can be divided into two categories (valence and arousal). These emotions add predictive value to simple ratings. A stronger prediction was made for choices based on tastes when liking and emotional valence were combined. Together, emotional valence and emotional arousal provide a larger predictive value for package-based decision liking (Letarte, Dubé, & Troche, 1997). In the models, motivation is typically present in addition to emotion. However, the emotional, hedonic, and metabolic qualities of the foods determine why people prefer one over the other (de Castro, 1991). In other words, other reasons motivate people. As a result, we excluded "motivation" from our categories.

Comparatively fewer models (Birch, 1990; de Silva & Rachman, 1987; Drewnowski, 1993) discussed prior experiences and/or behaviours. In these models, habits were classified as a situational component whereas experiences were classified as a psychological element associated with the function of memory. However, memories, emotions, and learning are just a few of the many components that make up experiences and habits (Frank & Byram, 1988). In addition, the conscious process must be considered (Rolls et al., 1997). Therefore, in our opinion, it is preferable to classify experiences and habits as personal-state factors when

incorporating them into the framework of food choice, emphasizing the impact of experiences and habits on the person at the time of making food decisions.

Cognitive considerations have an impact on food decision-making before it reaches its final output in eating behaviour. Knowledge particularly that linked to nutrition and food (Letarte et al., 1997; Drewnowski, 1990), as well as food management abilities (De Bourdeaudhuij, 1997; Drewnowski, 1993), can have a significant impact on the foods one chooses to eat. For instance, it has been demonstrated that nutrition knowledge is a partial mediator of the socio-demographic difference in food consumption, particularly for fruit and vegetables, suggesting that information plays a key role in explaining variability in food preference.

The second aspect is evaluation-based (Gibson & Desmond, 1999), and it includes attitude, liking, and preference (Paulus & Reisch, 1980; Pliner, Lahteenmaki & Tuorila, 1998), as well as behaviour (Rozin & Schulkin, 1990; Rozin & Zellner, 1985). The following are possible variations between these three factors in terms of food selection: attitude is a representation of how people implicitly evaluate food. As stated by Russo et al. in 1986, attitudes are frequently based on valence (positive and negative), but they can also be based on other ideas, such as healthiness. Instead of focusing on liking, pay attention to the sensory assessment of food (Sanchez, Klopfenstein, & Walker, 1995). Finally, preference is based on comparison (choosing food item A over food item B). For instance, fat content had a greater impact on obese people's dietary preferences than carbohydrate or sugar content (Scholten, Van der Doef, Maes & Sachtlevan, 1994).

The worry about potential health effects of food consumption, such as advantages or hazards (Letarte, et al., 1997; Rolls, 1993), is the third cognitive element (Cabanac, Pruvost, & Fantino, 1973). This factor includes expected repercussions. For instance, customers are more likely to select foods that result in favourable outcomes, such as the anticipated extension of life (Scholten et al., 1994).

Finally, personal identification can also influence dietary choices. This includes demographic characteristics like age, gender, ethnicity, and education (Birch, 1993; Redd & de Castro, 1992). The story of families, migrations, assimilation, resistance, and changes over time, for instance, is told through food choices (Spitzer & Rodin, 1981). According to Steptoe, Pollard, and Wardle (1995), increased intake of fruits and vegetables was substantially correlated with having a healthy eating identity. Additionally, cultural, and social influences on personal belief and values can influence dietary choices (Birch, 1990; Birch & Marlin, 1982). Two early studies (Steptoe & Wardle, 1999; Stone & Pangborn, 1990) have highlighted the possible contribution of personal conviction and value in maintaining goal-directed behaviour, particularly for dietary choices related to health.

The influences on the above-mentioned components mostly come from the individual. Sociocultural elements, the last group, concentrate on the societal level. Income, socioeconomic status, and food prices are reported by 29 models (Hetherington & Rolls, 1996; Hetherington, Rolls & Burley, 1989); cultural norms and values are reported by 17 models (Prescott, Allen & Stephens, 1993; Raaheim,

1990); and agricultural and food policy and regulations are reported by 9 models (Pelchat & Rozin, 1982) according to Larson and Story (Rolls, 1993).

Regarding income and food costs, Larson and Story (Rolls, 1993) noted that for low-income groups, additional obstacles to a healthy diet include the time and financial costs of purchasing and preparing foods (for example, nutrient-dense foods are more expensive than foods that are higher in energy). According to Strugnell (1997), greater dietary costs can exacerbate socioeconomic gaps in diet quality. However, price elasticity for meals can also be a tactic for modifying customer demand, causing them to switch from purchasing harmful food to healthier food.

The example illustrates that a 10% increase in the cost of soft drinks is likely to lead to an 8%–10% reduction in consumption. Price and advertising within the food retail environment significantly affect customers' purchasing intentions and preferences (Drewnowski, 1990). Additionally, agriculture and food policies can influence the quantity and quality of food throughout the supply chain. Changes in food prices due to these policies can impact consumer choices, affordability, and access to nutrient-dense foods (Rolls, 1993). Moreover, cultural factors, particularly shared values and beliefs about food and wellness, also play a critical role in shaping food choices and eating behaviours (Rolls, 1993).

The Conceptual Framework for the Study

This conceptual framework is an adaption of the theoretical model to study food choice by Chen & Antonelli (2020), Mak et al., (2012), Shepherd (1985) and

Randall and Sanjur (1981). This model incorporates a range of factors that could determine consumers' food choices. It also recognizes the broader individual factors, food factors and environmental factors that define people's food choices. This model creates an interrelationship between the three broad factors hence the linkages between the individual boxes. This means that each of these factors, that is, the individual, food-related and environment might affect one's food choice either peculiarly or in tandem with the other.

However, hardly only one set of factors affects food choice; it is a multitude of factors and motives that shape food choices. The addition to the previous models noted above is the "*Restaurant Related Factors*". These factors look at the customer's consideration in choosing a restaurant, the occasion of the meal and the type of restaurant. They set the context and the stage for consumers' food consumption motivation and behaviour. Thus, they influence what is available, the time the consumer spends and the choices that can be made. Restaurant-related factors also influence food-related factors, individual-related factors, and environmental factors and vice versa. The restaurant-related factors on their own influence food choice.

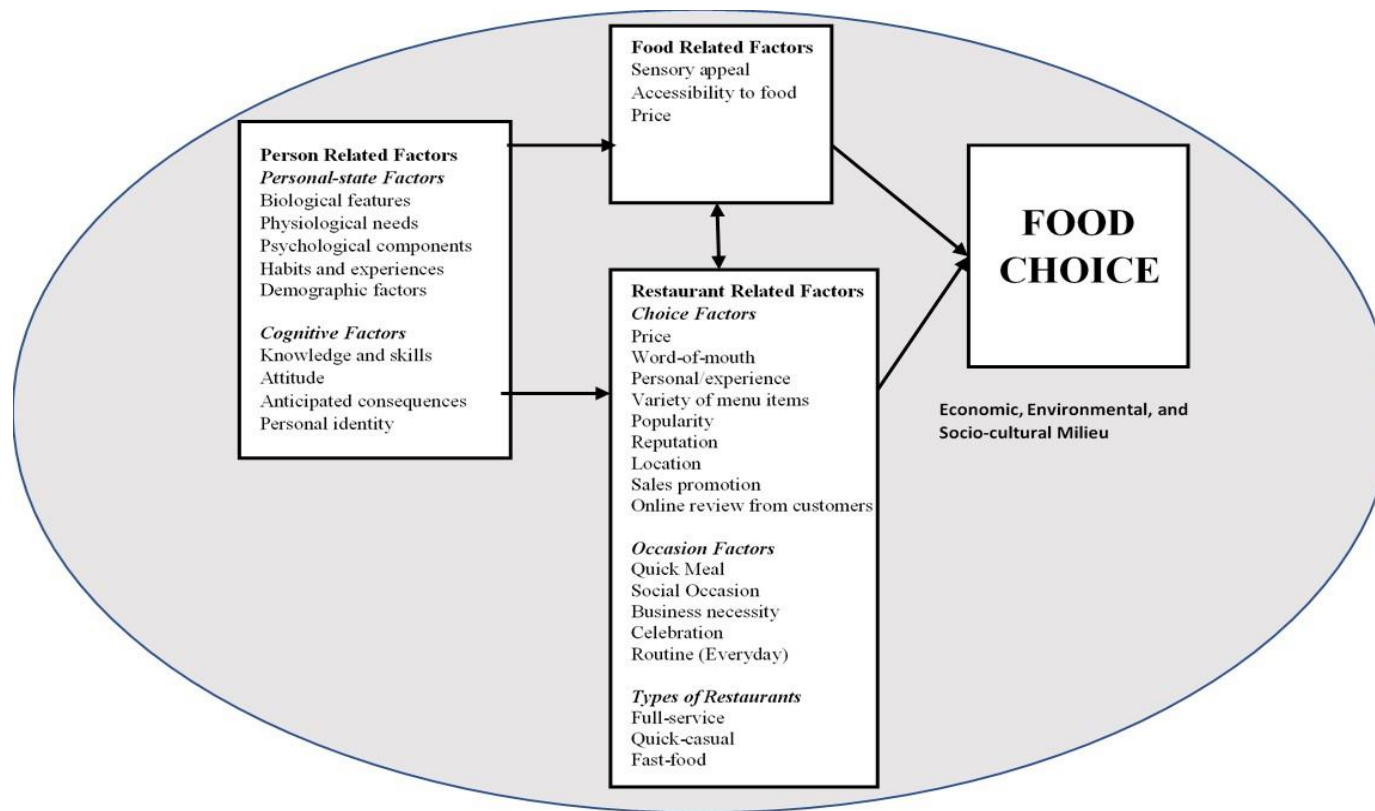


Figure 4: Proposed Conceptual Framework for Study

Source: Developed based on models by Chen & Antonelli (2020); Mak et al., (2012); Shepherd (1985); Randal & Sanjur (1981)

Chapter Summary

The chapter was in three parts. The first part looked at the concept of food choice. The second part looked at the theory and the models underpinning the study. The theories and models reviewed include Rational Choice Theory, the Attitude social influences and Self-efficacy model, the Health Promotion Model, and the Food Choice Process Model. The final part looked at the conceptual framework that was developed from the theory and models to guide the study.

CHAPTER THREE

FOOD CHOICE ISSUES IN RESTAURANTS

Introduction

This chapter is a review of the empirical literature which relates to the dimensions of food choice behaviour. The chapter looks at place, person, food, and environmental-related factors that influence restaurant and food choice behaviour of consumers. These factors are discussed within the context of existing empirical evidence.

Restaurant-Related Factors

Eating away from home involves a lot of decision-making. Prime among them is the decision on which restaurant to go to given that there are always uncertainties about what to expect (Yi, Zhao, & Joung, 2018). Han and Hyun (2017) note that customers' repeat visits to a restaurant depend on the attributes of the restaurant that most appeal to them. An attribute can be defined as "the characteristics or factors by which products are identified and perceived as different by consumers" (Peters & Remaud, 2020, p 2). Based on the existing empirical studies, the study acknowledged choice factors, eating out occasion factors and types of restaurants, as restaurant selection factors that are likely to influence consumers' decision in choosing a restaurant.

Choice Factors

Several studies have explored these attributes as a function of choice factors from diverse perspectives. For example, as early as 1992, Auty identified 10 different variables that influenced restaurant choice: food type, food quality, value for money, image and atmosphere, location, speed of service,

recommendation, experience, hours of operation and child-friendliness. Kivela (1997) also identified 14 attributes other than food type and quality that affected restaurant choice, including location, ambience, competent wait staff, cost, comfort, menu variety, and cleanliness.

Word-of-mouth, online customer reviews, brand reputation, brand popularity, personal (past) experience, menu variety, menu price, sales promotion, and location are the other nine restaurant selection factors that Chua, Karim, Lee, and Han (2020) identified as likely to influence customers' decisions when choosing a restaurant. Most of these attributes are restaurant-related and are important to the competitiveness of these restaurants (Taylor & Verma, 2010) and affect customers' attitudes, habits, and preferences (Chen, Wu, Tsai, Chang & Chen, 2020).

Since those pioneering works, some recent works show the most important attributes to customers when it comes to restaurant choice. In a study among residents in Southern USA, Alonso et al., (2013) found that food quality, type of menu, variety and taste of food were the crucial restaurant choice factors. Similarly, Ayenigbara and Fadoju (2020) in their study of restaurant choice factors among the non-academic staff of a university in Nigeria found that food price, service quality, peer influence, ambience and a hygienic environment were the most important restaurant choice factors. Bae, Slevitch and Tomas (2018) also found among solo dinners in the USA that although the physical environment, service quality and food quality were important attributes in restaurant selection, food quality was the most important when it comes to repeat visitation.

Other factors have also been found to influence restaurant choice. For instance, Lin, Sharma, and Ouyang (2020) whose study focused on how what they termed “restaurant signal” (ownership, sourcing, and food quality) informed restaurant choice found that the most important signal was food quality although ownership and sourcing influenced choice decisions. Han and Hyun (2017) also found that the overall image or reputation of the restaurant, which is encapsulated in the product sold and other attributes such as physical environment and service quality were key factors in the restaurant selection factors and revisit intentions.

With respect to specific restaurant types, Cheng, Wu, Tsai, Chang, and Chen (2020) found among fine-dining consumers in Taipei that six attributes were important: dietary preferences, design styles, service commitment, additional value, delicate information collection and dining environment. Among these six, three were very essential to selection: dietary preferences, additional value, and service commitment. In the fast-food restaurant, Shetu (2021) found that food quality, shop environment, customer service quality, food menu, price, restaurant location, promotional activities and experience were the most principal factors influencing restaurant choice. Earlier studies in the same sector by Harrington, Ottenbacher, and Way (2013), Kim, Hertzman, and Hwang, (2010) and Ryn and Han, (2010) found that food safety, restaurant cleanliness, food quality, speed of service, perceived value of the food and drink items, quality of service, staff friendliness, price, variety of menu, and close travel distance were important. It can therefore be deduced from the extant literature that the attributes of a restaurant are important in the decision-making process when choosing food.

Eating Out Occasions and Restaurant Types

Consumers' eating-out experiences in restaurants are driven by different reasons such as eating-out occasions and restaurant types (Ponnam & Balaji, 2014). Eating out occasion influences consumer choice in the restaurant selection process. Kivela (1997) studied eating out occasions such as celebrations, business, social and convenience/ quick meals to understand consumer restaurant choices. The findings revealed that location was most related to convenience/quick meal occasions; food quality was perceived to be important for celebration and business occasions; and cleanliness seemed to be one of the important factors in consumer choice of restaurant.

Person-Related Factors

Personal factors are the background of an individual's life and living, including features of the individual that are not part of a health condition or health state, and which can impact functioning positively or negatively (Grotkamp et al, 2012, p. 2). The person-related factors range from physiological, and psychological responses of individual consumers among others (Pace-Schott, 2019; Pinker, 2018; Clicerì, Spinelli, Dinnella, Prescott, & Monteleone, 2018; McGowan et al., 2016; Dematte, Endrizzi, & Gasperi, 2014; Mak et al., 2012; Chen, 2011).

Food choice is an area of consumer behaviour where *socio-demographic variables* have been noted to play a key role and account for some of the differences that have been noted (McGowan et al., 2016). Age affects the choices that people make and for that matter, marketers are interested in how ageing affects consumer choices (Moschis, 2012; McKay-Nesbitt et al., 2011).

Kim and Jang (2019) looked at the dining behaviour of seniors and young people in the USA and found that age did not have a considerable influence on the frequency of dining out among those two groups. Moon (2021) also investigated the moderating role of age on beliefs, attitudes, and intentions to patronise green restaurants in South Korea between young people and older adults and noted that age had a considerable influence. Older adults' patronage is high now, but their future intentions have decreased. The vice versa is for younger adults.

The frequency of eating out aside, questions have also been asked about the role of age in the autonomy of choice in an eating setting. Hallstrom et al., (2011) through a study on factors affecting food choice at breakfast found that youngsters/adolescents make their food choices based on the directions given by their guardians or parents. However, as they grow, there is more autonomy in choice-making. Age again affects what one eats and that is not limited to only the home environment but eating out as well. Samanniego-Vaesken et al. (2018) looked at the influence of socio-demographic factors on food choice in Spain in a study that observed significant differences across all the age groups regarding food choice in terms of the food groups. This again shows the significance of age on food choice.

Gender influences all aspects of food liking and choice (Ares & Gambaro, 2007; Spinelli et al., 2018). Missaga et al., (2013) for example noted that gender differences in choice and intake are shaped by social norms and cultural beliefs such as motives and behaviours. In the Italian food taste project, Montelene et al. (2018) found males to be more neophobic than females. However, a study among young southwest Finnish adults by Knapik et al.

(2015) did not find any differences between females and males for the twin personality traits. The influence of gender on food choice is not limited to how personality traits affect consumption but to what food items are consumed. Graca, Truninger, Junqueira and Schmidt (2019) in a study on transitions to plant-based meals in Portugal found that highly educated females consumed more plant-based meals and decreased consumption of red meat meals than males.

Another important study on gender and food choice is the differences in taste perceptions, especially sensitivity to chilli. There could also be the issue of interest and knowledge in food. Women are more involved in food and as such have more knowledge than men (Manippa et al., 2017). The quantity of food consumed also varies by gender. This link is however not straightforward as it is associated with some psychological factors. Uccula and Nuvoli, (2017) for instance in a study in Sardinia (Italy) on body perception and meal type found that women who perceive themselves as overweight tend to eat incomplete meals and less food than their male counterparts. Manippa et al. (2017) also note that among the food groups, women consumed more fruits and vegetables, legumes, whole food and more sweets and cakes than men. Men, on the other hand, ate more fat and protein-rich foods, and drank more beer, spirits and wines than females.

Education is an important determinant of food choice. Higher education means people are more informed and able to make sustainable choices when it comes to the food that they eat (Graca et al., 2019). Previous studies show that age, gender, *education*, and income play a crucial role in food choice (Büyükkaragöz, Bas, Sağlam, & Cengiz, 2014; Chen, Lobo, & Rajendran,

2014). For instance, a study by Gama, Adhikari, and Hoisington (2018) found among Malawians that education has a positive influence on healthy food choices. Those with higher education were more concerned about their health compared to those with lower levels of education. Education has also been found to lead to enthusiasm about food. Gong, Li, Xie, and Tan (2020) observed among Chinese consumers that those with higher levels of education were more enthusiastic about the food they eat. These are young and with high income and more involved with food. Consequently, people may sometimes consume what they do irrespective of their educational background.

One measure of *socio-economic status* is income. There is a correlation between income and food choice with recent studies reporting that increasing income does not only increase expenditure on food but also the diversity in the choices that are made (Chai, Rohde, & Silber, 2015; Clements & Si, 2017). An example is a study by Sosa, Cardinal, Contarini, and Hough (2015) conducted among low-income (LI) and middle-income (MI) women in Argentina. They found that those within the LI group price was an important consideration when making food choices and this affected the quality and type of food selected. However, diversity in choice does not necessarily mean healthy choices. Lusk (2019) while analysing data from the Food Demand Survey of the US population found some preference reversal or instability among people with high income. The assumption is that with increasing income people will make more healthy choices with food. That will be the rational choice. There are instances where that is reversed where people with high income make poor food choices.

The relationship between socio-economic status and food choice is intricately linked to the cost of the food itself. Drewnowski (2010) analysed in America that food intake and found that higher caloric and unhealthy and cost less compared to high-quality food (cf. Bernstein et al., 2010; Jones et al., 2014; Lee et al., 2011; Rao et al., 2013; Rehm et al., 2015). The conclusion is that the socio-economic status of individual affect what they can purchase when eating out. Socioeconomic status is also intricately linked to the choice of food service establishments. Pechey and Monsivais (2016) analysed the Kantar WorldPanel (KWP) UK-household survey of 2010 and found that people's choice of food stores and the choices that they make inside are influenced by their socioeconomic status and the specific motivation for expenditure. Therefore, socio-economic status affects the food choices that people make as well as where they choose to eat/buy their food.

Culture, religion, and tradition constitute belief systems that shape food preferences and consumption (Alonso, 2014). Religious prescriptions influence what is eaten during specific periods or occasions. Shipman and Durmus (2017) looked at how culture and religion shaped the food preferences of Turkish living in Istanbul and found that some foods were typical foods for the Muslim fasting month and the celebrations that followed the fast. Arsil, Tey, Brindal, Phua and Liana (2018) looked at the personal values underlying halal food consumption among Indonesians and Malaysians. They found that halal application by the two groups was about the "Allah Ordinance" and affected what they consumed. For the Indonesians, it was about healthy food and for the Malaysians, it was all about clean food.

Health and good taste are two principal concepts involved in food choice (Cox, Melo, Zabaras & Delahunty, 2012; Dubé, Fatemi, Lu & Hertzner, 2016; Nguyen, Girgis & Robinson, 2015). It is therefore not surprising that health features in the halal application. The consumption of halal food is for the devout. In another study, Vanany, Soon, Maryani and Wibawa (2018) looked at the determinants of halal food among Muslims in Surabaya, Indonesia. The conclusion was that moral obligation was the principal motivation for consuming halal food. Consequently, it is possible to find some Moslems who will not mind consuming non-certified halal foods.

The influence of culture and religion on food choice is not limited to what is culturally or religiously acceptable or forbidden. Countries have been used as proxies to measure the premium distinct cultures place on specific determinants of food choice and contrasting results have been found. A study among Russians for instance found that they were more concerned with food availability than other cultures (Honkanen & Frewer, 2009). In a cross-cultural study conducted by Januszewska, Pieniak, and Verbeke (2011) using the food choice questionnaire they found differences among Belgians, Hungarians, Romanians, and Filipinos on what motives lead to food choices. Health was more important for Filipinos than Hungarians, mood was more important to Filipinos than the citizens of the three European countries. Also, convenience was more important in Hungary and Belgium than in Romania and the Philippines. The sensory appeal was especially important to Hungarians than the three other countries whilst the price was the most important among Belgians and Filipinos.

Markovina et al., (2015) conducted a similar study using the FCQ in nine European countries (Norway, Germany, Spain, Greece, Poland, the UK, Ireland, the Netherlands, and Portugal) and observed that in Spain, Greece, Portugal, Ireland and the Netherlands, the price was the most important food choice motive. Poland was the only country that ranked natural content as important an indication of its uniqueness among the other rest (being the only Eastern European country). The above goes to indicate that the distinct cultures have varied reasons for the food choices they make with further differences likely to occur among subcultures within those cultures).

Psychological factors play a vital role in food choice. The Merriam-Webster dictionary links psychology to mental state. Therefore, psychological can be construed as the mental state of individuals and for this study can be seen as how individual mental states affect their food choices. Three psychological factors that have been the subject of empirical investigation are food-related personality traits, stress, and mood. These are reviewed next.

Personality Traits

Food-related personality traits have been identified as one of the prime factors influencing food choice. Mak, Lumbers, Eves, and Chang (2012, p. 932) describe food-related personality traits as “*individual characteristics that exert a pervasive influence on a broad range of food-related behaviours*”. Spinelli et al., (2018) identified six psychological or personality traits that affect food choice: food neophobia; private body consciousness; sensitivity to punishment and reward; sensitivity to core disgust and alexithymia. Among these psychological factors, food neophobia and variety-seeking (Pliner & Hobden,

1992) have been widely studied (Dematte, Endrizzi, & Gasperi, 2014; Mak et al., 2012).

Food neophobia is mankind's natural predilection to dislike or be suspicious of new and unfamiliar foods (Dovey, Staples, Gibson, & Halford, 2008; Knaapila et al., 2007; Pliner & Salvy, 2006). According to Dimitrovski & Crespi-Vallbona, (2017), it is a behaviour that discards any unknown food suggestions. It is not only the inclination to avoid unfamiliar foods but to also avoid proposals about them (Hwang & Lin, 2010). Thus, food neophobia could be seen as both a behaviour and personality trait that determines people's willingness to ingest unfamiliar or familiar foods (Eertmans et al., 2005; Kim et al., 2009). It is also seen as mankind's safety mechanism against the ingestion of unsafe food (Johns, Edwards, & Hartwell, 2011).

The relationship between food neophobia and food intake is rife in the present literature. Jaeger, Rasmusen, and Prescott (2017) studied adults in New Zealanders and uncovered that food neophobia affected both the frequency of consumption and the pattern of consumption with the frequency of consumption being low for those with high food neophobia. In another study on the consumption of vegetables with more appealing and less appealing sensory properties among the people of Denmark, the UK and Italy, Appleton et al. (2019) observed that the consumption of vegetables with highly appealing sensory properties was higher among males of Denmark and Italy with lower food neophobia and healthier eating habits. The consumption of vegetables with less appealing sensory properties was high in females of Denmark with lower food neophobia and a liking for natural foods.

Research also shows that cultural and socio-demographic characteristics influence people's tendency to be food-neophobic (Tuorila et al., 2001; Kim et al., 2013). For example, Siegrist, Hartmann and Keller (2013) in a study that analysed data from the Swiss Food Panel found that age positively correlated with food neophilia whilst income and education did not. Food neophobia changes with age. Fernández-Ruiz, Claret, and Chaya (2013) on the other hand, while testing the Spanish version of the food neophobia scale (FNS) did not find any differences in food neophobia with regards to gender but reported that age was significantly associated with neophobia with young people showing less neophobia than older adults. An earlier study by Johns, Edwards, and Hartwell (2011) on how food neophobia affects the adoption of new products among postgraduate students at Bournemouth University found no gender differences and there were no differences in age as well (below 24 and 25 and above) and whether one resides in a city or not. However, differences were found between Europeans and Asians with Europeans being more neophobic than their Asian colleagues. The conclusion by Knaapila et al., (2011) is that an observed food neophobic trait can be associated with the environment in which people find themselves.

Stress and Mood

Psychological stress is a general response of the body that either overwhelms or threatens to overwhelm it and its ability to maintain equilibrium (Elshurbjy & Ellulu, 2017). Individual differences in coping with stress are important in understanding the food choices that they make during stressful periods. The relationship between perceived stress and eating behaviour is seen

in such concepts as “comfort food” and “comfort eating” (Ashurst et al, 2018; Gardner et al., 2014).

Ashurst et al., (2018) conclude that the exact food eaten during stressful times is not known. Whereas individual differences that have been noted in stressful conditions could affect people’s food choices, it is suggested that about 20 per cent of people under stress do not change their eating behaviour (Yau & Potenza, 2013; Torres & Nowson, 2007). Poelman et al. (2020) did a secondary analysis of data collected by the Netherlands Nutrition Centre among the Dutch population looking at eating behaviour during the COVID-19 lockdown in that country. They found that the majority (83%) of the respondents did not change their eating behaviour. However, a study by Okumus (2021) looking at the impact of perceived stress on the external (eating when not hungry) and emotional eating (eating to cope with stress) behaviour of US Millennials found a direct and positive relationship between the two. They ate more under both external and emotional eating when stressed. Earlier studies on the same group found comparable results (American Physiological Association, 2017; Nevanpera et al., 2012).

Okumus (2021) in an exploratory qualitative study among 50 Millennials in Central Florida found that those stressed (studies, work, finances, and duties) ate unhealthier foods (chips, ice cream, soda, and pizza) to cope with it. This phenomenon is not new. The association of stress with unhealthy eating behaviours has been reported in the literature. For example, Papier et al. (2015) looked at stress and eating behaviour among students at an Australian University and found that both males and females who reported being stressed consumed more unhealthy foods compared to those not stressed. Park and Sung

(2020) in a qualitative study looking at stress-induced eating and weight gain among 21 office workers in South Korea found that participants either ate more or lost their appetite during stress with 21 of them eating more and craving sweets, salty, greasy, and spicy dishes during the period.

Psychologists agree that food intake is associated with the affective states of people (Alzheimer et al., 2021). Emotions are part of humans, and they shape the affective, and physiological and are crucial motivators for behaviour (Evers, Dingemans, Junghans, & Boeve, 2018). Emotions affect eating behaviour. Negative mood, sadness, tension, and instability of emotions are antecedents of binge eating (Devonport, Nichollas, & Fullerton, 2019; Nichollas, Devonport, & Blake, 2016). One's mood is a psychological arousal state which can last for several minutes or longer (Gardner, Wansink, Kim, & Park, 2014). Emotional eating, which is an increase in eating because of a negative emotion has therefore become an important subject in all fields of study (Tsenkova, Boylan, & Ryff, 2013).

People use food to cope with negative affective states such as anxiety, boredom, depression, fatigue, fear, frustration, and sadness (Finch & Tomiyana, 2014; O'Connor, Jones, Conner, McMillan, & Ferguson, 2008; Wallis & Hetherington, 2009). A meta-analysis of the effects of these bi-manifestations of mood on food choice revealed that negative mood was associated with large food intakes whilst positive mood was associated with high-calorie intakes (Cardi, Lappenen, & Treasure, 2015).

Alzheimer and Urry, (2019) when addressing the issue of emotional eating posited that emotional eating is conditioned on three points: Emotional eating may require that people learn to associate emotion with eating, (b)

emotional eating may follow only specific discrete emotions, and (c) emotional eating may depend on social context. Therefore, it will be important to look at the phenomenon in the context in which it occurs in order to arrive at a valid conclusion. This is because experimental studies indicate that emotions do not lead to increased eating in healthy people (Cardi, Leppanen, & Treasure, 2015). For example, Evers, Dingemans, Junghans, and Boevé (2018) conducted a meta-analysis on the effects of negative emotions on eating behaviour among healthy controls eating disordered individuals, overweight/obese individuals, low restrained eaters, and high versus low emotional eaters. The overall findings were that negative emotions did not significantly affect food intake. However, in restrained eaters, there was a slight increase in eating due to negative emotion and this was more prevalent in older persons than their younger counterparts.

Another systematic review of the association between emotion and eating behaviour by Devonport, Nicholls, and Fullerton (2019) found that among females, stress and guilt were the main triggers for eating whilst in males, it was boredom and anxiety. Individuals who reported eating in response to negative emotions also indicated eating more during stress. For naturally occurring emotion and eating behaviour they found that people reported eating more in response to positive emotions than negative emotions, which is logical given that celebratory occasions are always associated with merry-making and eating (cf. Evers, Adriaanse de Ridder, et al., 2015; van Strien et al., 2013a).

Recent studies show that emotional eating may be due to the association people have made between emotion and eating rather than eating being a direct consequence of emotion (Bongers & Jansen, 2017; Herle, Fildes, Steinsbekk, Rijdsdijk, & Llewellyn, 2017). Althiemier, Giles, Remedios, Kanarek and Urry

(2021) conducted a quasi-experimental study to find the association between emotions and eating. They found that emotions did not alter people's eating behaviour even among people who report having to desire to eat more when stressed. In their induced experiments on sadness and anxiety, they found that people ate less when induced to feel sad versus neutral but there were no changes when induced to feel anxious versus neutral. They concluded that people associate specific emotions with specific foods (chocolate for both happiness and sadness). Context, therefore, is important when it comes to emotions and eating. It is not what is eaten that is important but what is associated with it (Meule, Reichenberger, & Blechert, 2018). In conclusion, people react to emotions differently and not all people will use food as a medium for expressing their mood (Alzheimer & Urry, 2019).

Attitudes and Motivation

Attitudes are people's predisposition to behave in a certain way; either negative or positive. Attitude is an important hypothetical construct that guides and influences actual behaviour (Chang, 2017). According to Romanos-Nanclares et al., (2018; p. 2) eating attitudes are "emotional, motivational, perceptive, and cognitive beliefs that influence the behaviour or practice of an individual" around food. Scott, Haycraft and Plateau (2019, p.183) distinguish between eating attitude and eating behaviour by noting that attitudes are the beliefs, thoughts, and feelings around food whilst behaviours are discussions, actions towards and relationships with food. These two affect food choices and exist on a continuum from normal to disordered.

Most of the negative attitudes toward food resulting in eating disorders among women especially have been due to the thin-ideal body image projected by the news media (Ching, & Xu, 2019). A study by Aparicio-Martinez et al. (2019) among young women in Cordoba, Spain found that women who have a thin-ideal body image engaged in a disordered eating attitude. These attitudes are preconditioned on the motivation to have a certain body image that is appreciated by the public. However, how body image affects eating attitude is not uniform across the population. Differences have been noted between urban and rural dwellers.

A study conducted in South Africa by Prioreshi et al. (2017) found that urban women were more concerned about thin-body image and hence will engage in eating attitudes towards getting that body image. Among the women from the rural areas, a fat body (adiposity) was the ideal, hence eating to maintain such body image. The desire for urban women to look thinner hence negative eating attitudes has also been reported in Ghana and Cameroon as well (cf. Benkeser, Biritwum, & Hill, 2012; Cohen, Boetsch, Palstra, & Pasquet, 2013).

Motivation is another important individual factor influencing food choices. Food motives predict behavioural intentions in food choices (Chen, 2007). So, what motivates people such as staying healthy and eating healthy has become principal factors in food choice (Michaelidou, Christodoulides & Torova, 2012). Motives for healthy eating can be intrinsic and extrinsic and can be categorised into three: self-image (attractiveness); health (health promotion and disease prevention; and social pressure (pressure of others to eat healthily) (Satia *et al.*, 2001).

The intrinsic motives are most geared towards some personal reward such as having an attractive body and the extrinsic motives are outward rewards or punishment such as commendation/approval by others or scorn and badmouthing by people. In food choice, both intrinsic and extrinsic motives are always present (Michaelidou, Christodoulides & Torova, 2012). For example, a Lithuania study on the motivation to eat functional foods by Barauskaite et al. (2018) revealed that the motivation was driven by health-related motives and social and hedonic motives as well.

The desire to fit into specific communities has also motivated people to be restrained in what they eat. Convertino et al. (2021) in a study looking at eating disorders among sexual minorities in the USA found that the to look lean and tone body image was the primary cause of eating disorders among women whilst for men it was the muscularity. This again supports earlier research that found that body image was a primary motivation for eating among women especially (Robinson et al., 2017; Tiggemann & Zaccardo, 2018).

Sproesser et al. (2017) tested the Eating Motivation Scale and found no differences across three countries, the USA, Germany, and India. They found liking, habits, health, conveniences, price, and weight control as key factors across the three countries. This is in line with earlier studies that did not find differences in eating motivation across cultures (cf Siegrist, Shi, Giusto, et al. 2015; Pechey, Monsivais, Ng, et al., 2015). Other motives such as traditional eating, natural concern, sociability, visual appeal, affect regulation, social norms and social image were consistent across the countries.

In recent times the debate has moved on to looking at the motivation for consuming specific food items such as meat or not. De Boer, Schosler and

Aiking (2017) looked at the motivation of vegetarians and meat-eaters in the Netherlands. The results indicate that vegetarians and meat-eaters did not differ in food-related motivation. That is, eating food is what it is. Those with high food-related motivation have an attitude that makes them eat the food no matter the context (Hsu & Huang, 2012). Another study by Hopwood, Piazza, Chen, and Bleidorn (2021) looking at the motivations to eat meat found social norms (necessary), prosocial motives relating to taste and personal motives related to health were the motives. These motives did not differ from the motivation given by vegetarians in the study. Although individual differences can be found among groups, the motives for those eating meat and non-meat eaters are the same.

In the tourism literature, tourists' motivation to eat local food has been extensively studied. Akyuz (2019) looked at factors that influence local food consumption among leisure travellers residing in Istanbul. Levitt, Zhang, DiPietro, and Meng (2019) while looking at food tourists' intentions to consume local cuisine in the South-eastern United States found food involvement and motivation had a strong and significant relation to attitude toward consuming local food.

Biological/Physiological Factors

According to the Merriam-Webster dictionary, physiology is a characteristic of or appropriate to an organism's healthy or normal functioning. Hence, physiological factors in food choice look at how food choice helps the body to function. Physiological determinants of behaviour include biological and sensory mechanisms and the needs of the body. Human physiological

experiences are linked to bodily sensations which are outcomes of the biological processes in humans (Pace-Schott, 2019; Pinker, 2018). These include hunger, taste, appetite, and satiety, which are essential prerequisites for choosing to consume foods.

Hunger and Satiety

Hunger is important in the decision-making of people. Hungry people tend to make decisions that have short-term outcomes over long-term effects or consequences (Skrynka & Vincent, 2019; Wang & Dvorak, 2010). Additionally, research shows that hungry people tend to exhibit impatient tendencies (Otterbring, 2019b; Skrynka & Vincent, 2019), hence decisions on what to eat are more spontaneous with no regard to consequences if there are any (Gidlof, Ares, et al., 2021).

Recent studies show that people devote much of their attention to options that can quickly help them arrive at a goal while working to achieve food-related rewards (Glaholt, Wu & Reingold, 2010; Orquin & Kurzban, 2016). But it is not in all cases that hungry people make decisions that are not well informed. De Ridder et al. (2014) in a study among gamblers were able to prove that hungry people made well-informed decisions, which presupposes that hunger may even lead to improved decision-making. The foregoing would suggest that people only ate when hungry. But that is not the case. Feig, Piers, Kral, & Lowe (2018) found among a sample of university students in the North-eastern USA that eating in the absence of hunger was prevalent indicating that people did not eat due to hunger but out of loss of self-control.

Nutrition Knowledge

Nutrition knowledge is a significant predictor of eating behaviour and has a positive impact on food choices (Hendrie, Cox & Coveney, 2008 & Worsley, 2002). Worsley's (2002) study highlighted the areas of nutrition which consumers should know. These are the energy content of food, the role of fats, the sources of vitamins and minerals, and the sources of phytochemicals. Studies by Hendrie, Cox and Coveney, (2008) found that nutrition knowledge influences food choices thereby leading to a healthy lifestyle. Nutrition knowledge has also been claimed to have a profound influence on dietary behaviour (Harnack, Block, Subar, Lane, & Brand, 1997; Patterson, Kristal, Lynch, & White, 1995; Wardle, Parmenter, & Waller, 2000). Several studies have reported that increasing nutrition knowledge is associated with a higher intake of fruits and vegetables (Patterson et al., 1995; Wardle et al., 2000) and the general motivation to make healthy food choices (Christoph, Larson, Laska, & Neumark-Sztainer, 2018; Kim, Ellison, McFadden, & Prescott. 2021).

Grafova (2005) avers that people who become conscious of the link between poor nutrition and certain lifestyle health-related illnesses are more likely to eat balanced diets. Additionally, a study by Kolodinsky, Harvey-Berino, Berlin, Johnson and Reymed, (2007), among college students confirms the assertion by Grafova (2006) that, increased knowledge of dietary guidelines affected positively eating behaviour. They concluded that people who have an appreciable level of nutrition knowledge ate healthier by making the right food choices. Ha and Caine-Bioh (2011), You, Sung and Chang (2009) all intimate that as people become more aware of nutrition their food choices change positively.

Additionally, people's cooking skills are used to judge nutrition knowledge. It is assumed that people who can cook have some knowledge of nutrition and hence will decide when they are eating away from home based on that knowledge (Bruner & Chad, 2014; Chenhall, 2010). The foregoing advocating notwithstanding, the effect of information on nutrition leading to knowledge on healthy food choices has been found to have minimal impact since food choice is associated with the affective components of an individual's association with food rather than the cognitive (Birch & Lawley, 2012). Nutrition knowledge is only one among a variety of factors that influence the food choices and eating behaviours of consumers (Maidah, 2016).

Exposure, Experience and Life Course

Consumers' exposure and experience influence their food choices (Chen & Yang, 2014). Due to this food preferences are not stable as they are influenced by the context and frame in which the decision is made (Lusk & Briggeman, 2009). Accordingly, when people are faced with a decision-making problem regarding what to eat, they tend to simplify it based on the context and information at hand. As people encounter new things they learn and develop personal strategies. Therefore, people make their future choices based on past experiences (Köster, 2009).

Previous studies into this phenomenon found that the food that parents serve their children earlier in life affects their food preferences as they mature (Falciglia, Pabst, Couch, & Goody, 2004; Scaglioni, Salvioni, & Galimberti, 2008). The "gatekeeper" in food decision-making within the home, which is the mother figure, influences the parental choice of specific foods. Parents and familiar adults, peers and the praise or negative response for consuming certain

types of food in addition to the unfamiliar food that an individual is exposed to earlier in life (Nicklaus, Boggio, Chabanet, & Issanchou, 2004; Skinner, Carruth, Bounds, & Ziegler, 2002) shape food choice and acceptance during infancy, which eventually shapes food choices as people grow.

Another important life course factor in food choice is familiarity. Familiarity with food plays a crucial role in its acceptance since it reduces the uncertainty that is associated with an unfamiliar food (Torrico et al., 2019). It also leads to a better match between people's expectations and the sensory properties of the food (Borgogno, Favotto, Corazzin, Cardello, & Piasentier, 2015). Therefore, purchase decisions are associated with familiarity (Tan, Fischer, Tinchin, et al., 2015). Individuals past food choices, thoughts, and feelings associated with those choices and the changing temporal, social, and historical contexts that shape those choices all make life course paths of food choice (Devine, Connors, Sobal, & Bisogni, 2003; Tan et al., 2015; Wethington & Johnson-Askew, 2009). Several studies point to the fact that familiarity with food affects the acceptability and hedonic ratings associated with it. Torrico et al. (2019) conducted a cross-cultural study among Asians and Westerners and concluded that familiarity was a major player in food liking and acceptance.

Food Related Factors

Food-related factors such as the sensory attributes of food, price, availability food type, method of preparation, form, seasoning, and food combinations all affect food choice. This section looks at some of these factors in detail.

Sensory Attributes

How consumers evaluate products has implications for liking and acceptability (Torricono, Hutchings et al., 2018). The sensory properties of food impact eating behaviours. These sensory properties come into play early in the consumption process as they influence food choices (Forde, 2018). McCrickerd and Forde (2016) highlight that the sensory properties of food such as taste, smell, texture and chemesthesis (flavour percept) not only influence food liking but also energy intake. The sensory attributes of a food guide consumers to the source and play a significant role in preferences, portion selection and how we experience fullness after consumption (McCrickerd & Forde, 2016). These sensory attributes include sight, smell, taste, and texture, which are subsequently discussed.

Visual Cues

Visual cues form the first basis for food selection before other senses come into play. This is justifiable in the popular maxim that “we eat with our eyes.” The appearance of food triggers meal initiation (Wansink, 2004). One important visual cue is the colour of the food. Food colour forms the basis for consumer expectations regarding flavour, quality, and taste (Hutchings, 2003; Wei, Ou, Luo, & Hutchings, 2012). Food producers and marketers have harnessed this property by taking pains to research how they would appealingly present their products to encourage approach and consumption (Marchiori, Waroquier, & Klein, 2011; Marchiori, Waroquier, & Klein, 2012).

Portion size is another important visual cue. Subdividing food into smaller units could connote more and food producers have used this to people into purchasing food (Wadhera, & Capaldi-Phillips, 2014). Large portion sizes

have historically attracted consumers and contributed to restaurant success. Cullen (2004) found that portion size is particularly significant for younger consumers, who often make food choices based on price considerations. While larger portions can lead to increased calorie intake and a tendency to underestimate calorie consumption (Wansink & Chandon, 2006), smaller portions might better support healthier eating choices at restaurants (Jones, 2010). Smaller portions can promote healthier selections, although they may sometimes be perceived as insufficient for sustenance. Conversely, larger portions can encourage consumers to finish their meals, potentially leading to higher calorie consumption.

Odours

Food odours send important sensory signals to would-be consumers, thus shaping taste and flavour perceptions (Tauferova *et al.*, 2015). Food odours just like taste can signal to the individual whether food is edible or not, however, unlike taste the person does not need to come into direct contact with the food to have that sense of edibility (Stevenson, 2010). This property of food means that it has become an important means of attracting consumers to a food service establishment (Chebat & Michon, 2003).

Taste

Taste is a proximal sense that requires direct contact with the food with the tongue before one can perceive it (McClerkerd & Forde, 2016). According to Spence (2016, p.1), taste refers to “the perception of sweet, sour, bitter, salty, and the other basic tastes, which are detected by the gustatory receptors found primarily in the oral cavity.” The basic tastes signal to the individual the nutrient content of the food. The sweet taste is thought to indicate carbohydrates while

salty and savoury tastes connote protein (Zijlstra, Buckman, Mars, Stafleu, Ruijschop, & de Graaf, 2011; de Wijk, Polet, Boek, Coenraad, & Bult, 2012). The sour and bitter taste, on the hand, could signal foods that are unripe and harmful to ingest (Ruijschop, Zijlstra, & Boelrijk, 2011; Seuvre, Diaz, Cayot, & Voilley, 2004).

Taste influences the quantity of food that is consumed. People eat food that has their preferred tastiness (Kim, Chung, Kim, Nielsen, Ishii, & O'Mahony, 2018). Bolhuis et al., (2017, 2016) state for example that the saltiness or sweetness of food tends to reduce people's sensitivity to the fat content, hence overconsumption. A European study on the importance of taste in the food selection process found a unanimous endorsement of taste as important in the selection of food did not differ among different segments of consumers (Perez-Cueto et al., 2010). Jones (2010) found that taste was the most important consideration when deciding on healthy food choices. In addition, the taste was more important to those consumers whose food choices did not involve the food itself compared with those whose choices were made from their rational thoughts about food in a food choice (Szakaly et al., 2012). In sum, individual characteristics affect people's taste perceptions and hence the selection of specific food when eating out (Veeck, 2010).

Texture

One of the multimodal-sensory characteristics of food is its texture. Food texture is conceptualized through a variety of attributes, such as firmness, crunchiness, smoothness, creaminess, and thickness (McCrickerd & Forde, 2016). The texture is an indicator of quality (Maina, 2018). Hence, there are many food items that people patronise because of the texture expectations,

without which it becomes close to impossible if people will still choose them. Think for example of groundnut, plantain chips and lettuce. These items are supposed to be crispy and crunchy, and this texture has come to be associated with freshness (Spence, 2015). Once the freshness is gone people do not like them any longer.

The texture of food has been shown to increase the expectation of fullness as well and this further influences the portion sizes that are taken (McCrickerd et al., 2012, Hogenkamp et al., 2011, Yeomans & Chambers, 2011, Forde et al., 2013a). Therefore, at a typical sit-down meal, people are mindful of what quantities to select due to the texture. This phenomenon is explained by the longer gastrointestinal time it will takes the food to digest (Forde, 2018). Consequently, people normally do not eat heavy texturized meals later in the day. This also influences what is eaten at each mealtime and occasion with the assumption that thicker and chewier foods are more filling and take longer to digest (De Barros, & Cardoso, 2016), hence smaller portions or avoidance altogether in some situations.

Palatability

Palatability refers to the pleasure one derives from eating a particular food and is influenced by its sensory attributes such as taste, smell, texture, and appearance (Li, Jervis, & Drake, 2015). It is closely linked to meal size, with sweeter and higher-fat foods often having a strong sensory appeal. Consequently, food is not just seen as a source of nourishment but is frequently consumed for the pleasure it provides. The impact of palatability on appetite and food intake has been explored in various studies (Forde, 2018; Romagny, Ginon, & Salles, 2017). Research indicates that increased palatability generally

leads to greater food intake. However, the effect of palatability on appetite in the period after consumption remains less clear (Forde et al., 2015).

Nutrition

Good nutrition is important for healthy lifestyles. The discovery of food components (nutrients) that are important for health has helped in mankind's understanding of the relationship between the two (Wardlaw & Smith, 2009). To the extent which we talk about the food pyramid point to our understanding of the importance of nutrition to human health. Health concerns have increased among people due to the association of many non-communicable diseases with poor nutrition and eating habits (Kourouniotis et al., 2016). However, the nutrition of a given food cannot be estimated using sensory attributes of the food. Therefore, recent efforts at helping people to make healthy food choices are the provision of nutrition information (Cheung, Gillebaart, et al., 2019).

Nutrition information is a credence attribute, which gives a basis for the healthiness of the food (Kaur et al., 2016; Zou & Liu, 2019). It also gives consumers an effective means to judge the authenticity of the food (Youn & Kim, 2017). Nutrition information is therefore important for making healthy food choices (Hieke & Harris, 2016). The quantities of various nutrients present in different foods that people consume vary greatly (Wardlaw & Smith, 2009) and this can result in either good or poor health. One important observation is the association that people make between food taste and nutrient content. Consequently, sweet-tasting food is consumed with the assumption that it is more nutritious leading to overconsumption (Sukkwai *et al.*, 2018).

Price

Price is one of the key factors influencing food choice. It also plays a substantial role in eating patterns and healthy behaviours (Costello et al., 2010; Popkin, Duffey, & Gordon-Larsen, 2005). Darmon and Drewnowski (2015) revealed that food prices and diet prices contributed to the socio-economic discrepancies in diet quality among people. For example, in some Western countries, deliberate tax breaks are given on fruits and vegetables to encourage consumption (Powell & Chaloupka, 2009).

Globally taxes have been imposed on consumer products that have been categorised as harmful thereby increasing their prices. A case in point is tobacco and soft drinks. Public health taxes imposed on them have reduced the number of people patronising those products (Jha, Chaloupka, Corrao, & Jacob, 2006; Brownell & Frieden, 2009; Vartanian, Schwartz, & Brownell, 2007). Therefore, a price decrease or increase in a product has the potential to affect consumption (Jha, Chaloupka, Corrao, & Jacob, 2006) since price sensitivity is a major determinant of food choice (Andreyeva, Long, & Brownell, 2010).

Moreover, although most people would want to consume local food (indigenously produced foods), they are sceptical about the premium price they must pay, as they believe that local food and conventional foods are not priced the same (Hiamey, 2017). In a study asking about willingness to pay a premium for organic products, about 27 per cent of the respondents answered that they would not consume organic products because of the high price (Diaz et al., 2012).

Food prices play a significant role in eating patterns and healthy behaviours (Costello et al., 2010; Popkin, Duffey, & Gordon-Larsen, 2005).

Previous research examining healthy food choice behaviours found that choices were often evaluated by the cost of the healthy food (Chouinard et al., 2010; Epstein et al., 2007; Epstein et al., 2006). Energy-dense food (high in fat and sugar but low in fruit and vegetables) is cheaper than healthy food in Europe (Darmon et al., 2004). Similarly, Jetter and Cassady (2006) note that healthy foods are more expensive than less healthy ones, hence with most other factors held constant most people will buy inexpensive food. This might be the reason eating healthily is considered sometimes only after essential human needs have been met.

Environmental Determinants of Food Choice

Environmental factors which are both physical and social are external to an individual and may affect behaviour (Rankin et al., 2017), with the individual having little control over them. Some of these factors include the following:

The Food Environment

The food environment is defined to include home, community, and media/information environments (Glanz, Sallis, Saelens, & Frank, 2005). The link between the environment and food choices has long been established (Chen & Yang, 2014; McEntee & Agyeman, 2010). Also, the relationship between neighbourhood environments and healthy food choices has been established (Rosenheck, 2008; Popkin, Duffey & Gordon-Larsen, 2005). The availability and the development of food retail outlets have also been noted to influence eating behaviour (Cummins, Findlay, Petticrew, & Sparks, 2005, Wrigley, Warm, Margetts, & Lowe, 2004).

Environmental determinants of food choice and intake include the community food environment (availability and accessibility to food outlets), the general food environment which is the availability of food and the types and quantities that are available (Dean & Sharkey, 2011; Jaeger, Bava, & Worch et al., 2011; Nie & Zepada, 2011; Penny, Brown, Maguire, Kuhn, & Monsivais, 2015). Others include the physical elements of the environment conceptualised as seasonality and time and the facilities provided for storing and preparing food (Ball, Timperio & Crawford, 2006; Kolbe-Alexander, Buckmaster, Nossel, Dreyer, Fiona, Noakes & Lambert, 2008; Smallwood & Deacon, 2015). Sociological studies have included social groups, employment, mobility, and degree of urbanization as key factors for food choice, especially for meals eaten outside the home (Randal & Sanjur, 1981)

The community food environment is the immediate environment of people (home, school, and work environment) which determines not only the physical access to food but includes affordability, availability of culturally appropriate food and knowledge about nutrition (McEntee & Agyeman, 2010; McKinnon, Reedy, Morrisette, Lytle, & Yaroch, 2009; Shaw, 2006). Another reference to the community food environment is the neighbourhood food environment defined as a mixture of retail outlets (e.g., small convenience stores to supermarkets) as well as restaurants and takeaway (fast food) outlets (Lake, 2018, p. 2) and is not limited to the residential neighbourhood (Lake, Townshend, & Burgoine, 2017). The quality of an individual's food environment impacts the healthy choices that are made (Chen & Yang, 2014). In the general food purchase literature studies have confirmed that the

availability of grocery shops affects the food choices that people make (Walker, et al. 2011; Walker, Block, & Kawachi, 2012).

The geographic illustration of the problem is the use of the metaphor “food deserts”; referring to environments that do not have safe and affordable food outlets including restaurants. This metaphor is crucial in understanding the food choices that people make. In environments such as school and work, people can only make food choices from what there is. The issue of accessibility measured in terms of distance to the closest retail point (Apparicio et al., 2008, 2007) affects the food choices that people can make. For example, studies on how accessibility influenced food retail choice concluded that store characteristics such as proximity to transit were a major factor (Hillier et al., 2011; Jilcott et al., 2011; Kerr et al., 2012). Consequently, distance does influence where one gets food from (Chrisinger, Kallan, Whiteman, & Hiller, 2018).

Access as a concept though is more than distances covered. It includes dimensions such as availability, accessibility, affordability, acceptability, and accommodation of other food types (Penney & Prior, 2014). Therefore, people sometimes sacrifice safe food for what they can afford and there are times when people may have the money but will not have the food choices that they would want to make. That notwithstanding, studies by Hiller et al., (2011) and Ver Ploeg et al., (2012) have found that people travel beyond their closest environment to buy food. This situation is reflected in another principal factor in the food environment that can affect food choices: mobility.

Mobility is a measure of people’s movement within different time scales. Two central ones are the life-cycle scale and the daily scale. The first

one is that people's travel history can be associated with exposure and experience and how that affects food choices. Daily mobility has a substantial influence on the activities and the places that people are exposed to (Scheiner, 2006). Daily mobility characteristics such as the number of trips, length of trips and mode of transportation used all affect and are linked to exposure to specific activity spaces such as restaurants (Kestens, Lebel, Daniel, Thériault, & Pampalon, 2010; McKinnon, Reedy, Morrisette, Lytle, & Yaroeh, 2009; Stovel & Bolan, 2004).

The location of the food store as well as the mode and means of transport to get to it is an important determinant or influencer of food choices (Freedman, 2009; Hendrickson, Smith, & Eikenberry, 2006; Zenk, Odoms-Young, Dallas et al., 2011). In the convenience store market, studies have found that barriers to accessing the store such as location and mode of transport were particularly important in the decision to visit such stores. Relying on others who have means of transport in the absence of reliable public transport services affects the decision to visit food service stores (Freedman, 2009; Piacentini, Hibbert, & Al-Dajani, 2001; Zenk, Odoms-Young, Dallas et al., 2011; Hendrickson, Smith, & Eikenberry, 2006). How often have people not relied on colleagues with means of transport to help them get to the best food service establishments in town or have people just settled on what is close by because of the convenience that it provides in terms of proximity instead of having to move long distances just in search of the best cuisine in town?

Economic Environment

The economic environment affects the lifestyles of people including their food choice behaviours. In times of low incomes, unemployment, and

general hikes in the prices of goods and services, people turn to adjust the choices they make. Economic determinants such as wages (Tiwary, Gangopadhyay, Biswas, Nayak, Chatterjee, Chakraborty & Mukherjee, 2012), cost, and availability of food (Du Plessis, 2011), price and discounts (Waterlander, de Boer, Schuit, Seidell, & Steenhuis, 2013), brand names and variety (Berger, Draganska, & Simonson, 2007) and marketing strategies (Kushi, Byers, Doyle, Bandera, McCullough, Gansler, Andrews & Thun, 2006) all influence food choice. In general, food security is linked to poverty level (Baker, Schootman, Barnidge, & Kelly, 2006), which is linked to the quantity and quality of work that people engage in (Andreyeva, Long, & Brownell, 2010).

Poverty levels are cited as being an important measure in gauging food access and security (Apparicio et al., 2007; Baker et al., 2006; Bodor et al., 2007; Morton & Blanchard, 2007; Short, Guthman, & Raskin, 2007). Economic access is however not limited to only poverty, but other financial elements such as food prices and transportation costs that impact one's ability to acquire food. Furthermore, a study by Darmon et al., (2016) found that the quality of food choices made by people in a low-income category about those in the middle-income category were of less quality. This is an indication of the differences that price can have in the food choices that people make.

Social Groups, Social Norms, Social Settings, and Social Determinants

The social environment plays a significant role in human behaviour (Rankin, Kuznesof, et al., 2017). It includes colleagues and friends (Du Plessis, 2011), family traditions (Just, Heiman & Zilberman, 2007), social belonging

(Puoane, Matwa & Bradley, 2006) and media (McCluskey & Swinnen, 2011). Ellis (2013) argued that people make choices out of a need to gain and solidify social identity. This suggests that one can be pressured to make food choices (Barclay, Edling & Rydgren, 2013).

Another important aspect of the social environment is the social setting in which one makes the food choice decision. Renner, Sproesser, Strohbach and Schupp (2012) found that eating parties do affect what people eat. This is what Powell, Durham, and Lawler (2019) have termed social circumstances: eating alone, with friends or family members. Sometimes people eat just to please other people within the group (social norm) but will not normally eat that food if eating alone. Social norms influence the behaviour of people in many ways. For example, Robinson, Thomas, Avegard, and Higgs (2014) found from a meta-analysis that people make food choices if they find out that others are making those choices. Also, through a process known as social modelling, it has been found that people make food choices that have been influenced by their partners even if they are eating out alone (Cruwys, Bevelander & Hermans, 2015). This goes to show the influence of others on the food choices that are made when eating out.

The Influence of Media and Advertising

The media environment plays a significant role in the food choices of individuals. The media has the power to draw people's attention to healthy eating whilst at the same time heavy advertisement has led people to make unhealthy food choices (EUFIC, 2011; Hastings et al., 2003; WHO, 2006). Studies from the USA, UK and Canada confirm the role played by television-

based media and public advertising on food choices. Advertising and other marketing techniques were seen to be influencing people's out-of-home food choices (McGuffin, Price, McCaffrey et al., 2015; Pitt et al., 2017).

Magazines, radio and television, journals, and the internet (e.g. Ha & Caine-Bish, 2011; Ha & Caine-Bish, 2009; White, Yong, Tania, & Elizabeth, 2009; You, Sung, & Chang, 2009; Lee, Lee, & Kim, 2005; Powers, Struempfer, Guarino, & Parmer, 2005; Jacobson, 2001) also provide valuable information on how people could make healthy food choices. For instance, the mainstream media and modern means of communication are emphasizing growing obesogenic and food-related negative health problems and with this, the public is gaining knowledge and information about food decisions, thus being more diet-conscious (Bublitz, Peracchio & Block, 2010). In summary, the role of the food environment on food choices is inconclusive in this literature review and other factors influence people's food choices other than the environment (Black, Moon, & Baird, 2014).

Chapter Summary

The chapter was in two parts. The first part looked at the factors influencing restaurant choice as a precursor for food choices. This is because restaurants provide specific meals and where one chooses to eat will affect the food choices available. The second part looked at the factors determining food choices. There are three broad categories of constructs determining food choices. These are person-related, food-related, and environmental. All these were discussed by looking at the specific factors underlying each. The next chapter looks at the methodology adopted for this study. It focuses on the study

context, research philosophy and study design, sampling procedures, data collection, data processing and analysis and ethical issues.

CHAPTER FOUR

METHODOLOGY

Introduction

This chapter describes the research design and the methods used in this study. Specifically, the chapter focuses on the description and justification for the choice of the study area, research philosophy, research design, data and sources, target population, sample size, sampling procedures, methods of data collection, data collection instrument, data processing and analysis, and ethical issues.

Study Area

The study area is Sekondi-Takoradi Metropolis. The Sekondi-Takoradi Metropolis is a significant urban center in Ghana, located in the Western Region and serving as its regional capital. It comprises the towns of Sekondi and Takoradi, which have grown together into a single urban area, effectively merging their boundaries. The metropolis holds strategic importance as Ghana's third-largest city, often referred to as the "Oil City" due to the nation's oil discovery, which boosted its economic profile.

Geographically, Sekondi-Takoradi covers a land area of 192 square kilometers and is bounded by: the Mpohor-Wassa East District to the north, the Gulf of Guinea to the south, the Ahanta West District to the west, and the Shama District to the east (Arthur, 2016). Its coastal location places it on the Trans-West African Highway, about 280 kilometers west of Accra, Ghana's capital, and approximately 130 kilometers east of the border with Côte d'Ivoire. Sekondi

serves as the administrative center of the metropolis, which is one of 22 districts in the Western Region.

According to the 2021 Ghana National Population and Housing Census, the population of Sekondi-Takoradi stands at 245,382. Of this figure, 48.6% are males, and 51.4% are females. In terms of age distribution, 44.8% of the population is below the age of 14, while 51.9% fall within the working-age group of 15 to 64 years. Only 3.3% of the population is aged 65 and above. Approximately 60% of the total population is classified as economically active.

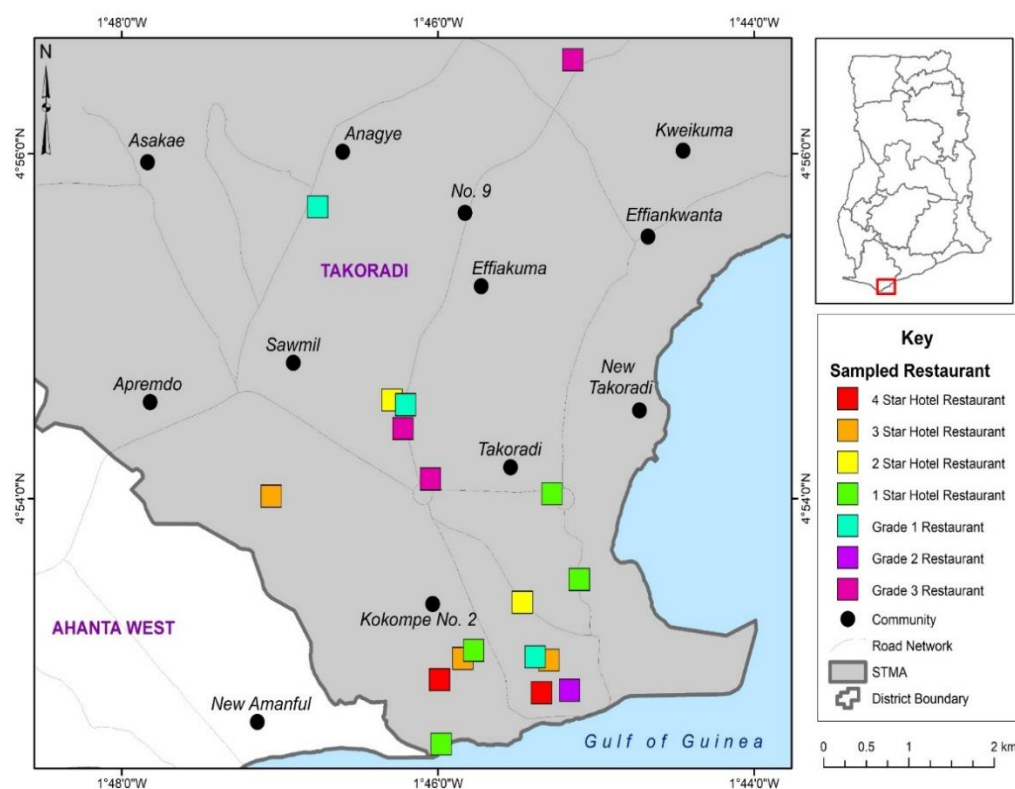


Figure 5: Map of the Study Area Showing Some Selected Restaurants

Source: Cartography and Remote Sensing Unit of the Department of Geography and Regional Planning, UCC

The local economy of Sekondi-Takoradi Metropolis is primarily divided into three key sectors: manufacturing, agriculture, and services. The metropolis is home to several manufacturing industries, including those involved in cement

production, cocoa processing, paper manufacturing, timber processing, and other small-scale industries (Mensah, Gough & Simon, 2018). Additionally, a range of micro-enterprises operate in the area, such as confectionery production, sachet and bottled water manufacturing, batik, tie and dye, leatherwork, and agro-processing.

In the agricultural sector, the two main activities are crop farming and fishing. Crop farming, however, is largely at the subsistence level, while fishing remains the dominant agricultural activity due to the metropolis' extensive coastline. Major crops grown include maize, cassava, plantain, citrus, coconut, and oil palm. Despite the prominence of fishing, the sector faces challenges, with fish production declining due to factors like artisanal fishing, pair trawling by large trawlers, and unsustainable fishing practices (Owusu, 2020).

The services sector is the largest employer in the Sekondi-Takoradi Metropolis, encompassing a wide range of activities such as shipping and forwarding, hotel, hostel, and restaurant services, bulk oil storage and distribution, retail, transport services, harbor and port services, commerce, and support services for oil drilling and exploration. While the metropolis lacks unique tourist attractions, there is potential for tourism development. Fort Orange in Sekondi, which could serve as a heritage site, is currently being used as a lighthouse by the Ports Authority. Additionally, there is a monkey sanctuary near the central business district and a long stretch of coastline that could be developed into attractive beach sites, with beach sports for holiday travelers. A key cultural highlight is the Ankos Festival, also known as the Takoradi street carnival or Masquerade Festival, which is celebrated annually. The festival

draws crowds as groups of people dress in colorful, elaborate costumes and showcase their talents through dance, making it a popular local attraction.

The choice of Takoradi was premised on several reasons. Sekondi-Takoradi Metropolis is recognised as one of the three core areas of the country's economic activities, particularly due to its oil discovery (Acheampong, Yu, et al., 2018). Takoradi plays host to many guests who are partakers in Ghana's new oil economy. It is also an industrial and commercial centre with historical and cultural importance to Ghana. It is strategically located to the sea, the airport and accessibility to major cities by rail and road. Additionally, it is located at the vertices of the country's proverbial golden triangle and is one of the most urbanized cities in Ghana.

In addition to the oil boom and dazzling economic activity, the area is home to several hospitality and tourism livelihood enterprises, including lodging and food and beverage businesses run by the locals. This area also has a large concentration of the grades of restaurants in the Western Region (GTA, 2017).

Research Philosophy

Research philosophy is grounded in the development of knowledge within a specific field and reflects considerations about methods such as whether to use questionnaires or conduct interviews (Saunders, Lewis & Thornhill, 2009). Two key philosophical traditions, positivism and interpretivism, dominate ontological and epistemological perspectives. Ontology concerns the nature of reality, while epistemology focuses on the relationship between the researcher and that reality (Edirisingha, 2012). These

ontological and epistemological beliefs shape how individuals perceive the world and interpret meaning, with methodology providing the framework for applying these beliefs (Brown, 2018). Therefore, understanding a researcher's worldview is essential, as it significantly influences the approach and outcomes of their study.

Gray (2014) argues that by having a deeper grasp of these beliefs, the researcher and the person using the research outputs will be able to appreciate the study's problems, information, and findings. Studying the world's nature, or ontology, describes one's beliefs regarding the constriction of reality. Realism and constructivism represent two opposed ontological stances (Grix, 2002). Realism relates to objectivism and frequently employs quantitative methods and positivist and post-positivist epistemologies (Gray, 2014). In addition, constructivism, associated with subjectivism, sees a constantly evolving reality in which interactions in the social environment impact what is true (Grix, 2002). This ontological perspective links to interpretivist epistemology and qualitative research methodologies.

Positivists, as outlined in Table 2, advocate for rigorous scientific and quantitative methods, distancing themselves from respondents' emotions and focusing on numerical data analysis. In contrast, interpretivists prefer qualitative, humanistic methods, favoring more flexible and personal research structures that capture the complexity of human interaction without the constraints of rigid frameworks (Edirisingha, 2012).

This study aligns with the positivist paradigm in social science research, which emphasizes the objectivity of knowledge (Kaboub, 2008). Positivism is based on the belief that researchers should focus on observable facts, treating

the world as external and objective (Wilson, 2010). Therefore, studies rooted in this paradigm rely solely on factual data, seeking to uncover objective truths through measurable evidence.

Table 2: Positivism, Interpretivism and Pragmatism

Philosophy	Research approach	Ontology	Axiology	Research strategy
Positivism	Deductive	Objective	Value-free	Quantitative
Interpretivism	Inductive	Subjective	Biased	Qualitative
Pragmatism	Deductive/ Inductive	Objective/ Subjective	Value- free/Biased	Quantitative and Qualitative

Source: Pizam & Mansfeld (1999)

In other words, as a philosophy, positivism adheres to the view that only factual knowledge gained through observation, including measurements that can be directly experienced and verified, is trustworthy (Park, Konge, & Artino, 2019). Kraus (2005) notes that phenomena operate by laws of cause and effect and therefore, can be discerned if the scientific approach is applied, hence with the positivist paradigm every phenomenon in the world can be measured.

Moreover, positivism also depends on structured and reliable observations that lead to statistical analysis. It has been noted that as a philosophy, positivism is the empiricist view that knowledge stems from human experience (Collins, 2010). In positivist studies, the researcher is limited to data collection and interpretation through the objective means and the findings are scientifically explained or described. Furthermore, in positivism, the researcher is detached from the study and there are no avenues for human interests within the study (Wahyuni, 2011). Crowther and Lancaster (2008) state that positivist

studies usually adopt the deductive approach, where you think up a theory for the topic, and then develop a scientific hypothesis to test it.

This study applied the positivist paradigm for several reasons. The study aims at generating quantifiable, measurable, and verifiable data. Therefore, the positivist paradigm is ideal. The positivist paradigm is preferred over the interpretivist paradigm because epistemologically, the researcher is independent of what is being researched, which makes it value-free and unbiased (Aliyu, Bello, Kasim & Martin, 2014). Additionally, the study will be situated with positivism because of its focus on ascertaining the food choices that people make when they eat out and capturing the varied factors study participants associate with making food choices. Likewise, this approach is popular in contemporary food choice studies.

Research Design

Cross-sectional surveys are designed to study some phenomenon by taking a cross-section of it at one time (Creswell, 2017). Cross-sectional surveys are particularly useful when one seeks to establish the presence of a phenomenon within a given population (Sedgwick, 2014). The assumption is that the characteristics of a cross-section of the population are representative of the entire population; therefore, inferences can be made on the population based on the sample. This study adopted the cross-sectional survey design since data would be collected just once from the sample on their restaurant choice and food choices and will be representative of what exists at the time of conducting the study.

Target Population

The study targeted consumers of restaurants in Takoradi at the time of data collection. To qualify for study participation, respondents were required to meet the following inclusion criteria: (i) adults aged 18 years and above. Age 18 is the legal age for voting in Ghana and the assumption is that at this age, people are mature enough to make an informed decision as crucial as electing people to represent them. Therefore, applying the same principle to making informed choices in life including where and what one eats it is expected that these people make informed choices; (ii) eating more than once in a restaurant; (iii) eating in the restaurant during the data collection. The second and third inclusion criteria were there as a means of quality assurance. This was to ensure that only persons who have eaten at the restaurants were recruited into the study.

Data and Sources

Both primary and secondary information were used. The primary data were obtained from restaurant customers in Takoradi. Secondary information was obtained from the Catering Directory and Hotel Directory (Ghana Tourism Authority, 2020) Specifically, a list of licensed formal sector catering establishments and hotel restaurants was used as a sampling frame for selecting respondents for the study. Additionally, articles from journals relating to the topic were consulted extensively.

Sample Size

A total of 820 consumers from 30 restaurants were considered as the sample size. This number was achieved by doing a reconnaissance survey in

seven selected restaurants in Sekondi-Takoradi, i.e. one from each grade. These restaurants gave the number of consumers that patronised each of these seven restaurants per day. Out of these numbers given by each of these seven restaurants, 50 per cent of the number of customers was taken for each stratum of restaurants and multiplied by the sample size of restaurants to get the sample size of 820 respondents for the study. The 30 restaurants sampled represented 50 per cent of independent restaurants and hotel restaurants used for the study.

The reason for using the restaurants in selecting respondents was to ensure that the respondents chosen, had really used the services of the restaurants. It was also to enable the researcher to find out which foods/ dishes will be chosen by the respondents by the various restaurant types.

Sampling Technique and Procedure

This study employed convenient or accidental sampling technique, to select the desired respondents. This was used because of the absence of a valid sample frame. Before the selection of the respondents, the restaurants were selected. The catering and hotel directory was obtained from the Ghana Tourism Authority. This document outlines the list of all licenced formal sector catering establishments and licenced hotels in Ghana as well as the region, name of the establishment, location, postal/GPS address, telephone numbers, email address, seating/bed capacity, license number, grade (Ghana Tourism Authority, 2020).

The sampling frame for selecting the restaurants was a list of all the two categories of restaurants in Sekondi-Takoradi. Thus, the independent licenced restaurants and star-rated licenced hotel restaurants in Takoradi were obtained from the Ghana Tourism Authority Catering and Hotel Directory (Ghana

Tourism Authority, 2017). These restaurants were subcategorised using the grading for the independent restaurants (IR) and star rating for the hotel restaurants (HR). The study obtained the first three subcategories of independent licenced restaurants (thus, grade 1 restaurant; grade 2 restaurant; and grade 3 restaurant) to represent the Independent Restaurant (IR) for the study. It also included the star-rated hotel restaurants (4-star hotel restaurant; 3-star hotel restaurant; 2-star hotel restaurant; and 1-star hotel restaurant) to represent the hotel restaurants (HR) for the study. However, according to Edwards et al (2007), the problem with using an existing database as a sampling frame is that the database may be incomplete, inaccurate or may be out of date. The sampling frame for the independent restaurants and hotel restaurants were 24 and 29 respectively (Table 3). Therefore, each grade or star represented a stratum.

In the selection of a sample size for the restaurants, all 4-star and 3-star hotel restaurants were selected because they were few. Fifty (50) percent from all independent and 1-star and 2-star hotel restaurants were selected randomly. In selecting the 50 percent, each of the restaurants in the sampling frame was given a unique number. The restaurants were selected using random numbers until the actual sample size was reached for each stratum. A replacement list was also generated for restaurants that were unwilling to participate.

Table 3: Distribution of Respondents' Sample Size by Restaurant Type

Type of Restaurant	Total Population of Restaurants	Sample Size of Restaurants	Average (50%) Number of the Customers/Day	Sample Size of Respondents
<i>Independent Restaurants</i>				
Grade 1	7	4	35	140
Grade 2	6	3	20	60
Grade 3	11	6	30	180
Total	24	13		380
<i>Hotel Restaurants</i>				
4-star	2	2	45	90
3-star	3	3	50	150
2-star	8	4	20	80
1-star	16	8	15	120
Total	29	17		440
Grand Total				820

Source: Field Survey, Boison (2021)

Lastly, the actual respondents for the study (consumers) were sampled for the various restaurant types. In selecting the respondents, restaurants gave the average number of consumers that patronised the restaurants per day and the average number was struck for each stratum of restaurants. From this average number, 50 percent was taken for each category of restaurants and then multiplied by the sample size of restaurants to determine the sample size of restaurant consumers. Convenience sampling was employed to select respondents at different restaurants. Although convenience sampling is often associated with selection biases (Mackey & Gass, 2005) and tends to be non-representative of the general population (Babbie, 2007), measures were taken

to mitigate these biases and achieve some level of representativeness. Specifically, 1) the researcher systematically selected every third individual at the entrance, and 2) for customers arriving in groups, only one individual was chosen to participate until the desired sample size was met. These steps aimed to address the issue of group bias (Adongo, Taale, & Adam, 2018).

Research Instrument

The quantitative research paradigm requires the use of questionnaires in collecting data. It consisted of both close and open-ended questions and open-ended questions. The questionnaires used for data collection comprised four sections.

The first section solicited information on restaurant choice factors from consumers in Takoradi. The questions in this module were based on works by Chua, Karim, Lee, and Han (2020), Ayenigbara and Fadoju (2020), Bae, Slevitch, and Tomas (2018), Chen, Wu, Tsai, Chang, and Chen (2020), Han and Hyun (2017) Lin, Sharma, and Ouyang (2020) and Yi, Zhao, and Joung (2018). The respondents were asked to state their most preferred restaurant in Takoradi. Again, respondents were asked about their main reason for eating out in restaurants (meal occasion) and what meal they usually eat out in restaurants (mealtime). Lastly, consumers were asked to rate factors influencing their choice of a restaurant. Thirteen items were identified and measured using a 4-point Likert scale from 1 'not important' to 4 'very important'. The second section looked at the favourite cuisines of consumers and the types of food consumed in restaurants in Takoradi. The questions were open and close-

ended. Respondents were required to provide the names and combinations of dishes consumed when eating out.

The third section looked at the food choice factors by adapting the original 15 factors of The Eating Motivation Survey (TEMS) by Renner et al. (2012) and Phan and Chambers (2016). This is a calibrated scale that has been used in research involving food choice and consumption. The acceptability of the instrument is due to how the final scale items were derived. The survey looked at previous research on factors motivating food selection and through expert review arrived at a survey scale that included 13 factors consisting of 67 items to gauge why people eat what they eat.

The items were drawn from the Food Choice Questionnaire (Steptoe et al., 1995), the Motivations to Eat Scale (Jackson et al., 2003), the Affective and Cognitive Origins of Likings and Dislikes (Letarte, Dube, & Troche, 1997), the Food Choice Motives among Women questionnaire (Lindeman & Stark, 1999), the Ethical Food Choice Motives questionnaire (Lindeman & Väänänen, 2000), the Health and Taste Attitudes Questionnaire (Roininen et al., 1999), the Dutch Eating Behaviour Questionnaire (Van Strien et al., 1986), the Informational Bases of Food Attitudes questionnaire (Aikman, Crites, & Fabrigar, 2006), the Eating Inventory (Three Factor Eating Questionnaire, Stunkard and Messick, 1985); the Eating Motivation Trait Inventory (Horner, 1998), and the Food Motivation Scale (Martins & Pliner, 1998).

For the study, the thirteen factors included Sensory Appeal, Accessibility, Natural Concerns, Health, Hunger Need and Weight Control, Pleasure, Habits, Liking, Cognitive, Variety Seeking, Social Norms, Social Image, Economic and Political. These factors were grouped into three main

categories. The items were measured using a 5-point Likert scale from 1 'strongly disagree' to 5 'strongly agree.' The first category (food-related factors) consisted of the first three factors, namely: Sensory Appeal/ Perceptual Features; Availability/ Accessibility of Food; and Natural Content. The second category (person-related factors) consisted of the next six factors namely: Biological Features (Health); Physiological Needs (Hunger Need and Weight Status); Psychological Components (Affection Regulation and Pleasure); Habits and Experience; Cognitive Features; and Variety Seeking. The third category (Socio-Cultural Factors) looked at the remaining four factors: Culture (Social Norms and Values); Social Image; Economic; and Environmental and Political.

The last section also solicited information on respondents' socio-demographics. Respondents responded to questions relating to age, gender, education, and income.

Data Collection Procedures

The researcher adopted an on-field method. This method entailed gathering data from respondents at various facilities (Chien, Rodger, & Copley, 2017). Respondents were intercepted at the entrances of various facilities and were subsequently engaged with in and around the facilities. Customers were approached and engaged in an informal conversation. Consequently, customers who agreed to participate in the study were asked to respond to a series of questions. During this encounter, the researcher introduced the study and clearly explained its purpose to them. This approach was intended to obtain informed consent from the participants. Those who provided their consent were given a

questionnaire to complete on-site, which they returned to the researcher before leaving the facility.

Training of Field Assistants

Four field assistants were involved in the study. Two field assistants were master's students from the University of Cape Coast, one graduate from the University of Ghana and one graduate from Cape Coast Technical University. These four field assistants were chosen for the study after a two-day training on data collection.

During the training session, the assistants were given an overview of the purpose of the survey. They were taught how to select respondents and this was role-played within the team. The questions were reviewed thoroughly. Each question was read aloud and discussed so that each of the field assistants would clearly understand the research instrument.

Entry Protocols

In October 2021, discussions were held with some managers of restaurants and hotel restaurants about the content of the thesis, the feasibility of including consumers who patronise their restaurants, and the questions that would be posed to the consumer. This was followed up with a copy of an introductory letter from the Department of Hospitality and Tourism Management for the approval of the managers. Letters were also left for unavailable managers. Some restaurants and hotel restaurants gave their full support by facilitating contact with the consumers while most other managers declined this proposal.

A list of licensed grade restaurants and star hotel restaurants specifically the 2020 Directory for the Western Region was obtained from the Ghana Tourism Authority. A list was generated from the Directory for only licensed grade restaurants and star hotel restaurants in Takoradi. At the restaurant level, trained research assistants were introduced to supervisors on duty by managers for easy entry.

Fieldwork

The fieldwork was between 27th October and 29th November 2021. The research was conducted with the help of trained research assistants. The selection of respondents was based on how long one had stayed in the Metropolis, how many times one had eaten in a restaurant, and the willingness to participate in the study. Respondents who were willing to participate in the study were enlightened on the rationale of the study, the various sections in the questionnaire and their rights as respondents. A total of five hundred and eighty-eight (588) consumers took part in the survey. Most of the respondents answered the questionnaires by themselves while others sought assistance from the researcher. Respondents spent an average of 20 minutes to 25 minutes on an instrument. Upon completion of the questionnaires by respondents, the researcher thanked the participant and collected instruments.

Data Processing and Analysis

The dataset (588) was cleaned and edited for discrepancies, and 519 were deemed suitable for data analysis. All variables with missing values below 5% were treated using the Expectation Maximum algorithm (c.f. Gold &

Bentler, 2000). Data was analysed using IBM SPSS Statistics (v.27, IMB Corp., Armonk, U.S.A.). Descriptive statistics were used to summarize respondents' socio-demographic characteristics. Further analyses involving socio-demographic variables and types of food consumed, meal occasions, food choice factors and motives were analysed using Pearson chi-square test (χ^2), t-test and ANOVA.

Specifically, Objective 1 which seeks to analyse the factors influencing the choice of restaurants was tested using the Pearson chi-square test (χ^2), t-test and ANOVA. For Objective 2, which assessed the factors influencing the food choice of restaurant consumers, Exploratory Factor Analysis (EFA) was conducted using principal axis factoring to extract the factors responsible for food choice. The principal axis factoring according to Thompson (2004) and Renner et al (2012) produces more reliable correlation matrix results than other extraction techniques. For rotation, Promax rotation ideal for highly correlated factors was employed since several researchers conclude that food choice factors are correlated (Stephoe et al.1995). The suitability of data for factor analysis was determined using the Kaiser-Meyer-Olkin and Bartlett's sphericity tests. Cronbach's alpha was used to assess internal consistency and reliability before and after PCA. The number of factors to extract was determined by Kaiser's criterion (Kaiser, 1960). Further analysis after EFA was done using the Pearson chi-square test (χ^2), t-test and ANOVA.

Pearson chi-square test (χ^2), t-test and ANOVA were used to analyse Objective 3, which examined the food choices that people make when they eat out. The fourth objective evaluated the relationships between food choice

factors, restaurant choice factors, and types of food consumed using the Binary regression.

Research Quality and Ethical Considerations

Ethical issues have become important in social science research due to several instances of human subject abuse. It is expected that researchers follow certain principles, which deal with participants' informed consent, where people were made to understand the reason for the study and expected outcomes. Permission was also sought from the Institutional Review Board. Only those who agreed to participate in the study were given the research instrument to respond to. Anonymity and confidentiality were dealt with as the researcher ensured that the data was used for the intended purposes. It also used pseudonyms to protect the identity of the respondents as well as the restaurants involved in the study.

Chapter Summary

This chapter concentrated on the study's methodology. It covered the selection and justification of the study area, the research paradigm (positivist paradigm), the design (cross-sectional), the target population, sampling procedures, data collection methods, and research instruments. Additionally, the chapter addressed the fieldwork process and its associated challenges, as well as issues related to data preparation and analysis. Finally, research quality and ethical considerations were discussed. The next chapter will focus on the respondents' profiles and the factors influencing their choice of restaurants in Takoradi.

CHAPTER FIVE

RESPONDENTS' PROFILE AND FACTORS INFLUENCING THE CHOICE OF RESTAURANTS IN TAKORADI

Introduction

This chapter describes the respondents who participated in the study. It also examines the factors influencing the choice of restaurants across socio-demographic characteristics, restaurant choice factors across types of restaurants, occasion of meal by types of restaurants and occasion of meal by restaurant choice factors.

Socio-Demographic Characteristics of Respondents

This section summarizes the socio-demographic characteristics of respondents. The results from a total of 519 responses indicate that more males (63.6%) than females (34.6%) participated in the study. Also, more than two-thirds (65.9%) were single, and the remaining were married (34.1%). Having males and singles dominating the sample is consistent with current literature on eating out in Ghana. Boafo, Sarku, and Obodai (2021) noted that more young Ghanaian males (15-45 years) were eating out. The plausible reasons may be that men rarely cook or do not possess adequate basic cooking skills.

Further, in terms of age (Table 4), the majority of the respondents were between the ages of 18 and 30 years (56.1%). This was followed by those between the ages of 31-40 (29.1%) and 41-50 (12.3%). The least represented age group was 51 years and above (2.5%).

Table 4: Socio-Demographic Characteristics of Respondents

Socio-demographic	N (519)	Frequency (%)
Sex		
Male	330	63.6
Female	189	36.4
Marital status		
Single	342	65.9
Married	177	34.1
Age		
18-30	291	56.1
31-40	151	29.1
41-50	64	12.3
51+	13	2.5
Level of education		
Basic	15	2.9
Secondary	98	18.9
Tertiary	406	78.2
Employment status		
Employed	350	67.4
Unemployed	169	32.6
Income (GHC)		
≤ 1,499	131	33.16
1,500-3,499	117	29.62
3,500 ≥	147	33.16
Religion		
Christians	423	81.5
Moslems	36	6.9
Others	60	11.6
Ethnicity		
Akan	372	71.7
Ewe	54	10.4
Mole-Dagbani	30	5.8
Ga-Adangbe	25	4.8
Other	38	7.3
Nationality		
Ghanaian	481	92.7
Non-Ghanaian	38	7.3

Source: Field Survey, Boison (2021)

The extant literature has established that age does not only influence the quantities of food eaten but also the types of food and eating places. People's eating patterns change as they grow (O'Donnell, 1995). Hence, it can be

deduced that the youthful segment of the population patronises restaurant services in Takoradi.

Regarding respondents' educational level, over two-thirds (78.2%) of the respondents had tertiary education and less than one-third (18.9%) had secondary education. Only a few (2.9%) had basic education. The possible inference that could be drawn from this is that more educated people eat out in the study area, which could be linked to education and income levels.

It was also revealed that the majority (67.4%) of the respondents were employed while less than half (32.6%) were unemployed. This result could be attributed to three plausible reasons. First, due to busy work schedules, people who are employed are time-constrained to prepare and eat their meals. Secondly, because they are working, they may have discretionary income and therefore may be inclined to eat in restaurants.

In line with this assertion, there were comparatively more (37.19%) high-income earners (GH¢3,500 and above) than lower-income earners, less than GH¢1,500 (32.95%), the middle-income group that earned between GH¢1,500-3,499 (29.87%).

The religious and cultural affiliation of respondents was of interest to this study because of the established relationship between these variables and eating out behaviour (see Chapter Three). The predominant religion ascribed to by many of the respondents was Christianity (81.5%), followed by those who belonged to others (11.0%) and Islam (6.9.0%).

Ethnicity was used as a proxy for cultural affiliation. As presented in Table 3, two-thirds (71.7%) of the respondents were Akan followed by Ewe (10.4%), Mole-Dagbani (5.8%) and Ga-Adangbe (4.8%) respectively. Other

ethnic groups constituted 7.3 per cent. The dominance of the Akan respondents in the sample is consistent with the population of the study area. Although there are different subgroups within the Akan ethnic group, the predominant ethnic group in southern Ghana is a collective of the Akan extraction. These ethnic descents may influence the kind of foods eaten by respondents at the restaurants. A larger proportion of the respondents (92.7%) were Ghanaians with the remainder being non-Ghanaians.

Lastly, in terms of restaurant types (figure 6), most (32%) of the respondents sampled were from restaurant grade 3, followed by 3-star hotel restaurants (26.4%) and restaurant grade 1 (19.5%). The rest were distributed as follows; 1-star hotel restaurants (10.2%), restaurant grade 2 (5.2%), 2-star hotel restaurants (3.9%) and 4-star hotel restaurants (2.9%) respectively.

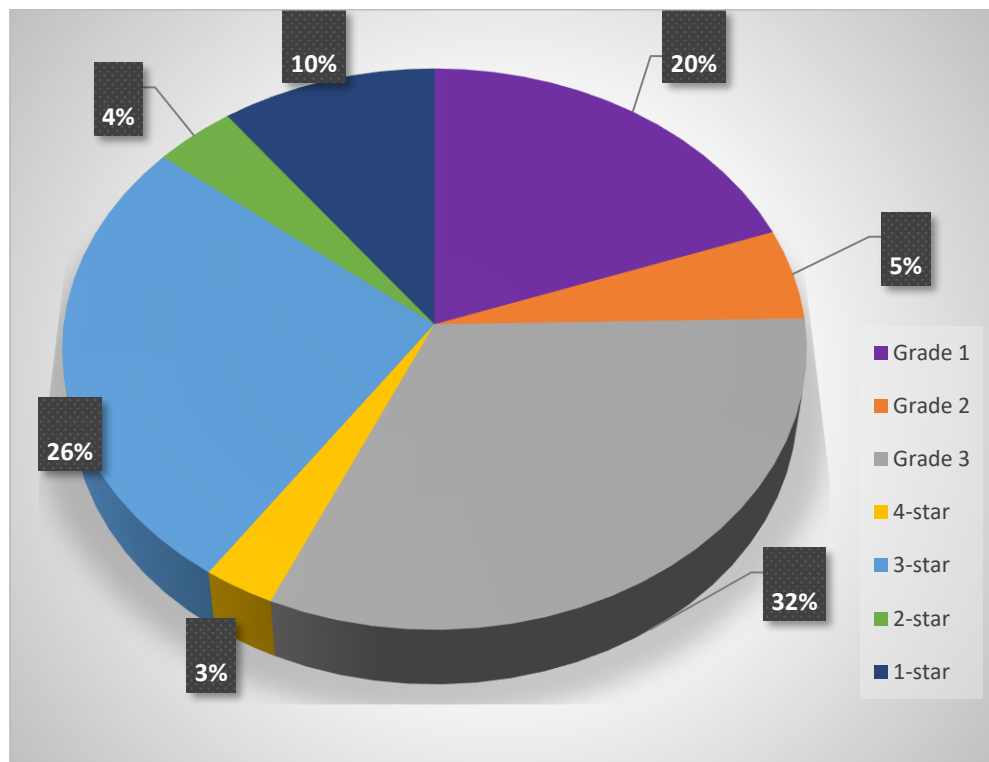


Figure 6: Restaurant Types

Source: Field Survey, Boison (2021)

Reasons for Eating Out in Restaurants

This section sought to provide an understanding of the reasons why respondents eat out in restaurants. This aligns with related studies that have reported patterns between reasons why people eat out and where they choose to eat (provide reference support).

Reasons why respondents eat out (meal occasion) in restaurants, were captured and the results are presented in Table 5. The results show that (32.0%) of the respondents eat out in restaurants because of family and friends. In other words, more people are eating out because of their families and friends than any other meal occasion in the study area. About 20.5 per cent eat out in restaurants only on special occasions and the rest of the respondents do so on dates (16.4%) and as an everyday routine (15.4%) respectively. While few (12.7%) of the respondents eat out at business meetings, just a handful (3.0%) attributed their reasons to other factors.

Table 5: Meal Occasions in Restaurants

Meal Occasion	Frequency	Percentage
Everyday Dining routine/Quick meal	138	15.4
Business meetings	114	12.7
Date night	147	16.4
Family/ friends	287	32.0
Special Occasion	184	20.5
Other events	27	3.0
Total	897 ^a	100.0

Note: ^a Multiple response

Source: Field Survey, Boison (2021)

Factors Influencing Choice of Restaurant

Drawing from Ayenigbara and Fadoju (2020), Bae, et al. (2018), Chen et al. (2020), Han and Hyun (2017) and Lin et al. (2020), 13 items were used to measure the factors influencing consumers' choice of restaurants in Takoradi. A four-point scale was used. This was done to avoid neutrality, that is, not having a middle or neutral option (like "neither important nor not important"). With this, respondents are forced to take a stance, providing more informative responses. It also helped in dealing with response bias, as respondents were less likely to automatically select the middle option (if present).

The respondents were therefore asked to indicate the extent to which each item is important or not important in choosing a restaurant. To facilitate easy understanding and interpretation without losing the quality of the data the four-point scale which was not important, somewhat important, important, and very important were recoded into two, namely: "Not important" (1-1.49) and "Important" (1.50-2.00). Thus, "Somewhat important", "Important" and "Very important" were recoded as "Important". Other researchers such as Adam and Amuquandoh (2013) used this approach in their study without any loss in the quality of data. The results are presented in Table 6 according to a descending order of importance to respondents.

The results show that the top five (5) factors in terms of ranking their importance when it comes to restaurant selection in Takoradi using the proportion of respondents are clean environment ($M=1.9595$), service excellence ($M=1.9576$) quality food ($M=1.9441$), staff cooperation ($M=1.9422$) and price ($M=1.9094$). These findings indicate that although all the factors are significant when it comes to restaurant selection cleanliness of the environment

is rated over service excellence, food quality, staff cooperation and the other factors in that sequence based on the percentage of responses. Cleanliness being top of the pile in this study is not out of order. This is consistent with studies on restaurant consumers and cleanliness. They have either intentionally or otherwise looked at the physical environment of a restaurant before, during and after the meal to gauge satisfaction and future intentions (Liu & Lee 2017). Consistent with that, Kim and Bachman (2019) found that attributes of cleanliness important to restaurant consumers are restaurant cleanliness, restroom personal hygiene and employee cleanliness behaviour.

Table 6: Factors Influencing Choice of Restaurants

Restaurant Choice Factors	Important	Not Important	M ^a	SD ^{a1}
Clean Environment	96.0	4.0	1.96	.20
Service Excellence	95.8	4.2	1.96	.20
Quality Food	94.4	5.6	1.94	.23
Staff Cooperation	94.2	5.8	1.94	.23
Price of Food Sold	90.9	9.1	1.91	.29
Ambience	90.6	9.4	1.91	.29
Menu Variety	89.4	10.6	1.89	.31
Ease of Access	86.5	13.5	1.87	.34
Location and Distance	86.1	13.9	1.86	.35
Personal Experience	85.4	14.6	1.85	.35
Word of Mouth	81.5	18.5	1.82	.39
Brand Reputation	77.1	22.9	1.77	.42
Brand Popularity	69.2	30.8	1.69	.46
<i>Overall</i>	87.5		1.87	.31

Scale: 1-1.49= not important, 1.50-2.0 Important

Note: ^aMean; ^{a1}Standard Deviation

Source: Field Survey, Boison (2021)

Other significant findings from the study are that word of mouth ($M=1.8150$), brand reputation ($M=1.7707$) and brand popularity ($M=1.6917$), although more than half of the respondents in each case seeing them as important when making restaurant choices, their importance relative to the other factors is less. However, in a study by Chua, Karim, Lee and Han (2020), the price of the menu item, word-of-mouth and personal experience were ranked most important among other factors.

All the factors used in this study to gauge the choice of restaurants are significant with varying levels of importance. This is in line with other studies into what factors account for restaurant selection. The difference though lies in which factors consumers consider principal in their decision. In the study by Ayenigbara and Fadoju (2020), the top major factors were food price, service quality, peer influence, ambience, and a hygienic environment. Bae, Slevitch and Tomas (2018) also found physical environment, service quality and food quality to be important attributes in restaurant selection with food quality being the most important when it comes to repeat visitation.

On the contrary, Lin, Sharma, and Ouyang (2020) and Han and Hyun (2017) found ownership, sourcing, and reputation as the topmost factors. For respondents in this study that was not the case albeit all these factors were considered important by respondents. The type of restaurant may determine the importance of each restaurant choice factor; hence the next table (Table 7) looks at the effect of the type of restaurant on the factors accounting for restaurant selection. The one-way ANOVA and Tukey's HSD were used to determine where these differences exist.

Table 7: Differences in Restaurant Choice Factors by Restaurant Type

Rest. Choice Factors	Clean Environment	Service Excellence	Quality Food	Staff Cooperation	Food Cost	Ambience	Menu Variety	Ease of Access	Location & Distance	Personal Experience	Word-of-Mouth	Brand Reputation	Brand Popularity
Rest. Grade													
Rest. Grade 1	1.9802*	1.9703	1.9604	1.9604*	1.8911	1.9208*	1.8812	1.8911	1.8317	1.8515	1.8416	1.7624	1.6436
Rest. Grade 2	1.9259*	1.8519*	1.8889	1.8889	1.9259	1.7037*	1.8889	1.8519	1.8889	1.9630*	1.7407	1.7778	1.6296
Rest. Grade 3	1.9518*	1.9639	1.9277	1.9398	1.9277	1.9157*	1.8788	1.8795	1.8795	1.8434	1.7771	1.7229	1.6988
4-star Hotel	1.5333*	2.0000	1.8000*	1.7333*	1.9333	1.5333*	1.9333	1.7333	1.7333	1.5333*	1.7333	1.5333	1.5333
Rest. 3-star Hotel	1.9927*	1.9781*	1.9854*	1.9781*	1.9124	1.9562*	1.9124	1.8467	1.8613	1.9051*	1.8759	1.8175	1.7007
Rest. 2-star Hotel	2.0000*	2.0000	2.0000	2.0000	1.9500	2.0000*	1.9500	1.9500	1.9500	1.9000	1.8500	1.9000	1.8000
Rest. 1-star Hotel	1.9811*	1.8868	1.9057	1.8868	1.8491	1.8868*	1.9057	1.8302	1.8491	1.7736	1.7736	1.8302	1.7736
Rest.	<i>F=15.02</i>	<i>F=2.98</i>	<i>F=2.700</i>	<i>F=3.690</i>	<i>F=.669</i>	<i>F=7.91</i>	<i>F=.34</i>	<i>F=.887</i>	<i>F=.799</i>	<i>F=3.59</i>	<i>F=1.30</i>	<i>F=1.95</i>	<i>F=1.03</i>
	3	0	<i>p=.014*</i>	<i>p=.001*</i>	<i>p=.674</i>	7	2	<i>p=.504</i>	<i>p=.571</i>	9	9	6	3
	<i>p=.000**</i>	<i>p=.007*</i>				<i>p=.000*</i>	<i>p=.915</i>			<i>p=.002*</i>	<i>p=.251</i>	<i>p=.070</i>	<i>p=.403</i>
						*				*			

Source: Field Survey, Boison (2021)

Rest.= Restaurant; *p≤.05, **p<.01

The results revealed that there were statistically significant differences in a clean environment across Rest. Grade 1, Rest. Grade 2, Rest. Grade 3, 4-star Hotel Rest., 3-star Hotel Rest., 2-star Hotel Rest. and 1-star Hotel Rest. [(F (6, 512) = 15.023, $p=0.000$], Service excellence between Rest. Grade 2 and 3-star Hotel Rest [F (6,512) = 2.980, $p=0.007$], Food quality between 4-star Hotel Rest. and 3-star Hotel Rest [F (6,512) = 2.700, $p=0.001$], Staff cooperation between Rest. Grade 1, 4-star Hotel and Rest., 3-star Hotel Rest [F (6,512) = 3.690, $p=0.001$], Ambience across Rest. Grade 1, Rest. Grade 2, Rest. Grade 3, 4-star Hotel Rest., 3-star Hotel Rest., 2-star Hotel Rest. and 1-star Hotel Rest [(F (6,512) = 7.917, $p=0.000$], and Personal experience between Rest. Grade 2, 4-star Hotel and Rest., 3-star Hotel Rest. [F (6,512) = 3.599, $p=0.002$].

The post hoc analysis (Tukey's HSD) revealed that the mean values of a clean environment were statistically significant for all categories of independent restaurants. Additionally, differences were noted in the mean values of a clean environment between 4 Star Hotel restaurants relative to 3 Star Hotel restaurants ($p<.001$, 95%, CI= -.6066, -.3121), 2 Star Hotel restaurants ($p<.001$, 95%, CI= -.6516, -.2817) and 1 Star Hotel restaurants ($p<.001$, 95%, CI= -.6062, -.2894).

A difference in the mean values in service excellence was also observed for Rest. Grade II compared to 3 Star Hotel restaurants ($p=.044$, 95%, CI= -.2505, -.0020). Also, a difference in the importance of food quality was noted between 4 Star Hotel restaurants and 3 Star Hotel restaurants ($p=.045$, 95%, CI= -.3687, -.0021). Concerning staff cooperation, a difference was observed among respondents in Restaurant Grade I and 4-Star Hotel Restaurant ($p=.007$, 95%, CI= .0386, .4155). Similarly, differences were observed in Ambience between

4 Star Hotel Restaurants compared to Restaurant Grade I ($p < .001$, 95%, CI = .2749, 1.5600) ($p = .001$, 95%, CI = .2749, 1.5600) ($p = .001$, 95%, CI = -.6181, -.1568), Restaurant Grade III ($p = .001$, 95%, CI = -.6071, -.1576), 3-Star Hotel Restaurant ($p < .001$, 95%, CI = -.6496, -.1962), 2-Star Hotel Restaurant ($p < .001$, 95%, CI = -.7514, -.1819) and 1-Star Hotel Restaurant ($p < .001$, 95%, CI = -.5973, -.1097).

Additional differences were observed in 3-Star Hotel Restaurants compared to Restaurant Grade II ($p < .001$, 95%, CI = .0770, .4280), between 2 Star Hotel Restaurant and Restaurant Grade II ($p < .001$, 95%, CI = .0504, .5422), between Restaurant Grade I and Restaurant Grade II ($p = .007$, 95%, CI = .0365, .3977), Restaurant Grade II and Restaurant Grade III ($p = .006$, 95%, CI = -.3849, -.0390). Regarding Personal Experience, a difference was noted in its importance among respondents in 4 Star Hotel Restaurant in comparison with Restaurant Grade I ($p = .018$, 95%, CI = -.6037, -.0326), Restaurant Grade II ($p = .003$, 95%, CI = -.7620, -.0973), Restaurant Grade III ($p = .018$, 95%, CI = -.5883, -.0318), 3 Star Hotel Restaurant ($p = .002$, 95%, CI = -.6525, -.0911), and 2 Star Hotel Restaurant ($p = .035$, 95%, CI = -.7192, -.0141).

These findings reveal that the respondents have varied perspectives on which restaurant factors they considered important in their choice of restaurants within the study area. The conceivable reason for these findings could be in the classification and the level of amenities, facilities, and services that each restaurant category is expected to provide. Each star rating and grading comes with its related level of expectation. For instance, a Grade 3 restaurant per its classification provides basic amenities, facilities and services compared to a Grade 1 restaurant. Similar assertions can be made for the restaurants that are

found in hotels. A 4-star hotel by classification is expected to provide amenities, facilities, and services that are way above what a 1-star hotel will provide. Since the restaurants in these hotels are not graded separately from their hotel classifications, a 4-Star hotel does well when it comes to ambience, clean environment, staff cooperation, service excellence and food quality in comparison to a 1-Star hotel.

The statistically insignificant differences observed in the mean scores for the price of food, menu variety, location and distance, ease of access, word of mouth, brand popularity and brand reputation point to the fact that respondents do not differ in how important these factors are to them across all the restaurants. One importance of the classification of hospitality facilities such as hotels and restaurants are for consumer protection and marketing. Therefore, the price of food in say a 4-Star hotel restaurant will be different and above that of a 1-Star. Consequently, each time a consumer steps into any of the restaurants their expectation of price is confirmed by the choice made. Invariably, one would not expect to pay more in a 1-Star facility than in a 4-Star.

Similar findings have been found across several studies investigating the importance of restaurant choice factors with the type of restaurants. In the fast-food sector, food safety, restaurant cleanliness, food quality, speed of service, the perceived value of the food and drink items, quality of service, staff friendliness, price, variety of menu, and close travel distance were important. (Shetu, 2021; Harrington, Ottenbacher, & Way, 2013; Kim, Hertzman, & Hwang, 2010; Ryn & Han, 2010). Although these studies did not state whether consumers differed from any of the choice factors, there is still ample evidence to conclude that restaurant selection factors differ by the type of restaurant. And

this is to be expected since guest expectations of say ambience in a fine-dining restaurant will be different from that of fast food. However, even within the same restaurant category, this may differ in terms of the premium respondents' place on each choice of restaurant factor.

In a study among fine-dining consumers, Chen and Antonelli (2020) found six attributes that were important to selection namely dietary preferences, design styles, additional value, delicate information collection and service commitment. Among these, the author noted that additional value, dietary preference, and service commitment were the most crucial. This implies that among the six attributes, there were three that those consumers differed on the level of importance to their restaurant selection. However, on additional value, dietary preferences, and service commitment they did not differ. Thus, consumers can differ on the importance of some selection attributes and may agree on some as has been observed in this study.

Restaurant Choice Factors by Socio-Demographics

Socio-demographic variables such as age, and gender have been found to influence consumer behaviour (Tian, Hao, Mu, Shi, & Feng, 2021; Sands, Ferraro, Campbell, Kietzmann, & Andonopoulou, 2020; Sands, Ferraro, Campbell, & Pallant, 2016). The relationship between restaurant choice factors and socio-demographic variables was examined. The independent samples t-test and the one-way ANOVA were used. Tukey's HSD was also used for the post hoc analysis. The t-test results reveal that there were no statistically significant differences in the mean scores of male and female respondents on restaurant choice factors. This is a bit surprising given that females, unlike their

male counterparts who make food choice decisions based on convenience, are reported in the literature as considering the quality of food over other factors in food choices convenience (Crane, Tangney, French, Wang, & Appelhans, 2019). Hence the quality of food should have been a point of difference but not in this study.

Regarding marital status, the t-test results indicate that single respondents and married differed on the importance of a clean environment ($t = -3.31$, $p < 0.01$) as a restaurant choice factor. The mean scores for single respondents ($M = 1.94$) versus married respondents ($M = 2.00$) show that those married give more credence to a clean environment than singles. The plausible reason for this could be the joint decision-making process, where the couples will have to decide. Other than that, all health, and safety-conscious individuals whether single or married are to a larger extent particular about how hygienic the food service environment is (Table 8).

The difference in the age groups was tested using the one-way ANOVA test. The ages were categorised into 18-30, 31-40, 41-50, and ≥ 51 . The results revealed a statistically significant difference at $p < .05$ in the age groups for clean environment [$F(3, 515) = 3.63$, $p = .01$], The post hoc analysis (Tukey's HSD) revealed that respondents in the age group 18-30 differed compared to 31-40 ($p = .04$, 95%, CI = $-.1026$, $-.0014$).

Table 8: Restaurant Choice Factors by Socio-Demographics

Rest. Choice Factors	N	Clean Environment	Service Excellence	Quality Food	Staff Cooperation	Food Cost	Ambience	Menu Variety	Ease of Access	Location & Distance	Personal Experience	Word-of-Mouth	Brand Reputation	Brand Popularity
Socio Demographic														
Sex														
Male	330	1.95	1.96	1.93	1.93	1.89	1.89	1.87	1.86	1.86	1.85	1.81	1.68	1.68
Female	189	1.97	1.95	1.96	1.96	1.93	1.92	1.92	1.86	1.85	1.84	1.81	1.69	1.69
<i>t-value</i>		-1.22	0.43	-1.81	-1.53	-1.62	-0.88	-1.78	0.13	0.20	0.33	0.00	-0.25	-0.25
<i>p-value</i>		0.22	0.66	0.07	0.12	0.10	0.37	0.07	0.89	0.83	0.73	0.99	0.80	0.80
Marital Status														
Single	342	1.93	1.95	1.94	1.93	1.91	1.88	1.90	1.87	1.87	1.84	1.82	1.75	1.69
Married	177	2.00	1.97	1.94	1.96	1.89	1.93	1.88	1.84	1.84	1.87	1.80	1.79	1.67
<i>t-value</i>		-3.39	-1.15	-0.36	-1.28	0.95	-1.81	0.65	0.82	0.89	-1.02	0.53	-1.00	0.48
<i>p-value</i>		0.00*	0.25	0.71	0.20	0.33	0.07*	0.51	0.41	0.37	0.30	0.59	0.31	0.62
Age														
18-30	291	1.93*	1.95	1.94*	1.93	1.91	1.86*	1.89	1.85	1.86	1.85	1.81	1.77	1.69
31-40	151	1.99*	1.97	1.97*	1.95	1.91	1.97*	1.90	1.88	1.85	1.87	1.83	1.80	1.70
41-50	64	2.00	1.95	1.95	1.95	1.89	1.95	1.88	1.91	1.91	1.84	1.78	1.73	1.69
≥51	13	2.00	2.00	1.77*	2.00	1.92	1.92	1.92	1.77	1.77	1.69	1.85	1.69	1.62
<i>F-value</i>		3.63	0.71	3.14	0.64	0.13	5.00	0.14	0.89	0.69	1.09	0.24	0.58	0.13
<i>p-value</i>		0.01	0.54	0.03	0.59	0.94	0.00	0.93	0.45	0.56	0.35	0.87	0.63	0.95
Education level														
Basic	15	1.93	1.87	1.87	1.87	2.00	1.73*	1.93	1.73	1.87	1.87	1.87	1.73	1.73
Secondary	98	1.92*	1.90*	1.88*	1.90	1.86	1.83*	1.90	1.87	1.87	1.78	1.72*	1.74	1.68

Table 8 Continued

Tertiary	406	1.97*	1.98*	1.96*	1.96	1.92	1.93*	1.89	1.87	1.86	1.87	1.84*	1.78	1.69
<i>F-value</i>		2.91	7.57	6.47	3.24	2.59	7.91	0.14	1.15	0.02	2.96	3.35	0.30	0.07
<i>p-value</i>		0.05	0.00	0.00	0.04	0.75	0.00	0.86	0.31	0.97	0.05	0.03	0.73	0.92
Employment status														
Employed	350	1.97	1.97	1.95	1.94	1.89	1.92	1.88	1.87	1.87	1.85	1.81	1.76	1.65
Unemployed	169	1.94	1.93	1.93	1.95	1.94	1.87	1.93	1.85	1.85	1.86	1.82	1.80	1.77
<i>t-value</i>		1.50	2.26	0.63	-0.31	-1.73	1.62	-1.72	0.88	0.69	-0.46	-0.06	-1.06	-2.67
<i>p-value</i>		0.13	0.03	0.53	0.74	0.08	0.12	0.09	0.38	0.49	0.64	0.95	0.30	0.01
Nationality														
Ghanaian	481	1.91	1.96	1.94	1.92	1.90	1.96	1.86	1.87	1.95	1.82	1.85	1.71	1.78
Non-Ghanaian	38	1.82	1.95	1.95	1.82	1.87	1.95	1.82	1.84	1.89	1.74	1.87	1.50	1.63
<i>t-value</i>		1.97	0.35	-0.14	2.09	0.53	0.33	0.84	0.43	1.38	1.29	-0.28	2.44	2.12
<i>p-value</i>		0.05*	0.73	0.86	0.04*	0.60	0.75	0.40	0.67	0.17	0.99	0.78	0.02*	0.03*

Source: Field Survey, Boison (2021).

*Post hoc test DNRI=Did Not Reveal Income

On food quality, there was a statistically significant difference [$F(3,515) = 3.14, p=.03$] among the age groups. The post hoc test revealed that respondents in the age group ≥ 51 differed relative to those in the age groups 18-30 ($p=.046, 95\%, CI=.0020, .3359$), 31-40 ($p=.02, 95\%, CI=-.3679, -.0274$) and 41-50 ($p=.04, 95\%, CI=-.3631, -.0047$) on the importance of quality of food to their restaurant choice decision-making. The probable reason could be that after age 50 there is more maturity in age and with its attendant health issues. People are therefore more concerned with the quality of the meals they eat. Another reason could be that as people age, their past experiences help them to easily tell between what quality is and not. They consequently will make decisions based on quality rather than say quantity. The ambience of a restaurant is another selection factor where the respondents statistically differed significantly on how important that is to their choice-making [$F(3, 513) = 5.0, p= 0.00$]. The post hoc analysis revealed that respondents in the age group 18-30 differed compared to those in 31-40 ($p=.00, 95\%, CI=-.1791, -.0295$). The respondents in the other age groups did not differ.

The differences in the importance of the restaurant choice factors were also analysed for respondents' levels of education (Basic, Secondary, and Tertiary). The ANOVA results revealed a statistically significant difference [$F(2,516) = 2.90, p=.05$] in a clean environment. The post hoc test shows that respondents who had secondary education differed compared to those with tertiary education ($p=.046, 95\%, CI=.0020, .3359$). As people become educated, they become knowledgeable about food safety issues. They are also mindful of where to eat generally. These could account for the difference in the importance of a clean environment to their restaurant choice decision. A similar statistically

significant difference is observed for service excellence [$F(2,516) = 7.57$, $p = .001$]. Tukey's HSD post hoc test reveals that respondents with tertiary education differed relative to those with secondary education ($p = .002$, 95%, $CI = .0247, .1301$). A higher level of education all things being equal comes with better-paying jobs. Such respondents can afford to eat from high-grade restaurants where services are excellent. This could be the reason accounting for the differences. For staff cooperation, the ANOVA results indicate statistically significant differences among respondents [$F(2,516) = 3.244$, $p = .04$]. However, the post hoc test did not reveal where the differences were.

Another restaurant choice factor that showed statistically significant differences among respondents was ambience [$F(2, 516) = 7.91$, $p = .00$]. The post hoc test shows that those with tertiary education differed relative to those with basic education ($p = .026$, 95%, $CI = .0192, .3762$) and those with secondary education ($p = .004$, 95%, $CI = .0281, .1809$). These results indicate that those with tertiary education want a restaurant that has a relaxing atmosphere. They will eat from high-grade restaurants where per their classification are required to provide a tasteful environment for consumers. Consequently, these people will consider ambience as very important when choosing a restaurant.

Concerning employment status, the t-test results indicate that employed and unemployed respondents differed on the importance of service excellence ($t = -2.26$, $p < 0.03$) as a restaurant choice factor. The mean scores for employed respondents ($M = 1.97$) and unemployed respondents ($M = 1.93$). The mean score shows that employed respondents look more at service excellence when making restaurant choices compared to unemployed respondents. Additionally, statistically significant differences were revealed between employed and

unemployed respondents on brand popularity ($t=-2.67$, $p=0.01$). The mean scores for employed ($M=1.63$) and unemployed ($M=1.77$) show that unemployed respondents were more tilted to brand popularity being a key factor in their choice than their employed counterparts.

Period of Meals (Meal Option) and Reasons for Eating Out (Meal Occasion) in Restaurants

A chi-square test was conducted to test the relationship between meal options (breakfast, brunch, lunch, mid-afternoon meal, and dinner) and meal occasions (Quick meal, Business meal, Date, Family and friends, Special occasion, and other events). With breakfast the following meal occasions were statistically significant; Quick meal [$\chi^2 (1, 519) = 21.186$, $p=0.000$], Business meal [$\chi^2 (1, 519) = 51.446$, $p=0.000$], Family and friends [$\chi^2 (1, 519) = 19.887$, $p=0.000$], Special occasion [$\chi^2 (1, 519) = 4.516$, $p=0.030$]. This means that breakfast is an important mealtime for several meal occasions.

Out of the six meal occasions measured in this study, only date and other events did not show any association with breakfast. Respondents are less likely to use breakfast for dating and other events. However, with the significant ones, it means that respondents in this study are more likely to use breakfast as an occasion to have a quick meal, a business meal, eat with family and friends, and on special occasions. The results for brunch show that only date [$\chi^2 (1, 519) = 4.131$, $p=0.048$] was statistically significant. For lunch, quick meal [$\chi^2 (1, 519) = 6.521$, $p=0.010$] and business meal [$\chi^2 (1, 519) = 15.841$, $p=0.000$] were statistically significant. In respect of mid-afternoon meals, date [$\chi^2 (1, 519) = 6.465$, $p=0.013$] and family and friends [$\chi^2 (1, 519) = 5.710$, $p=0.016$] were

statistically significant. When the meal option is dinner, date [$\chi^2 (1, 519) = 7.222, p=0.007$] and special occasion [$\chi^2 (1, 519) = 9.865, p=0.002$] were statistically significant.

The figures in Table 9 further reveal that the meal occasion for brunch time was going on a date. Respondents looking at other meal occasions will not or are less likely to consider brunch time. Lunchtime is one of the important mealtimes for most people. Most people will want a quick meal to get back to the office or to catch up with other events. The traditional break period for most employees in Ghana is an hour. Consequently, a statistically significant relationship established between quick meals and lunchtime confirms the fact that people are most likely to schedule a quick meal over lunch. It is not a period to be engaged for long hours.

The relationship between business meal over lunch among business people was statistically significant. The other meal occasions (dates, family and friends, special occasions, and other events) were not statistically significant, showing that people would consider lunchtime as probably not ideal for them.

Table 9: Relationship Between Respondents' Meal Option and Meal Occasion

Meal option/occasion	Response	Quick meal	Business meal	Date	Family & Friends	Special Occasion	Other events
Breakfast	No	77.2%	83.6%	70.6%	40.5%	62.6%	95.0%
	Yes	22.8%	16.4%	29.4%	59.5%	37.4%	5.0%
	X ² (p-Value)	21.186(.000) *	51.446(.000) *	1.580(.200)	19.887(.000) *	4.516(.030) *	.211(.654)
Brunch	No	74.4%	78.4%	73.1%	45.7%	65.1%	94.8%
	Yes	25.6%	21.6%	26.9%	54.3%	34.9%	5.2%
	X ² (p-Value)	1.995(.168)	.437(.515)	4.131(.048) *	1.730(.185)	.556(.459)	.008(.929)
Lunch	No	78.8%	85.8%	67.9%	48.3%	68.3%	95.4%
	Yes	21.3%	14.2%	32.1%	51.7%	31.7%	4.6%
	X ² (p-Value)	6.521(.010) *	15.841(.000) *	3.108(.078)	2.382(.123)	2.797(.094)	.347(.554)
Mid-afternoon	No	74.3%	77.6%	74.1%	47.2%	65.3%	94.6%
	Yes	25.7%	22.4%	25.9%	52.8%	34.7%	5.4%
	X ² (p-Value)	.923(.342)	.262(.606)	6.465(.013) *	5.710(.016) *	.621(.433)	.232(.621)
Dinner	No	73.9%	80.2%	77.0%	44.7%	71.2%	96.1%
	Yes	26.1%	19.8%	23.0%	55.3%	28.8%	3.9%
	X ² (p-Value)	.070(.791)	1.336(.247)	7.222(.007) **	.000(.983)	9.865(.002) **	1.775(.180)

Source: Field Survey, Boison (2021). *p<.05, **p<.01

Mid-afternoon, a period around 4:00 PM is typically a period to have a light meal. People will use it to eat something in anticipation of a dinner that will follow. It is revealing that the mid-afternoon time is the period the respondents are most likely to schedule a date meal or gather with family and friends. The other meal occasion did not show any statistically significant relationship with this mealtime. Finally, the dinner mealtime, date, and special occasions showed some association. People on a date make use of dinner as the mealtime to get to know each other. No wonder this meal has been called date night in some circles. Special occasions also work well during dinner mealtime. People celebrating anniversaries use this period. The other meal occasion according to the results of this study is not happening during dinner.

To further enhance the understanding gained on restaurant choice, the study compared the two responses (no and yes) to see if there were differences in the category of restaurant selected for the meal occasions studied. The chi-square test statistic was again used for the analysis. The results are captured in Table 10. From the table, statistically significant differences were observed for a quick meal [$X^2(6, 519) = 13.559, p=.020$] and a business meal [$X^2(6, 519) = 47.616, p=.000$]. According to these results, those responding either no or yes differed in where they will have quick meals and business meals. The other meal options (date, family and friends, special occasion, and other events) did not show any statistically significant differences across the restaurant categories. Those saying no or yes did not differ although by proportion their numbers are different for each meal occasion. Thus, a restaurant's category is less likely to be a key factor for those meal occasions.

People will select different restaurants for different meal options. The results from the study confirm this with those stating ‘no’ or ‘yes’ varying in proportions. However, to see if any differences observed were significant and not by chance, a chi-square analysis was performed. The results are presented in Table 11. The meal options with statistically significant differences observed among respondents are breakfast [$X^2(6, 519) = 87.562, p=0.000$], lunch [$X^2(6, 519) = 17.410, p=0.007$] and dinner [$X^2(6, 519) = 44.230, p=0.000$]. Statistically significant differences were reported for brunch and mid-afternoon mealtimes for the two groups (no and yes) although in proportion-wise, those responding no or yes differed across all the categories of restaurants.

Table 10: Meal Occasion and Category of Restaurants Patronised

Meal Occasion	Response	Rest Grade 1	Rest Grade 2	Rest Grade 3	4-Star Hotel Rest	3-Star Hotel Rest	2-Star Hotel Rest	1-Star Hotel Rest	X ² (p=value)
Quick Meal	No	21.3%	6.6%	29.1%	3.1%	24.9%	3.9%	11.0%	*13.559(.020)
	Yes	14.5%	1.4%	39.9%	2.2%	30.4%	3.6%	8.0%	
Business Meal	No	22.2%	5.2%	34.3%	3.0%	19.5%	4.4%	11.4%	*47.616(.000)
	Yes	9.6%	5.3%	23.7%	2.6%	50.9%	1.8%	6.1%	
Date	No	18.8%	5.9%	32.3%	2.7%	27.4%	4.0%	8.9%	4.716(.582)
	Yes	21.1%	3.4%	31.3%	3.4%	23.8%	3.4%	13.6%	
Family & Friends	No	14.2%	4.3%	31.9%	3.9%	31.5%	3.9%	10.3%	12.065(.058)
	Yes	23.7%	5.9%	32.1%	2.1%	22.3%	3.8%	10.1%	
Special Occasion	No	20.9%	5.4%	34.3%	2.1%	23.9%	4.2%	9.3%	8.147(.235)
	Yes	16.8%	4.9%	27.7%	4.3%	31.0%	3.3%	12.0%	
Other Events	No	19.1%	5.3%	31.5%	3.0%	27.0%	3.9%	10.2%	3.712(.588)
	Yes	25.9%	3.7%	40.7%	0.0%	14.8%	3.7%	11.1%	

Source: Field Survey, Boison (2022)

*p<0.05

Table 11: Respondents' Meal Options and Category of Restaurant Patronised

Meal Option	Response	Rest Grade 1	Rest Grade 2	Rest Grade 3	4-Star Hotel Rest	3-Star Hotel Rest	2-Star Hotel Rest	1-Star Hotel Rest	X ² (p=value)
Breakfast	No	22.1%	5.7%	36.7%	2.5%	19.6%	4.3%	9.1%	*87.562(.000)
	Yes	5.0%	2.5%	6.3%	5.0%	63.7%	1.3%	16.3%	
Brunch	No	19.4%	5.4%	31.7%	3.0%	25.9%	4.3%	10.3%	3.591(.453)
	Yes	20.0%	3.6%	34.5%	1.8%	30.9%	0.0%	9.1%	
Lunch	No	23.8%	7.1%	27.1%	4.6%	23.8%	2.9%	10.8%	**17.410(.007)
	Yes	15.8%	3.6%	36.2%	1.4%	28.7%	4.7%	9.7%	
Mid-afternoon	No	82.5	22.1	35.6	12.3	11.9	16.3	43.3	11.729(.061)
	Yes	18.9%	3.2%	44.2%	3.2%	15.8%	3.2%	11.6%	
Dinner	No	17.5%	3.5%	42.0%	3.1%	16.3%	4.3%	13.2%	*44.230(.000)
	Yes	21.4%	6.9%	22.1%	2.7%	36.3%	3.4%	7.3%	

Source: Field Survey, Boison (2022)

*p<0.05

**p≤0.00

The statistically significant results indicate that respondents are more likely to choose a different restaurant for different meal options. Where a 'no' respondent would have breakfast will differ from where a 'yes' respondent will do. On the statistically insignificant side, the 'no' or 'yes' respondents did not differ. Where they had brunch, and the mid-afternoon meal does not matter.

Chapter Summary

The analyses in this chapter began with the socio-demographics of the respondents. It was revealed that there were more males than females, more young people than their older counterparts, there are more single people than married, more employed people and more highly educated and high-income earners than less educated and low-income earners, respectively. The main reasons for eating out among respondents were to spend time with family and friends followed by special occasions and dates. With restaurant choice, all the factors studied were important to respondents. The top five factors in the proportion of respondents are a clean environment, service excellence, quality food, staff cooperation, and price.

Restaurant choice factors were also analysed in terms of restaurant categories with the results showing a statistically significant difference in ambience, clean environment, staff cooperation, service excellence, and quality food and personal experience. The analysis of the relationship between restaurant choice factors and respondents' socio-demographics revealed significant differences across all the socio-demographic variables.

The meal options and occasions were also analysed by comparing the two or how they differed in restaurant category and choice factors. For meal

options and meal occasions, the study revealed that breakfast was an important meal option for a quick meal, business meal, family and friends and special occasions. Brunch was for a date; a mid-afternoon meal was important for family and friends, and dinner was special. Differences were seen for meal occasion and restaurant choice factors for ambience, location, personal experience, brand popularity and reputation.

CHAPTER SIX

FACTORS INFLUENCING FOOD CHOICE OF RESTAURANT CONSUMERS

Introduction

This chapter presents the findings and discussions related to the factors influencing the food choices of restaurant consumers. The chapter explores food-related factors, person-related factors and socio-cultural factors influencing food choice in restaurants. The relationship between socio-demographic characteristics and a range of factors influencing restaurant consumers' food choices is also presented.

Factors Influencing Food Choice of Restaurant Customers

The literature attributes food choices by consumers to three constructs (food-related, person-related, and socio-cultural constructs). These were measured across thirteen factors with a total of sixty-seven items. Regarding food-related factors, seventeen items were generated and used to measure the food choice of consumers. These items were divided into three; sensory appeal/perceptual features, availability/ accessibility of food and the natural content of food. In terms of the person-related factors influencing food choice, twenty-nine items disaggregated into 6 parts including biological features (health), physiological needs, psychological components, habits, and experience, and cognitive, and variety-seeking factors were used. The sociocultural factors which were captured with 21 items were segregated into four parts. Thus, culture (social norms and values), social image, economic and environmental/political.

A five-point Likert scale was used, and consumers were asked to indicate the extent to which they agreed or disagreed with each item. The five-point Likert scale was collapsed into three namely, agree, neutral and disagree in agreement with the literature. Thus, strongly agree and agree were recorded as agree whereas strongly disagree and disagree were recorded as disagree. This was done to make the results simpler to grasp and analyze without compromising the data's quality.

The exploratory factor analysis (EFA) process was applied to all the items to examine their suitability for measuring the latent factors. Several steps were taken to achieve a stable model that could be used for further analysis. In the first EFA run, all the items had adequate commonalities above .2 (Child, 2006). However, the rotated factor matrix showed that many items had low loadings ($<.4$) and were cross-loaded on more than one factor. These items were eliminated (Field, 2013). A total of seventeen items were deleted. Six more EFA runs followed the same criteria and resulted in the removal of twenty-four more items. The model became stable at this point (no cross-loading or low-loading items in the rotated factor matrix).

The last step was to check if the items met the strict requirements for this study. Since the scale was existing, items with a factor loading below .71 were discarded (Awang, 2014; Hair et al., 2005). Three items were discarded. The correlation matrix was not random, as shown by Bartlett's test of sphericity (Bartlett, 1954), $\chi^2(231) = 5503.592$, $p < .000$, and the KMO statistic (Kaiser, 1974) was .883, which exceeded the minimum standard for factor analysis. The principal component analysis with varimax rotation produced twenty-two explanatory variables with a seven-factor solution. These seven factors

accounted for 73.807 % of the total variance. This implies that only 26 percent of the variance in the motive for food choice in restaurants in Takoradi was not explained by this study. The EFA results are presented in Table 12. These factors will be used for further analyses.

Factor one (1) titled *sensory appeal* comprised of pleasant aroma (.819), nice presentation (.819), appealing colour (.738), good taste (.721) and food quality (.692). This factor explained 33.295% of the total variance explained, the highest total variance explained by any of the seven factors. Thus, the perceptual feature of food is the most dominant factor that influenced consumer food choices in restaurants. Factor two (2) labelled *social interaction enabler* encapsulated respondents' quest to interact with others when eating out. This explained 11.362% of the total variance and included the following items enjoying social gatherings (.846), spending time with others (.822), and interacting with others (.806).

Factor three (3) is labelled *variety seeker* and was measured by satisfying curiosity (.825), eating exotic food (.819) and appealing food of others (.788). This factor explained 7.072% of the total variance. Factor four (4) named *chemical food safety* (Natural content) is made up of no additive (.842), no artificial ingredient (.814) and natural ingredient (.762) accounting for 6.127% of the total variance. Factor five (5) named *mood enhancer* accounted for 5.474% of the total variance. These items are loaded under this factor. Feeling relaxed (.842), enjoying a fulfilling day (.814), and feeling less lonely (.769).

Table 12: Exploratory Factor Analysis of Factors Influencing Food Choice

Factor	Variables included in the factor	Loading	Eigenvalue	% of variance explained
I	<i>Sensory Appeal</i>			
	Pleasant aroma	.819		
	Nice presentation	.819		
	Appealing colour	.738	7.325	33.295
	Good taste	.724		
	Quality food	.698		
II	<i>Social Interaction Enabler</i>			
	Enjoying social gathering	.846		
	Spending time with others	.822	2.500	11.362
	Interacting with others	.806		
III	<i>Variety Seeking</i>			
	Satisfying curiosity	.825		
	Eating exotic foods	.819	1.556	7.072
	Appealing to the food of other cultures	.788		
IV	<i>Chemical Food Safety (Natural Content)</i>			
	No additives	.842		
	No artificial ingredient	.814	1.348	6.127
	Natural ingredients	.762		

Table 12 Continued

<i>Mood Enhancer</i>				
V	Feeling relaxed	.780		
	Enjoying a fulfilling day	.770	1.204	5.474
	Feeling less lonely	.769		
<i>Physiological Need</i>				
VI	Provides energy	.789		
	Easy to digest	.763	1.190	5.408
	Satisfying hunger	.747		
<i>Knowledgeable Customers</i>				
VII	Knowledge of health implications	.845	1.115	5.069
	Knowledge of food nutrients	.804		
	Total			73.807

Source: Field Survey, Boison (2021).

Bartlett's Test of Sphericity $\chi^2(231) = 5503.592$, $p < .000$. KMO =.833.

Factor six (6) labelled *physiological need* is comprised of the following items. Provides energy (.789), is easy to digest (.763), and satisfies hunger (.747). This factor explained 5.408% of the total variance. The final factor labelled *knowledgeable consumer* explained 5.069% of the total variance. It is composed of knowledge of health implications (.845) and knowledge of food nutrients (.804). The results indicate that two (2) factors (Factor I and IV) are from the food-related construct, four (4) factors (Factors III, V, VI and VII) from the person-related construct and one factor (Factor II) from the socio-cultural related construct account for consumers food choice in Takoradi. The decreasing eigenvalues (7.325, 2.500, 1.556, 1.348, 1.204, 1.190, 1.115) show a decreasing value in the quality of the factors. These factors and variables (22) measuring them are used for all subsequent analyses. The next analysis looks at the descriptives (frequency distribution, mean and standard deviation) of these factors. The results are presented in Tables 13, 14, and 15.

Food-Related Factors Influencing Restaurant Consumers' Food Choice

From Table 13 the two food-related factors that formed part of the structure of factors explaining restaurant food choice were sensory appeal and food naturalness. For *sensory appeal*, the table shows that overall, over two-thirds (79.16%, $M=1.2894$, $SD=.59592$) of the respondents considered their sensory appeal in choosing what to eat. The average mean value also shows that responses were in the region of 'agree.' Specifically, a majority (88.6%, $M=1.1830$, $SD=.53742$) consider the tastefulness of the food, over two-thirds (83.2%, $M=1.2312$, $SD=.55273$) considered food quality, over two-thirds (80.3% $M=2.129$, $SD=1.064$) looked for a pleasant aroma.

Table 13: Food-Related Factors Influencing Restaurant Consumers' Food Choice

Statements	N	% in Agreement	Mean	SD	Alpha
<i>Sensory Appeal</i>					
I normally eat what I eat because it tastes good	519	88.6	1.1830	.53742	
I normally eat what I eat because the food served of high quality	519	83.2	1.2312	.55273	
I normally eat what I eat because it has a pleasant aroma	519	80.3	1.2620	.57011	
I normally eat what I eat because it is nicely presented	519	77.8	1.2987	.60358	
I normally eat what I eat because it has an appealing colour	519	65.9	1.4721	.71572	
<i>Overall</i>		<i>79.16</i>	<i>1.2894</i>	<i>.59592</i>	<i>.841</i>
<i>Food Naturalness</i>					
I normally eat what I eat because it contains natural ingredients	519	55.7	1.6281	.77762	
I normally eat what I eat because it contains no artificial ingredient	519	45.3	1.7919	.80960	
I normally eat what I eat because it contains no additives	519	44.9	1.7958	.80820	
<i>Overall</i>		<i>48.6</i>	<i>1.7386</i>	<i>.79847</i>	<i>.828</i>

Source: Fieldwork, 2022. Scale: 1.0-1.4.9- Agree, 1.5-2.49-Neutral, 2.50-3.0-Disagree.

Additionally, a considerable proportion (77.8%, $M=1.2987$, $SD=.60358$) considered the presentation of the food. More than half (65.9%, $M=1.2894$, $SD=.59592$) considered an appealing colour. The sensory attributes of food were important to food choice. Several studies confirm this fact (Forde & de Graaf, 2022; Martens, Sagastume, et al., 2022; Boesveldt, Bobowski, McCrickerd, 2018; Kim, Chung, Kim, Nielsen, Ishii, & O'Mahony, 2018). Bolhuis et al., 2017, 2016) Consequently, for that to be a principal factor influencing food choice in restaurants in Takoradi only confirms what the extant literature says.

Regarding *Food Naturalness*, the table shows that overall, a little below half (48.6%, $M=1.7574$, $SD=.79847$) of the respondents were ambivalent about the role played by the naturalness of food in choosing what to eat. The sparse number is explainable by the average mean score. This score is around 'neutral.' Thus, consumers are not sure whether the factor comes in when making food choices in restaurants. Specifically, a little over half (55.7%, $M=1.6281$, $SD=.77762$) were undecided on the natural ingredient, less than half (45.3%, $M=1.7919$, $SD=.80960$) ambivalent on the presence of artificial ingredients and another less than half (44.9% $M=1.7958$, $SD=.80820$) were undecided about the presence of additives.

The naturalness of food was seen at three levels; growing, processing and the final product served to consumers. As people become more aware of the negative consequences of the chemicals in the food, they tend to avoid them if they have to opportunity (Saraiva, Carrascosa, Raheem, et al, 2022). The mean scores and the standard deviation as well as the percentage of people agreeing to the naturalness of food as a factor in the selection of what to eat, contrary to

recent studies on naturalness and the use of food additives were low. This may be because more people are now conscious of additives and other chemicals in their food. A study by Carocho, Barreiro, Morales, and Ferreira (2014) found that consumers will choose natural foods and where that was not available, they will choose foods with natural additives rather than artificial additives. Recently, Fatemi, Kao, Schillo et al. (2023) found from analysing social media tweets that people were more concerned about the naturalness of food and therefore talked more about it. Again, Mauricio, Deliza and Nassu (2022) found among consumers in Brazil that as more explanation is given on the presence of specific additives in food the more consumers negatively reacted to it. Consumers portray food additives as risky and highly dangerous, and they also affect the naturalness of food (Degreef, 2019). Therefore, for the naturalness of food to be one of the underlying factors for food choice in restaurants is important, however, the level of neutrality and disagreement with the factor should be a concern. That notwithstanding, these findings are also consistent with Ronain et (2017) study that found that those with high values for the naturalness of food will look for that and those not having the same values will not matter so much, which could be the case for this study.

Person-Related Factors Influencing Restaurant Consumers' Food Choice

Four of the seven underlying factors of the structure of food choice in restaurants in Takoradi were person related. These were variety seeking, mood/emotion enhancement, physiological need, and knowledgeable consumer. The result shows that with *variety seeking* just over half (51.4%, $M=1.7283$, $SD=.82541$) of the respondents were hesitant about it as a motive

for their food choices. A closer look at the underlying variables revealed the following (Table 14). Food curiosity (53.4%, $M=1.7187$, $SD=.84164$), appealing food of others (52.8%, $M=1.6821$, $SD=.79882$) and enjoying exotic food (48.0%, $M=1.7842$, $SD=.83577$).

Variety seeking is one of the most principal factors in consumer behaviour. In the restaurant industry, this factor has been observed as contributing to why people visit new restaurants (Lee, Chua, & Han, 2020). Variety-seeking customers are even termed bad customers because they owe allegiance to no brand (Shang, Tong, & Wong, 2021). Several studies have looked at it and have concluded that it plays a significant role in food choices in restaurants. Ohlhansen and Langen (2021) in a study into meal choice in business canteens in Germany found that variety seeking was a crucial factor. Consumers who seek variety enjoy tasting new foods, trying new recipes, exploring the food of other cultures, and enjoying exotic meals (Derinalp Çanakçı & Birdir, 2020).

Variety seekers consciously look out for new food varieties rather than just eating new food (Reynolds, 2021). That could explain why variety seeking did not receive much agreement in this study although it is one of the factors that account for food choice in restaurants. Cadario and Morewedge (2022) specifically looked at variety seeking across meal occasions and found that it changes throughout meal occasions. Breakfast is one of the meal options that people did not seek variety, rather lunch and dinner were periods that people did so.

Table 14: Person-Related Factors Influencing Restaurant Consumers' Food Choice

Statements	N	% in Agreement	Mean	SD	Alpha
<i>Variety seeker</i>					
I need to satisfy my food curiosity	519	53.4	1.7187	.84164	
The food of other cultures appeals to me	519	52.8	1.6821	.79882	
I like to eat exotic foods	519	48.0	1.7842	.83577	
<i>Overall</i>		<i>51.4</i>	<i>1.7283</i>	<i>.82541</i>	<i>.841</i>
<i>Mood and emotion enhancers</i>					
I normally eat what I eat because it makes me feel relaxed	519	55.9	1.6301	.78225	
I normally eat what I eat because it makes my day complete and fulfilling	519	51.1	1.7303	.82462	
I normally eat what I eat because it makes me feel less lonely and frustrated	519	40.5	1.8940	.83270	
<i>Overall</i>		<i>49.2</i>	<i>1.7514</i>	<i>.81319</i>	<i>.831</i>
<i>Physiological need</i>					
I normally eat what I eat because it satisfies my hunger	519	76.5	1.3584	.69101	
I normally eat what I eat because it provides energy	519	71.1	1.4066	.69084	
I normally eat what I eat because it easily digests	519	64.5	1.4933	.72693	
<i>Overall</i>		<i>70.7</i>	<i>1.4194</i>	<i>.70292</i>	<i>.798</i>
<i>Knowledgeable consumer (Cognitive Factors)</i>					
My choice of food is influenced by knowledge of its health implication	519	57.6	1.6301	.80415	
My choice of food is influenced by my knowledge of the food nutrients	519	57.0	1.6474	.81548	
<i>Overall</i>		<i>57.3</i>	<i>1.6388</i>	<i>.80982</i>	<i>.797</i>

Source: Fieldwork, 2022. Scale: 1.0-1.49- Agree, 1.5-2.49-Neutral, 2.50-3.0-Disagree.

Concerning *mood and emotion enhancers*, the table reveals that close to half of the respondents (49.2%, $M=1.7574$, $SD=.81319$) considered it to be a motive for food choice. Again, the mean value showed that most of the responses were around 'neutral.' Specifically, a little over half (55.9%, $M=1.6301$, $SD=.78225$) of the respondents were unsure about their meal choice as a way of helping them to feel relaxed, about half (51.1%, $M=1.7303$, $SD=.82462$) were uncertain of their choice as a way of rewarding themselves after having a fulfilling day, probably, at work and less than half (40.5%, $M=1.8940$, $SD=.83270$) were indeterminate about the food choices they made is a way to let feel less lonely and frustrated. The mean score values for the variables lead to the conclusion that respondents were indecisive about the notion of eating to enhance their emotions/mood.

The findings that less than half of the respondents on average and the mean responses revolved around 'neutrality' for mood and emotion are consistent with the literature. Althemer and Urry (2019) note that people react to emotions differently and not all people use food as a medium for expressing their emotions. Again, Althiemier, Giles, Remedios, Kanarek and Urry (2021) in a quasi-experimental study on emotion and eating found that people did not alter their eating behaviour even among those who said they have the desire to eat more when stressed. Context is therefore important to what people eat to enhance their emotions. Poelman et al. (2020) looking at the eating behaviour of the Dutch population during COVID-19 found that about 83% did not change. Two studies in France had a different result, which confirms the varying ways people use food to manage their emotions and mood. Cherikh et al., (2020) found among residents in France that between 37-43% used food to manage

stress, feeling of emptiness and boredom during the COVID-19 pandemic. Contrary, Marty, De Lauzon-Guillan, Labesse and Nicklaus (2021) found that mood was the principal factor when making food choice decisions among their respondents during the pandemic, which also goes to confirm that mood could be a factor influencing food choice.

With *physiological needs*, the table shows that overall, over two-thirds (70.7%, $M=1.4194$, $SD=.70292$) of the respondents considered their physiological needs in choosing what to eat. The average mean value also shows that responses were in the region of 'agree.' Specifically, a majority (76.5%, $M=1.3584$, $SD=.69101$) consider the satisfaction of hunger, over two-thirds (71.1%, $M=1.4066$, $SD=.69084$) considered energy provision, and more than half (64.5% $M=1.4933$, $SD=.72693$) looked at how easily the food can digest as a motive for choice of food. The scores for the physiological factor show that it is the second most crucial factor after the sensory appeal to influence food choice given the proportion of respondents and the mean scores.

The physiological need (hunger and satiety) plays a significant role in food choice. In most cases, people eat because they are hungry. Several studies point to this fact (Skrynka & Vincent, 2019; Otterbring, 2019b). It is also however true that sometimes people eat when they are not hungry. For example, Feig, Piers, Kral, and Lowe (2018) found that people with low self-control ate even when they were not hungry. That notwithstanding, hungry people make a quick decision regarding what to eat when they are hungry. Food provides the fuel or energy needed to work. Therefore, physiological reasons (hunger, energy, and easily digestible food) as the second most key factor looking at the proportion of respondents is not out of place.

One of the personal factors that influences food choice is the consumer's knowledge level. The results showed that more than half of the respondents (57.3%, $M=1.6388$, $SD=.80982$) were not sure how their awareness of the available options affected their food selection. The same trend was observed for the sub-variables of knowledge level: knowledge of health consequences (57.6%, $M=1.6301$, $SD=.80415$) and knowledge of food nutrients (57.0%, $M=1.6474$, $SD=.81548$). The mean scores indicate the respondents' lack of decision on how these factors influenced their food choice motives. As more people become aware of the importance of healthy eating (Hwang & Cranage, 2015), they also become more interested in the nutritional value and the potential health risks of different food (dishes) (Maidah, 2016). This influences their food choices and motivates them to seek information that can help them make better decisions. For example, some studies (Christoph, Larson, Laska, & Neumark-Sztainer, 2018; Kim, Ellison, McFadden, & Prescott, 2021) have shown that consumers with higher nutrition knowledge tend to read food labels and use them as a guide for choosing healthy food (Clarke, Abel & Best, 2023).

Socio-Cultural Related Factors Influencing Restaurant Consumers' Food Choice

One factor (*social interaction enabler*) under the socio-cultural construct came up among the structure of factors explaining restaurant customers' food choices in Takoradi. Overall, about half (51.1%, $M=1.7540$, $SD=.84574$) of the respondents were ambivalent about the role this factor plays when making food choices with the mean score showing that about half of the consumers were indifferent to its role in their food choice. A breakdown of the

variables under this factor shows the same pattern; meals that made the conversation more enjoyable and comfortable (54.3%, $M=1.6917$, $SD=.82727$) of the respondents (Table 15), the need to have contact with other people driving what chose when eating out (51.1%, $M=1.7380$, $SD=.83176$), Spending time with others (47.8%, $M=1.8324$, $SD=.87259$). The mean scores reveal the respondents' lack of decision on how these factors influenced their food choice motives.

Table 15: Socio-Cultural Related Factors Influencing Restaurant Consumers' Food Choice

Statements	N	% in agreement	Mean	SD	Alpha
<i>Social Interaction Enabler</i>					
It makes a social gathering more enjoyable	519	54.3	1.692	.828	
It facilitates contact with others (business meals, and events)	519	51.1	1.738	.832	
It helps me spend time with other people	519	47.8	1.832	.873	
<i>Overall</i>		<i>51.1</i>	<i>1.754</i>	<i>.844</i>	<i>.859</i>

Source: Fieldwork, 2022. Scale: 1.0-1.4.9- Agree, 1.5-2.49-Neutral, 2.50-3.0-

Disagree

Routinized performance of food activities (cooking and eating) is done together with others, in front of others, and related to others (Halkier, 2020, pg. 403). The routine here is seen as a practical-sense-based way of carrying something out in everyday life (Halkier, 2020). Therefore, in a group setting, people make more socially desirable choices with an impression management motive (Varanian, 2015). Making healthy food choices is seen as a socially desirable behaviour and people who make such choices are viewed highly (Mooijman et al., 2018). Consequently, when people are having a meeting with business associates or potential business partners the expectation is they will

make choices that will impress them. These are outside their everyday group membership. Halkier (2020) found that when people feel that they will be judged by an outgroup, they make healthy food choices.

Impression management is therefore an important feature in food choices. Otterbring (2017) found two contrasting pieces of evidence to support the role played by the opposite sex in food choices. He noted that when people dine out with the same sex, they tend to choose regular meals. All that changes when they are dining with the opposite sex. They tend to spend more on expensive items that they would not have picked on a regular outing. Similarly, a study by Baker, Strickland, and Fox (2018) on how the desirability of the opposite sex affected food choices found that people made food choices to impress (appeal) to the opposite sex. These studies are important in explaining why social interaction enhancers although with a lower explanatory power should emerge as a factor in the food choice of restaurant consumers in Takoradi.

Food Choice Factors in Restaurants Across Socio-Demographic Characteristics

The differences in the seven food choice factors across some socio-demographic variables were examined using independent samples t-test and ANOVA with Tukey's HSD used for the post hoc analysis. The statistically significant differences are discussed subsequently. In terms of sex differences, the t-test reveals a difference in emotions and mood enhancers ($t=2.8$, $p=.00$). The mean scores for male respondents ($M=1.82$) versus female respondents ($M=1.64$) show that males were more inclined to disagreeing than neutral

females. Acceptably, men are known to hide their emotions and would therefore not make food choices based on that.

The t-test conducted on the marital status revealed significant differences between single and married respondents in the following factors (Table 16): food naturalness ($t = -2.286$, $p=.02$) and mood/emotion enhancement ($t=-2.257$, $p=.03$). The mean score in both cases revealed that regarding the naturalness of the food (1.69 versus 1.83) and mood/emotion enhancement (1.70 versus 1.85) both groups were more ambivalent with married respondents tilting more to high end on the scale.

They were different on the *quality of food* ($t=2.5$, $p=.01$) with the mean scores for singles ($M=1.3$) being a bit higher than married ($M=1.1$). Thus, singles were less concerned about the food quality than married respondents. Single individuals tend to make individualist decisions, which could account for the less interest in the quality of the food than married couples who must consider other actors in the decision-making. They were also different on *no additives* ($t=-2.3$, $p=.02$), *no artificial ingredients* ($t=-2.5$, $p=.01$), *feeling relaxed* ($t=-1.9$, $p=.05$), *feeling less lonely* ($t=-2.5$, $p=.01$) and *satisfying hunger* ($t=1.9$, $p=.05$). One significant factor worth throwing more light on is *feeling less lonely*. Here the mean for singles ($M= 1.8$) compared to that of married ($M= 2.0$) is low. This means the item could play a role in the food choice decision of single respondents than their married counterparts. Thus, single respondents were more unsure about the role of that item in their food choice decision.

Table 16: Differences in Food Choice Factors in Restaurants across Consumer Socio-Demographic Characteristics

Socio-demographic	Sensory appeal	Social interaction enabler	Variety Seeking	Food Naturalness	Mood/emotion enhancement	Physiological need	Knowledgeable customer
Sex							
Male	1.29	1.78	1.74	1.77	1.82	1.44	1.65
Female	1.29	1.71	1.71	1.69	1.64	1.38	1.61
	$t=.019$ $p=.985$	$t=.960$ $p=.338$	$t=.421$ $p=.674$	$t=1.183$ $p=.237$	$t=2.853$ $p=.005^{**}$	$t=.066$ $p=.287$	$t=.644$ $p=.520$
Marital status							
Single	1.30	1.76	1.73	1.69	1.70	1.38	1.68
Married	1.27	1.74	1.73	1.83	1.85	1.49	1.56
	$t=.755$ $p=.450$	$t=.388$ $p=.698$	$t=-.140$ $p=.889$	$t=-2.286$ $p=.023^*$	$t=-2.257$ $p=.025^*$	$t=-1.880$ $p=.061$	$t=1.753$ $p=.080$
Nationality							
Ghanaian	1.31	1.77	1.77	1.76	1.76	1.42	1.63
Non-Ghanaian	1.18	1.68	1.40	1.48	1.70	1.44	1.67
	$t=2.252$ $p=.025^*$	$t=.993$ $p=.323$	$t=.2.977$ $p=.003^{**}$	$t=2.069$ $p=.041^*$	$t=.622$ $p=.535$	$t=-.294$ $p=.789$	$t=-.394$ $p=.685$
Age							
18-30	1.30	1.70	1.72	1.70	1.48*	1.40	1.64
31-40	1.27	1.78	1.70	1.76	1.77	1.39	1.58
41-50	1.29	1.90	1.88	1.88	1.93*	1.56	1.80
51+	1.29	1.87	1.62	1.74	2.21*	1.38	1.50
	$F=.182$ $p=.908$	$F=1.433$ $p=.232$	$F=1.180$ $p=.317$	$F=1.200$ $p=.309$	$F=4.247$ $p=.006^{**}$	$F=1.432$ $p=.233$	$F=1.500$ $p=.2114$
Employment status							
Employed	1.29	1.82	1.80*	1.78	1.82*	1.44	1.64
Unemployed	1.34	1.61	1.63	1.68	1.66	1.38	1.70

Table 16 Continued

Students	1.24 <i>F</i> =1.062 <i>p</i> = .347	1.63 <i>F</i> =3.917 <i>p</i> = .021*	1.42* <i>F</i> =6.694 <i>p</i> =.001**	1.62 <i>F</i> =2.614 <i>p</i> = .074	1.46* <i>F</i> =6.011 <i>p</i> = .003**	1.39 <i>F</i> =.383 <i>p</i> = .682	1.59 <i>F</i> =.476 <i>p</i> = .622
Education level							
Basic	1.52	1.51	1.78	1.80	1.62	1.60	1.93
Secondary	1.38	1.72	1.72	1.70	1.64	1.50	1.71
Tertiary	1.26 <i>F</i> = 4.540 <i>p</i> = .011*	1.77 <i>F</i> = 1.028 <i>p</i> = .358	1.73 <i>F</i> = .037 <i>p</i> = .964	1.74 <i>F</i> = .198 <i>p</i> = .821	1.78 <i>F</i> = 2.017 <i>p</i> = .134	1.39 <i>F</i> = 2.000 <i>p</i> = .136	1.61 <i>F</i> = 2.030 <i>p</i> = .132

Source: Fieldwork, 2021; *p*= .05; .01; *p*< .01 (.00) *Post hoc

The one-way ANOVA test was used to test the difference in the means of age groups. The age groups were 18-30, 31-40, 41-50, and ≥ 51 . The test showed a significant difference at $p < .05$ in how *feeling relaxed* influenced the food choice of the different age groups [$F(3,515)=3.9$, $p=.01$]. The post hoc analysis (Tukey's HSD) showed that the age group ≥ 51 was different from 18-30 ($p=.02$, 95% CI=.0625, 1.1963) and 31-40 ($p=.02$, 95% CI=.0832, 1.2393). This suggests that older people tend to use food to relax more than younger people. The test also showed a significant difference at $p < .05$ in how feeling less lonely influenced the food choice of the different age groups [$F(3,515)=6.2$, $p=.00$]. The post hoc analysis (Tukey's HSD) showed that the age group 18-30 was different from 41-50 ($p=.006$, 95% CI=-.6647, -.0808) and ≥ 51 ($p=.02$, 95% CI=1.2774, -.0786). This implies that younger people tend to use food to cope with loneliness more than older people.

One of the factors that may influence food choice is education level. This study examined how education level affects the importance of different attributes of food, such as good taste, quality, loneliness, and energy. The participants were categorized into three groups based on their education level: basic, secondary, and tertiary. A one-way ANOVA test was used to compare the mean scores of each attribute across the groups. The results showed that there was a significant difference among the groups for four attributes: good taste [$F(3,515)=8.7$, $p < .05$], quality food [$F(3,515)=7.5$, $p < .05$], feeling less lonely [$F(3,515)=4.1$, $p < .05$], and provides energy [$F(3,515)=3.5$, $p < .05$]. A post hoc analysis (Tukey's HSD) revealed that the tertiary group rated good taste and quality food higher than the basic and secondary groups, while the secondary group rated feeling less lonely and providing energy lower than the

basic and tertiary groups. These findings suggest that education level influences the role of food attributes in food choice, possibly because higher education increases awareness of nutrition and health.

The level of education one attains may influence their food choices in several ways. For instance, people with higher education tend to have better-paying jobs and more income, which enables them to make quality decisions based on knowledge and purchasing power. They may also have more stress associated with their work, which could affect their emotion and mood. This could lead them to use food as a coping mechanism or to avoid emotional eating. On the other hand, people with lower education may have less income and knowledge, which limits their food options. They may also have more physically demanding jobs, which require more energy. Therefore, they may prioritize foods that provide energy over other factors.

The study again used the t-test to compare the food choice factors of employed and unemployed respondents. It was found that a significant difference in good taste as a food choice motive ($t=-2.1$, $p=.04$). Employed respondents ($M=1.2$) had a lower mean score than unemployed respondents ($M=1.3$), meaning they agreed less that good taste influenced their food choice. Again, a significant difference was recorded in enjoying social gatherings as a food choice factor ($t=2.0$, $p=.04$). Employed respondents ($M=1.7$) were less neutral than unemployed respondents ($M=1.6$) about their role in their food choice. Other factors that showed significant differences between the two groups were spending time with others, interacting with others, satisfying curiosity, enjoying exotic foods, appealing food of others, having no additives, feeling relaxed, enjoying a fulfilling day, and feeling less lonely.

Chapter Summary

The chapter looks at the underlying factors accounting for food choices by restaurant customers in Takoradi. A total of sixty-seven variables (items) measuring thirteen factors under three broad constructs (food-related, person-related, and sociocultural-related) were subjected to EFA. By following procedure and meeting all the assumptions, at the point of stability, a seven-factor solution emerged comprising twenty-two items. The seven factors explained 73.8% of the total variance observed in the data. Two of the factors were under food-related construct, four were under person-related construct and one under socio-culture-related construct. Although sensory appeal under the food-related construct accounted for over 33% of the total variance, there were more factors under the person-related construct than any of the other constructs. The seven factors were indexed and used for further analysis. The analysis looked at the relationship between these factors and socio-demographic variables.

CHAPTER SEVEN

FOOD CHOICES OF RESTAURANT CONSUMERS

Introduction

This chapter explores the food choices of restaurant consumers in Takoradi. It examines the kinds of dishes that the customers order and how they vary by restaurant type and meal occasion. It also investigates the relationship between socio-demographic factors and the kinds of meals consumed. This chapter provides insights into the eating habits and preferences of people in Takoradi.

Types of Meals Consumed in Restaurants

The data on the meal preferences of the respondents was collected using an open-ended question. The answers were grouped into main dishes and accompaniments, as shown in Table 17. The main dishes consisted of protein sources, while the accompaniments were carbohydrate/starch sources that complement them. The analysis revealed that chicken was the most preferred main dish (33.4%), followed by fish (19.6%) and local stews (13.2%). The next most popular main dishes were local soups (12.6%) and beef (12.5%). The remaining main dishes were pizza/omelette/burger (4.0%), noodles/spaghetti/pasta (3.2%) and pork (1.4%), in descending order. Pizza and noodles were classified as main dishes (protein sources) because they are single-dish meals. The findings indicate that chicken is a favoured main dish among the respondents, with fish being the second choice.

Table 17: Main Dishes and Accompaniments Eaten in Restaurants (N=519)

Main dishes	Frequency	Percentage
Chicken	278	33.4
Fish	163	19.6
Local stews	110	13.2
Local soups	105	12.6
Beef	104	12.5
Pizza/burger	33	4.0
Noodles/spaghetti/pasta	27	3.2
Pork	12	1.4
Overall	832 ^a	100
Accompaniments		
Rice	285	41.5
Fries	105	15.3
Banku	103	15.0
Fufu	92	13.4
Kenkey	26	3.8
Fried Plantain	22	3.2
Ampesi	24	3.5
Eba	17	2.5
Omotuo	13	1.9
Overall	687 ^a	100

Source: Field Survey, Boison (2021)

Note: ^a Multiple choice

The data showed that the most common accompaniments for restaurant customers in Takoradi were rice (41.5%), fries (15.3%), *banku* (15.0%) and *fufu* (13.4%). The other options were *kenkey*, fried plantain, *ampesi*, *eba* and *omotuo* in descending order of preference. Rice was the dominant choice, as it was almost three times more popular than fries, the second most common accompaniment, and more popular than fries and *banku* together. The main dish

that accompanied rice was chicken, which made chicken and rice the favourite meal among restaurant consumers in Takoradi.

This finding reflects the global and national trends of consumption of these two products. Poultry meat is the most consumed meat in the world (OECD-FAO, 2019) and in Ghana, the per capita consumption rose from 1.7kg in 2000 to 6.1kg in 2017 (OECD-FAO, 2017), and according to Asante-Addo and Weibe (2020), it is a common part of Ghanaian diet. Rice is also a staple food for about half of the world's population (Fukagawa & Ziska, 2019; Priya, Nelson, Ravichandran & Antony, 2019). It is the second most-consumed cereal in Ghana after maize (Ragasa & Chapoto, 2017) and its consumption is expected to surpass maize consumption due to rapid urbanization (Lu, Addai, & Ng'ombe, 2021).

Relationship Between Meals Consumed and Restaurant Category

The main aim of this section was to examine the relationship between the types of meals consumed and the types of restaurants, meal occasions, and socio-demographic factors. The Pearson chi-square test was applied to assess the significance of the relationship. The Cramer's V test was also performed to measure the strength of the relationship. In the case of restaurant categories and main dish preference, the Fisher-Freeman-Halton Exact Test was applied. This was to overcome the minimum cell requirement assumptions for the chi-square test. The main dishes that received more than 10 percent of the preference scores were reported. Chicken was the most popular main dish in Restaurant Grade 3 (38.69%), followed by Restaurant Grade 1 (23.0%) and 3-Star Hotel Restaurant (21.9%).

To test the significance of this difference, the Fisher-Freeman-Halton Exact Test was applied. The test result $p=.00$ indicates a significant relationship between chicken preference and restaurant type. The Cramer's V test was used to measure the strength of this relationship. The test result $V (.263) = .00$ suggests a significant but weak association between chicken consumption and restaurant categories. On the other hand, fish was the most popular main dish in 3-Star Hotel restaurants (37.2%), compared to Restaurant Grade 3 (26.9%) and 1-Star Hotel restaurants (14.7%). The Fisher-Freeman-Halton Exact Test reveals a significant relationship between fish preference and restaurant type, $p=.00$. The Cramer's V test was performed to assess the strength of this relationship. The test result $V (.234) = .00$ shows a significant but weak relationship between fish consumption and restaurant categories.

As shown in Table 18, *local stew* was the most popular dish (47.6%) among Restaurant Grade 3 customers, while only 30.5 percent of 3-Star Hotel customers chose it. The other types of restaurants did not have significant scores for this analysis. A Fisher-Freeman-Halton Exact Test confirmed a statistically significant relationship between *local stew* preference and restaurant type, $p=.00$. To measure the strength of this relationship, a Cramer's V test was performed. The result $V (.187) = .00$ indicated a significant but weak association between *local stew* consumption and restaurant categories.

Table 18: Relationship between Meals Consumed and Restaurant Category

Restaurant Type	Grade 1	Grade 2	Grade 3	4-star	3-star	2-star	1-star	X ² (p-value)
	Rest.	Rest.	Rest.	Hotel Rest	Hotel Rest.	Hotel Rest.	Hotel Rest.	
Meals consumed in Rest.	Yes N(%)	Yes N(%)	Yes N(%)	Yes N(%)	Yes N(%)	Yes N(%)	Yes N(%)	
Chicken	64(23.0)	14(5.0)	108(38.8)	3(1.1)	61(21.9)	12(4.3)	16(5.8)	36.02(0.00)*
Fish	15(9.6)	9(5.8)	42(26.9)	5(3.2)	58(37.2)	4(2.6)	23(14.7)	28.38(0.00)*
Local stews	8(7.6)	3(2.9)	50(47.6)	2(1.9)	32(30.5)	1(1.0)	9(8.6)	17.21(0.00)*
Local soups	20(18.2)	6(5.5)	24(21.8)	4(3.6)	45(40.9)	2(1.8)	9(8.2)	25.43(0.00)*
Beef	20(19.2)	10(9.6)	30(28.8)	4(3.8)	32(30.8)	2(1.9)	6(5.8)	9.96(0.12)
Pizza/burger	2(16.7)	1(8.3)	2(16.7)	0(0.0)	3(25.0)	1(8.3)	4(25.0)	13.63(0.02)*
Noodles/spaghetti/pasta	10(40.0)	4(16.0)	2(8.0)	1(4.0)	8(32.0)	0(0.0)	0(0.0)	19.24(0.00)*
Pork	8(24.2)	0(0.0)	4(12.1)	1(3.0)	11(33.3)	1(3.0)	8(24.2)	5.46(0.36)

Source: Field Survey, Boison (2021)

The results again show that *local soup* was more preferred (40.9%) in 3-Star Hotel restaurants than in Restaurant Grade 3 (21.8%) and Restaurant Grade 1 (18.2%). The Fisher-Freeman-Halton Exact Test indicates a statistically significant association between *local soup* preference and restaurant type, $p = .00$, with Cramer's V test revealing a weak but statistically significant association between local soup preference and restaurant category, $V (.221) = .00$.

The data in Table 18 reveals that beef was the most preferred dish (30.8%) among customers of 3-Star Hotel restaurants, followed by 28.8% of Restaurant Grade 3 customers and 19.2% of Restaurant Grade 1 customers. The other restaurant types had negligible scores for this analysis. A Fisher-Freeman-Halton Exact Test confirmed a statistically significant relationship between beef preference and restaurant type, $p = .12$. On the other hand, the results indicate that pizza/omelette/burger was equally more popular (25.0%) in 3-Star Hotel and 1-Star Hotel restaurants than in Restaurant Grade 3 (16.7%) and Restaurant Grade 1 (16.7%) restaurants. The Fisher-Freeman-Halton Exact Test showed a statistically significant association between local soup preference and restaurant type, $p = .02$, with Cramer's V test demonstrating a weak but statistically significant association between local soup preference and restaurant category, $V (.167) = .02$.

The results again show that Restaurant Grade 1 had the highest preference (40.0%) for noodles/spaghetti/pasta dishes, followed by 3-Star Hotel (32.0%) and Restaurant Grade 2 (16.0%). There was a significant relationship between restaurant types and noodles/spaghetti/pasta preference, $p = .00$, as shown by the Fisher-Freeman-Halton Exact Test. The Cramer's V test also

indicated a weak but statistically significant relationship between restaurant category and local soup preference, $V (.198) = .00$. For pork dishes, the most preferred restaurant type was 3-Star Hotel (33.3%), followed by Restaurant Grade 1 and 1-Star Hotel (both 24.2%) and Restaurant Grade 3 (12.1%). However, there was no significant relationship between restaurant types and pork preference, $p = .36$, according to the Fisher-Freeman-Halton Exact Test.

Relationship Between Meals Consumed and Meal Occasion

This study explored how different meal occasions influence the choice of food and beverages among consumers. Five meal occasions were identified: quick meal, business meal, date, family/friends, and special occasions. The study also examined which types of food and beverages were consumed for each meal occasion, based on the frequency and preference of the respondents. The data were analysed using Pearson chi-square tests and Cramer's V tests to determine the association and strength of the relationship between the variables.

The survey data reveals that chicken was the most popular protein (main dish) among respondents on all for family and friends' gatherings (57.6%) compared to special occasions (38.55), dates (28.1%), quick meals (23.7%) and business meals (19.4%). The Pearson chi-square Test results show that there is no significant association between chicken preference and meal occasions. This means that chicken is consumed regardless of the occasion. Fish preference showed a similar pattern. The data shows that fish is the second most popular protein for family and friends' gatherings. (49.4%). However, it was the most preferred for special occasions (39.1%), dates (32.1%), business meetings (26.9%) and quick meals (26.3%). The data analysis did not find any significant

relationship between fish preference and meal occasions. Therefore, it is not possible to claim that fish was chosen for a particular occasion.

On the other hand, the data showed that *local soup* was the most popular main dish among the respondents for all occasions (Table 19). It was especially preferred (50.5%) for family and friends' gatherings, followed by special occasions (40.0%) and quick meals (34.3%). The other occasions were business meals (29.5%) and dates (19.0%). The Pearson chi-square test indicated a significant relationship between local soup preference and quick meals $\chi^2 (1, 518) = 3.99, p = .05$, business meals $\chi^2 (1, 518) = 4.39, p = .04$, and dates $\chi^2 (1, 518) = 5.88, p = .02$. This suggests that local soups were more likely to be chosen by the respondents for quick meals, business meals and dates. However, the Cramer's V test showed a weak but significant association between local soup preferences and quick meals, $V (.08) = .05$, business meals $V(.09) = .04$ and dates $V(.10) = .02$. Thus, although there is some evidence of an association between local soups and the meal occasions mentioned, the strength of the association is low.

Table 19: Relationship Between Types of Meals Consumed and Meal Occasion

Meal Occasion	Quick Meal	Business Meal	Date	Family/Friends	Special Occasion
	Yes	Yes	Yes	Yes	Yes
Meals consumed	N(%)	N(%)	N(%)	N(%)	N(%)
Chicken	66(23.7)	54(19.4)	78(28.1)	160(57.6)	107(38.5)
X ² (<i>p</i> -value)	2.47(0.12)	2.26(0.13)	0.02(0.88)	1.23(0.27)	2.41(0.12)
Fish	41(26.3)	42(26.9)	50(32.1)	77(49.4)	61(39.1)
X ² (<i>p</i> -value)	0.11(0.92)	3.12(0.07)	1.52(0.22)	3.18(0.07)	1.30(0.26)
Local soups	36(34.3)	31(29.5)	20(19.0)	53(50.5)	42(40.0)
X ² (<i>p</i> -value)	3.99(0.05)*	4.39(0.04)*	5.58(0.02)*	1.24(0.27)	1.19(0.28)
Local stews	38(34.3)	30(27.3)	30(27.3)	56(50.9)	41(37.3)
X ² (<i>p</i> -value)	4.53(0.03)*	2.29(0.13)	0.76(0.78)	1.08(0.29)	0.20(0.65)
Beef	24(23.1)	30(28.8)	25(24.0)	60(57.7)	37(35.6)
X ² (<i>p</i> -value)	0.82(0.37)	3.59(0.06)	1.18(0.28)	0.30(0.58)	0.01(0.98)
Pork	3(25.0)	4(33.3)	3(25.0)	7(58.3)	2(16.7)
X ² (<i>p</i> -value)	0.02(0.90)	0.93(0.34)	0.07(0.79)	0.05(0.83)	1.89(0.17)
Noodles/spaghetti/pasta	3(12.0)	4(16.0)	6(24.0)	19(76.0)	10(40.0)
X ² (<i>p</i> -value)	2.86(0.91)	0.54(0.46)	0.24(0.62)	4.55(0.03)*	0.24(0.63)
Pizza/Omelette/Burger	8(24.2)	5(15.2)	11(33.3)	15(45.5)	7(21.2)
X ² (<i>p</i> -value)	0.10(0.75)	0.92(0.34)	0.43(0.551)	1.41(0.24)	3.15(0.08)

Source: Fieldwork, 2021. **p* ≤ .05

The results show that local stews were the most popular dish (50.9%) for family/friends' gatherings, followed by special occasions (37.3%) and quick meals (34.3%). For business meals and dates, local stews had the same preference rate (27.3%). The chi-square test indicated a significant relationship between local stew preference and quick meals, $\chi^2 (1, 518) = 4.53, p = .03$ with a weak but significant association according to Cramer's V test, $V (.09) = .03$. The findings also reveal that beef was a preferred main dish for all occasions, especially for family and friends' gatherings (57.7%). The other occasions were special occasions (35.6%), business meals (28.8%), date meals (24.0%) and quick meals (23.1%).

There was no significant relationship between beef preference and meal occasions based on the Pearson chi-square test results. Therefore, beef preference was independent of the occasion. The same results applied to pork preference. The data showed that pork was preferred mostly (58.3%) for family and friend gatherings, followed by business meals (33.3%) and an equal preference for quick meals and date meals (25%). Special occasions had the lowest preference rate (16.7%). The Pearson chi-square test results did not show any significant difference between pork preference and meal occasion. Thus, pork preference was not related to any meal occasion. Any high preference rate on any occasion was random.

The next two preferred dishes were noodles and pizza. From the table, noodles/spaghetti/pasta was the most popular choice (76%) for family and friends' gatherings, while it was less preferred for special occasions (40%), date meals (24%), business meals (16%) and quick meals (12%). This dish is usually found in Chinese or Thai restaurants, which may offer a different and special

experience for diners. This may explain why it was more common for special occasions. The chi-square test confirms that there is a significant relationship between noodles/spaghetti/pasta preference and meal occasions, $\chi^2 (1, 518) = 4.55, p = .03$, meaning that the preference for noodles/spaghetti/pasta depends on the occasion. The respondents were deliberate in their choice of family and friends gatherings. The Cramer's V test shows a weak but significant association between noodles/spaghetti/pasta preference and quick meals, $V (.09) = .03$. Therefore, even though the chi-square test shows an association, it is not a strong one.

The results regarding pizza/omelette/burger varied depending on the meal occasion. The Pearson chi-square test showed that there was no statistically significant relationship between the choice of that main dish and the type of meal. Therefore, any proportional relationships are due to chance. The table indicates that the dish was most popular (45.5%) for family and friends' gatherings, followed by date meals (33.3%), quick meals (24.2%), special occasions (21.2%), and business meals (15.2%). The dish was least favoured for business meals, which could be explained by the assumption that business meals are formal events and partners would not want to have such a casual dish as a burger for an important meeting.

Relationship Between Meals Consumed and Socio-Demographic

Variables

The Pearson chi-square test was used to examine the relationship between the types of meals eaten and the socio-demographic characteristics of the respondents. The Cramer's V test was used to measure the strength of any

statistically significant relationships between the variables. The results show that both male and female respondents liked the eight meals. Though, there exists no significant relationship between males and females in terms of their choice of food, however, results indicate that the proportion of males (35.11%) who ate chicken was more than females (31.44%). Concerning the local soups, the proportion of males (13.36%) who preferred local soups was more than that of their female (11.71%) counterparts. On the contrary, 19.73% of females and 18.51% of males chose fish. This suggests that there was a difference in preferences between males and females, as the most liked main dish for males (local soups) was the least liked by females.

The Pearson chi-square test performed on the relationship between gender and meal consumption revealed no statistically significant relationship between meals preferred and gender. This is an indication that no meal type can be associated with a specific gender group. On marital status and in proportional terms, the results show that both single and married respondents like the main dishes on offer in the restaurants. A cursory look reveals that more singles (35.96%) than married persons (29.76%) preferred chicken. However, it was revealed that the proportion of married persons (19.0%) were more than singles (18.9%) in the choice of fish as their main meal (Table 20). This suggests that there was a difference in preferences between single and married, as the most liked main dish for singles (noodles/spaghetti/pasta) was the least liked by married respondents and inversely, the most preferred meal of married respondents (pork) was the least liked by single respondents.

Table 20: Relationship Between Meals Consumed in Restaurants by Socio-Demographics

Socio-demographics	Chicken	Fish	Local soups	Local stews	Beef	Pork	Noodles/ Spag/Pasta	Pizza/Burger
Sex (X^2 (p-value))	1.89(0.39)	0.74(0.69)	0.55(0.76)	2.41(0.30)	0.19(0.91)	0.32(0.85)	0.60(0.74)	1.11(0.57)
Male	35.11	18.51	13.36	12.02	12.98	1.34	3.05	3.63
Female	31.44	19.73	11.71	15.72	12.04	1.67	3.01	4.68
Marital status (X^2 (p-value))	2.68(0.10)	1.13(0.72)	1.43(0.23)	2.88(0.09)	0.02(0.90)	1.38(0.24)	1.19(0.28)	1.12(0.29)
Single	35.96	18.91	11.99	12.17	12.73	1.12	3.56	3.56
Married	29.76	19.03	14.19	15.57	12.46	2.08	2.08	4.84
Nationality (X^2 (p-value))	1.48(0.48)	7.92(0.2)	4.74(0.09)	6.09(0.05)*	9.54(0.01)	0.11(0.95)	4.23(0.12)	1.48(0.48)
Ghanaian	33.80	20.03	13.35	14.19	11.13	1.39	2.50	3.62
Non-Ghanaian	18.65	11.54	8.65	7.69	23.08	1.92	21.73	6.73
Employment status (X^2 (p-value))	3.17(0.08)	0.74(0.39)	2.81(0.09)	6.15(0.01)*	0.82(0.37)	1.41(0.23)	0.88(0.35)	0.01(0.93)
Employed	32.01	18.17	14.03	13.31	13.31	1.80	3.42	3.96
Unemployed	37.45	20.60	10.11	13.48	11.24	0.75	2.25	4.12
Age (X^2 (p-value))	4.50(0.04)*	0.65(0.89)	3.86(0.07)	1.56(0.67)	1.16(0.76)	1.22(0.75)	2.00(0.57)	4.30(0.23)
18-30	35.99	19.18	10.78	12.50	12.72	1.29	2.80	4.74
31-40	31.25	18.33	15.42	15.42	11.67	2.08	2.92	2.92
41-50	31.63	18.37	15.31	13.27	13.27	1.02	5.10	2.04
50 and above	22.73	22.73	13.64	9.09	18.18	0.00	0.00	13.64
Level of education (X^2 (p-value))	10.89(0.00)*	1.34(0.51)	5.99(0.04)*	3.30(0.19)	3.13(0.21)	1.71(0.43)	3.04(0.22)	3.22(0.20)
Basic	32.26	12.90	16.13	6.45	16.13	3.23	6.45	6.45
Secondary	46.48	17.61	8.45	10.56	10.56	2.11	2.11	2.11
Tertiary	31.08	19.54	13.54	14.31	12.92	1.23	3.08	4.31

Table 20: Continued

Religion (X^2 (p -value))	1.75(0.42)	10.13(0.01)*	2.29(0.32)	6.99(0.03)*	4.93(0.08)	0.28(1.00)	5.63(0.05)*	4.45(0.09)
Christian	33.28	20.24	13.34	14.52	11.29	1.61	2.35	3.37
Moslem	29.09	18.18	10.91	9.09	18.18	0.00	5.46	9.09
Others	40.70	9.30	9.30	6.98	19.77	1.16	6.98	5.81
Ethnicity (X^2 (p -value))	4.21(0.38)	0.76(0.95)	2.20(0.71)	8.37(0.08)	7.70(0.10)	1.71(0.73)	2.40(0.61)	4.87(0.26)
Akan	34.58	19.08	12.10	13.29	11.93	1.70	2.90	4.43
Ga-Adangbe	40.48	19.05	14.29	7.14	16.67	0.00	0.00	2.38
Ewe	28.26	19.57	14.13	20.65	11.96	0.00	4.35	1.09
Mole-Dagbani	33.33	17.78	17.78	8.89	6.67	2.22	4.44	8.89
Others	29.82	17.54	12.28	10.53	22.81	1.75	3.51	1.75

Source: Fieldwork, 2021. * $p \leq .05$

Just as the results found in the relationship of gender with meal preferences, the Pearson chi-square test performed on the relationship between marital status and meal consumption did not reveal any statistically significant relationship between the two. This is an indication that no meal can be related with a specific marital status. Although some differences were observed in proportional terms, a conclusion cannot be drawn on any meal preference.

The result shows how nationality affects the choice of main dishes. The data suggest that Ghanaians and non-Ghanaians had different preferences for the eight main dishes. The most popular dishes among Ghanaians were chicken (33.80%), fish (20.03%) and local stews (92.7%). On the other hand, non-Ghanaians prefer noodles/spaghetti/pasta (21.71%), beef (23.01%) and chicken (18.65%). This implies that Ghanaians are more likely to enjoy their cuisine than non-Ghanaians. The Pearson chi-square test confirms that there is a significant relationship between nationality and local stew preference, $\chi^2 (1, 518) = 5.31, p = 0.02$. The Cramer's V test, $V (.10) = .02$ indicates that this relationship is weak but significant. Therefore, nationality can influence the consumption of local stews as shown by the proportions.

The next variable that was examined in relation to the main dishes consumed was the employment status of the respondents. The results showed that the employed respondents had a higher preference for the main dishes than the unemployed respondents in percentage terms. Specifically, more employed respondents (83.3%) chose pork as their main dish, followed by local stews (77.3%). The least preferred main dish among the employed respondents was chicken (64.0%).

On the other hand, the unemployed respondents preferred chicken (36.0%) more than any other main dish, followed by fish (35.0%) and pork (16.7%). This suggests that the most preferred main dish for the employed respondents (pork) was the least preferred for the unemployed respondents, and vice versa for chicken. A possible explanation for this pattern is that chicken is a common ingredient in most Ghanaian meals and those who can afford it may opt for different proteins when they eat out. In fact, pork consumption is increasing in Ghana and many people consider it a delicacy. Therefore, it may be a matter of affordability. The test revealed a significant association between employment status and local stew consumption, $\chi^2(2, 517) = 6.15, p = .01$. This indicates that local stew preference is somehow related to one's employment status. However, the strength of this association was weak, as indicated by Cramer's V, $V(.11) = .01$.

This section analysed the preferences for different main dishes among four age groups: 18-30, 31-40, 41-50, and 51 and above. The results indicated that pizza/omelette/burger was the most popular main dish for the youngest age group (66.7%), followed by chicken (60.1%), while local soups were the least favoured (47.6%). For the second age group, pork was the top choice (41.7%), followed by local soups (35.2%), while pizza/omelette/burger was the lowest (21.2%). The third age group preferred noodles/spaghetti/pasta the most (20.0%), followed by local soups (14.3%), while pizza/omelette/burger was again the least liked (6.1%). The fourth age group had too few responses to report on any of the preferences. The study also found that there was no statistically significant association between age group categories and main dish

preferences, meaning that age did not influence the consumption of any of the main dishes.

The study also examined how the respondents' level of education influenced their main dish preferences. The findings showed results for those who had completed secondary or tertiary education, as the number of respondents with basic education was too low to be analysed. The results indicated that pork was the most preferred main dish (25.0%) for secondary education respondents, followed by chicken (23.7%), while pizza/omelette/burger was the least popular (9.1%). For tertiary education respondents, pizza/omelette/burger was the most favoured (84.8%), followed by local stews (84.5%), while pork was the least liked (66.7%).

The relationship between educational level and main dish preference was not consistent across different dishes. Again, a similar pattern was observed for the most favoured main dish for one group being the least favoured for another. For example, pork which is the most preferred for those with secondary education was the least for those with tertiary education. Also, pizza/omelette/burger which was the most favoured by those with tertiary education is least preferred by those with secondary education. The chi-square test revealed that a statistically significant association exist between educational level and chicken preference, $\chi^2 (2, 517) = 10.89, p=.00$ and between educational level and local soup preference, $\chi^2 (2, 517) = 5.99, p=.05$. Thus, one's educational level could be linked to chicken preference and local soup preference. The Cramer's V test to determine the strength of the association revealed a weak but statistically significant association between education level

and chicken preference, $V (.15) = .00$ and between educational level and local soups preference, $V (.12) = .05$.

The final analysis in Table 20 is the relationship between respondents' religion and the main dishes preferred. It shows how respondents' religion relates to their main dish preferences. For Christian respondents, pork was the most popular main dish (91.7%), followed by local stews (90.0%). Noodles/spaghetti/pasta was the least preferred option (64%). For Moslem respondents, pizza/omelette/burger was the most preferred main dish (15.2%), followed by noodles/spaghetti/pasta (12.0%). Pork was not preferred at all (0.0%), as it is forbidden by their religion. For respondents of other faiths, noodles/spaghetti/pasta was the most preferred main dish (24.0%), followed by beef (16.3%). Fish was the least preferred option (5.1%). The test indicated that there was a significant relationship between religion and fish preference, $\chi^2 (2, 517) = 9.34, p = .01$, and between religion and local stews preference, $\chi^2 (2, 517) = 6.89, p = .03$. The Cramer's V test showed that the strength of these associations was weak, $V (.14) = .01$ for fish preference and $V (.12) = .03$ for local stews preference. These findings suggest that religion influences some aspects of main dish preferences among respondents.

Chapter Summary

This chapter analysed the choices of respondents regarding different main dishes (proteins) and accompaniments in various kinds of restaurants and occasions. It revealed that chicken, fish, local stews, and local soups were the most preferred main dishes, while rice, fries, *banku*, and *fufu* were the most favoured accompaniments. The chapter also investigated how these choices are

shaped by restaurant category, meal occasion, and customers' sociodemographic characteristics. Some of the main findings were that chicken was more prevalent in Grade 3 Restaurants, fish was more popular in 3-Star Hotel restaurants, chicken, fish, and local soups were mostly eaten during family/friends' gatherings, and males liked local soups while females liked local stews.

CHAPTER EIGHT

RELATIONSHIP BETWEEN FOOD CHOICE FACTORS, RESTAURANT CHOICE FACTORS, AND TYPES OF FOOD

Introduction

This chapter aims to examine how the factors influencing food choice interact with the factors influencing restaurant choice and the types of food selected by respondents. The factors influencing food choice are classified into three categories: person-related factors, food-related factors, and socio-cultural-related factors. The test tool used for these analyses is binary logistic regression. Binary logistic regression is a regression analysis technique where the dependent variable is a dummy variable.

Effects of Personal, Socio-cultural, and Food-Related Factors on Food Choice

As shown in Tables 21 and 22, customers' food choice was influenced by various factors related to personal preferences, food characteristics, and social contexts (such as sensory appeal, social interaction enabler, variety seeking, food naturalness, mood/emotion enhancement, physiological need, and knowledgeable customer). Specifically, Table 21 indicates that the most influential factor for choosing fish as the main dish was the nutritional knowledge of customers, with a Wald value of 11.06. Moreover, customers who opt for fish were about 0.76 times more likely to be influenced by their nutrition knowledgeable than respondents who did not eat fish. This suggests that customers who are aware of the health benefits of fish tend to prefer it over other main dishes such as beef, chicken, and pork. The study also found that social

interaction enablers played a significant role in influencing restaurant customers to choose fish dishes. The results show that social interaction enablers had a large effect (Wald = 3.82) on predicting customers' fish consumption behaviour. Social interaction enablers increased the odds (odds = 1.11) of customers who choose fish over customers who did not.

The choice of local stew as the main dish by customers was influenced by some person-related factors, the food, and the socio-cultural context. One of these factors was social interaction enablers, which had a significant effect on consumers' preference for local stews (Wald = 4.20). This means that consumers who chose local stews were about 1.13 times more likely to be influenced by social interaction than those who did not. Another factor was customers' knowledge, which also had a significant impact on their consumption of local stews as shown by the Wald value (9.33). The odds value indicates that customers with more knowledge were 0.75 times more likely to opt for local stews than those with less knowledge. Another factor that had a significant effect (Wald = 4.47) on the preference for pizza or burger was mood/emotion enhancement. This means that customers who wanted to improve their mood or emotion were about 0.94 times more likely to choose pizza or burger over customers who did not, as shown in Table 22. Finally, physiological needs also played a significant role in the selection of port, with a Wald statistic of 3.94.

Table 21: Binary Logistics Coefficients of Food Choice Factors and Customers' Main Dishes

Model	Chicken		Fish		Soups		Stews	
	Beta (Odd)	Wald	Beta (Odd)	Wald	Beta (Odd)	Wald	Beta (Odd)	Wald
Sensory appeal	-0.006(0.994)	0.021	0.039(1.040)	0.743	-0.025(0.975)	0.208	0.025(1.025)	0.249
Social interaction enabler	-0.030(0.970)	0.396	0.103(1.109)	3.823*	0.074(1.076)	1.561	0.118(1.125)	4.098*
Variety Seeking	0.051(1.053)	1.043	-0.038(0.963)	0.450	-0.057(0.944)	0.811	0.027(1.027)	0.183
Food Naturalness	0.031(1.031)	0.363	-0.059(0.942)	1.085	-0.022(0.978)	0.125	0.039(1.040)	0.406
Mood/emotion enhancement	-0.036(0.965)	0.443	0.036(1.037)	0.373	0.010(1.010)	0.023	0.040(1.041)	0.370
Physiological need	-0.010(0.990)	0.028	0.093(1.098)	1.887	-0.041(0.960)	0.261	-0.007(.993)	0.009
Knowledgeable customer	0.083(1.087)	1.363	-0.278(0.758)	11.059*	-0.063(0.938)	0.498	-0.287(.750)	9.326*
Cox & Snell R ²	0.007		0.033		0.008		0.028	
Nagelkerke R ²	0.010		0.047		0.013		0.043	

Odd ratio in parenthesis; p-value is significant at, *p<0.05

Source: Field Survey, Boison (2021)

Table 22: Binary Logistics Coefficients of Food Choice Factors and Customers' Main Dishes Cont'd

Model	Beef		Pork		Noodles/Spaghetti/Pasta		Pizza/Burger	
	Beta (Odd)	Wald	Beta (Odd)	Wald	Beta (Odd)	Wald	Beta (Odd)	Wald
Sensory appeal	-0.039(0.961)	0.489	-0.002(0.998)	0.000	0.025(1.026)	0.075	-0.003(0.997)	0.001
Social interaction enabler	0.056(1.058)	0.908	-0.083(0.920)	0.239	-0.103(0.902)	0.817	-0.056(0.945)	0.333
Variety Seeking	-0.021(0.980)	0.111	0.215(1.240)	1.639	0.026(1.027)	0.057	0.057(1.059)	0.345
Food Naturalness	-0.111(0.895)	2.896	0.095(1.100)	0.298	-0.058(0.944)	0.226	-0.078(0.925)	0.550
Mood/emotion enhancement	0.082(1.085)	1.529	-0.240(0.787)	1.676	0.010(1.010)	0.007	0.225(1.253)	4.470*
Physiological need	-0.045(0.956)	0.328	0.354(1.425)	3.939*	0.047(1.048)	0.109	-0.027(0.974)	0.046
Knowledgeable customer	0.078(1.081)	0.813	0.034(1.035)	0.019	0.237(1.268)	2.306	-0.061(0.941)	0.191
Cox & Snell R ²	0.014		0.018		0.007		0.011	
Nagelkerke R ²	0.022		0.090		0.023		0.030	

Odd ratio in parenthesis; p-value is significant at, *p<0.05

Field Survey, Boison, (2021)

Effects of Restaurant-related Choice Factors on Food Choice

The effects of restaurant choice factors on restaurant food choices were examined using a binary logistic regression. The predictor variable was the restaurant choice factors, while the outcome variables were the customers' main dishes. The main dishes were recorded in a binary way, as "Yes" or "No", with "No" being zero (0) and "Yes" being one (1). The data presented in Tables 23 and 24 show that customers' food choice was influenced by several restaurant choice factors. These factors include the atmosphere, hygiene, staff attitude, food price, menu diversity, service quality, location and proximity, accessibility, food quality, word of mouth, personal experience, brand popularity and brand reputation. These factors have a significant impact on customers' food preferences.

Table 23 presents the results of the logistic regression analysis on restaurant choice factors and the type of dish selected. The results indicate that the ease of access has some effect on customers' choice of soup as a main dish in Takoradi restaurants. The Wald statistic of 3.14 indicates that ease of access was a significant predictor of soup consumption, with an odds ratio of 1.32. This means that customers who ate soup dishes were about 1.32 times more likely to be influenced by easy access to a restaurant than consumers who did not eat soup dishes. This finding suggests that the availability and convenience of restaurants that serve soup-based dishes influence customers' food preferences. Soup dishes are typically not fast foods in the Ghanaian context, so customers may need to have enough time and access to enjoy them.

Table 23: Binary Logistics Coefficients of Restaurants' Food Choice Factors and Customers' Main Dishes

Model	Chicken		Fish		Soups		Stews	
	Beta (Odd)	Wald	Beta (Odd)	Wald	Beta (Odd)	Wald	Beta (Odd)	Wald
Ambience	-0.368(0.692)	0.925	0.095(1.100)	0.053	0.417(1.517)	0.632	0.203(1.225)	0.190
Clean Environment	0.382(1.466)	0.464	-0.846(0.429)	1.999	-0.085(0.919)	0.014	-0.404(0.668)	0.367
Staff corporation	0.046(1.047)	0.010	0.164(1.179)	0.102	-0.904(0.405)	2.613	0.116(1.123)	0.038
Price of food sold	-0.010(0.990)	0.001	0.372(1.451)	0.908	0.016(1.016)	0.001	0.252(1.286)	0.348
Variety of menu items sold	0.170(1.185)	0.287	0.281(1.325)	0.595	0.177(1.193)	0.168	-0.554(0.575)	2.303
Excellent service	0.148(1.159)	0.089	-0.558(0.572)	1.097	-0.197(0.821)	0.107	-0.091(0.913)	0.022
Location and distance	-0.038(0.963)	0.017	0.103(1.108)	0.100	0.077(1.080)	0.039	0.474(1.607)	1.558
Ease of access	-0.146(0.864)	0.215	-0.440(0.644)	1.703	2.843(1.324)	3.137*	-0.478(0.620)	1.732
Prioritize quality food	-0.164(0.849)	0.128	0.631(1.880)	1.296	-0.062(0.940)	0.011	0.059(1.061)	0.010
Word of mouth	0.282(1.325)	0.984	-0.179(0.836)	0.326	0.095(1.100)	0.064	-0.444(0.641)	1.696
Personal experience	0.343(1.410)	1.327	0.017(1.018)	0.003	0.349(1.418)	0.747	0.612(1.845)	2.532
Brand popularity	-0.064(0.938)	0.059	0.388(1.474)	1.680	0.176(1.192)	0.267	0.286(1.331)	0.744
Brand reputation	-0.137(0.872)	0.224	-0.231(0.794)	0.520	-0.297(.743)	0.655	-0.205(0.815)	0.338
Cox & Snell R ²	0.009		0.018		0.020		0.020	
Nagelkerke R ²	0.012		0.026		0.031		0.030	

Odd ratio in parenthesis; p-value is significant at, *p<0.05

Furthermore, ease of access significantly influenced the selection of pork, with a statistically significant contribution indicated by a Wald value of 4.28. Customers who ate port were approximately 1.81 times more likely to be influenced ease of access than those who did not. Additionally, both brand popularity (Wald = 3.82) and brand reputation (Wald = 3.61) played significant roles in customers' decision-making when it came to pork selection. Specifically, brand popularity had a 1.26 times higher likelihood of driving customers to opt for pork over other factors, while brand reputation increased this likelihood by 1.35 times.

A plausible explanation for these influences is that pork is considered a delicacy in Ghana, often sourced from reputable restaurants or established sellers rather than random sources. Thus, when one combines ease of access with brand issues, it is easy to understand why these factors were predictors of pork selection. Moving on, location and distance emerged as significant factors in consumers' choice of noodles, spaghetti, or pasta, as evidenced by the Wald value of 6.71.

The impact of location and distance was pronounced, with customers being approximately 1.12 times more inclined to select noodles, spaghetti, or pasta based on these factors (refer to Table 24). The negative beta score (-1.420), however, indicates that a unit increase in distance will lead to 1.12 times decline in the selection of noodles/spaghetti/pasta meals. This is key because, from the earlier discussion on meals, it was observed that this type of meal was sold by ethnic, or specialty restaurants and people normally consume it on special occasions. Therefore, if the distance to get to these restaurants increases, the odds of people trying to go and eat there will decline.

Table 24: Binary Logistics Coefficients of Restaurants' Food Choice Factors and Customers' Main Dishes Cont'd

Model	Beef		Pork		Noodles/Spaghetti/Pasta		Pizza/Burger	
	Beta (Odd)	Wald	Beta (Odd)	Wald	Beta (Odd)	Wald	Beta (Odd)	Wald
Ambience	-0.480(0.619)	1.125	-0.622(0.537)	0.286	0.206(1.228)	0.035	1.546(4.691)	1.360
Clean Environment	-0.253(0.776)	0.123	15.793(722720.4)	0.000	15.431(50280.9)	0.000	-0.401(0.670)	0.083
Staff corporation	0.788(2.200)	1.411	17.152(281314.2)	0.000	17.275(318674.8)	0.000	0.758(2.135)	0.405
Price of food sold	-0.270(0.763)	0.430	-0.864(0.421)	0.886	-0.742(0.476)	1.258	-0.010(0.990)	0.000
Variety of menu items sold	-0.462(0.630)	1.479	0.329(1.390)	0.076	-0.416(0.660)	0.332	0.669(1.953)	0.717
Excellent service	0.459(1.583)	0.427	15.464(5197130.3)	0.000	16.688(176824.5)	0.000	-0.820(0.440)	0.789
Location and distance	0.513(1.671)	1.563	18.447(1020719.6)	0.000	-1.420(1.122)	6.705*	-0.126(0.882)	0.044
Ease of access	0.457(1.579)	1.207	-1.700(0.813)	4.282*	1.515(4.549)	2.840	-0.150(0.861)	0.046
Prioritise quality food	0.174(1.190)	0.083	15.250(419786.8)	0.000	18.269(858945.9)	0.000	-0.913(0.401)	1.164
Word of mouth	-0.530(0.589)	2.312	0.012(1.012)	0.000	-0.569(0.566)	0.825	0.766(2.152)	1.333
Personal experience	0.063(1.065)	0.028	-0.691(0.501)	0.535	0.312(1.367)	0.139	-0.629(0.533)	1.108
Brand popularity	0.362(1.436)	1.127	-1.350(1.259)	3.820*	-0.577(.562)	1.077	-0.842(0.431)	3.071
Brand reputation	-0.150(.861)	0.168	2.337(1.349)	3.614*	0.795(2.215)	1.310	1.239(3.452)	3.479
Cox & Snell R ²	0.019		0.034		0.037		0.024	
Nagelkerke R ²	0.030		0.173		0.117		0.064	

Source: Field Survey, Boison (2021). Odd ratio in parenthesis; p-value is significant at, *p<0.05.

Chapter Summary

This chapter delved into the effects of person/food/socio-cultural-related factors on the resultant food choices made by respondents. Furthermore, it investigated the interplay between factors influencing restaurant choices and their subsequent impact on the food selections of the participants. The findings of the study shed light on significant patterns. The analysis revealed that respondents' nutritional knowledge directly influenced their preference for fish dishes. Moreover, the facilitation of social interactions emerged as a crucial driver in the choice of fish-based meals. This dynamic was also mirrored in the selection of stew dishes, where social interaction played a pivotal role. Additionally, the study underscored the sway of consumer knowledge in the preference for local stews.

Revealingly, the enhancement of mood and emotion emerged as a key factor driving the selection of pizza and burger options. Moreover, the primal physiological need for easily digestible food items was identified as a compelling factor in the choice of pork dishes, highlighting the role of physiological considerations.

Transitioning to the influence of restaurant choice factors on food selection, the study unearthed that easy accessibility emerged as a robust predictor for the selection of soup dishes. This trend was further evident in the realm of pork dishes, where ease of access held considerable sway. In a similar vein, the prominence of brand reputation and brand popularity emerged as paramount determinants in the choice of pork-based meals. Lastly, the geographical factors of location and distance emerged as pivotal drivers steering the selection of noodles, spaghetti, and pasta dishes.

CHAPTER NINE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter summarizes the study. It begins with a summary of the research processes engaged in analysing the food choices of restaurant consumers in Takoradi, the major findings and the conclusions drawn. The chapter further presents recommendations for practice and further studies and contributions of the study to knowledge.

Summary of Research Process

The complexity of the human choice process especially food choice in a restaurant setting cannot be unravelled in a single study. Hence, several studies on food choice have mostly touched on aspects deemed appropriate to the researchers. This study is no different as the literature gaps identified point to several aspects of the food choice process in restaurant settings that have received little attention in the global literature and specifically in Ghana, the subject has not been amply analysed in the study area. The study, therefore, sought to:

1. analyse the factors influencing the choice of restaurants in Takoradi,
2. assess the factors influencing the food choice of restaurant consumers in Takoradi,
3. examine the food choices that people make when they eat out in Takoradi,
4. evaluate the relationships between food choice factors, restaurant choice factors and types of food consumed in Takoradi.

To achieve these objectives, a cross-sectional research design underpinned by the positivist paradigm of social science research was employed. A multi-stage probability sampling technique was employed to select respondents from Independent Restaurants and Hotel Restaurants in Takoradi to participate in the study. A questionnaire made up of four sections (Section I = information on restaurant choice factors; Section II = information on types of food consumed; Section III = information on food choice factors; Section IV = Socio-demographic information of respondents) was used to collect data from 588 restaurant consumers between 27th October 2021 and 29th November 2021. Four field assistants collected data from selected restaurants, analyzed using tools like Chi-square Test, ANOVA, EFA, and BLR, using IBM SPSS Statistics version 27.

The complexity of the subject for this study meant that several theories and models were needed. Thus, the rational choice theory, social cognitive theory, attitude social influences and self-efficacy model, health promotion model as well as food choice process model and framework of factors influencing food choice provided the conceptual guidance for this study.

Major Findings

The key findings of the study are presented under their respective objectives to provide structure and easy reference for the reader.

In relation to objective one, five main factors were found to have influenced restaurant consumers' choice of restaurants in Takoradi. These factors are clean environment, service excellence, food quality, staff cooperation and price. Further, the level of importance of these factors varied

based on the socio-demographic characteristics of the restaurant consumers, meal occasions and type of restaurant visited.

Regarding objective two, it emerged from the study that seven factors influenced the food choices of restaurant consumers in Takoradi. These factors cut across food-related, person-related, and socio-cultural dimensions. They include sensory appeal, social interaction enabler, variety, food safety/naturalness, mood enhancer, physiological need, and nutrition knowledge. These factors also varied by the socio-demographic characteristics of the restaurant consumers.

The third objective focused on the food choices of restaurant consumers when they eat out. The study noted that chicken was the most preferred main dish, followed by fish and local stews, local soups, and beef. The topmost five accompaniments were rice, fries, banku, fufu and kenkey. Nevertheless, the food choices varied by the meal occasions as well as the restaurant type.

Regarding objective four, it emerged from the study that there was a relationship between food choice factors, restaurant choice factors and type of food consumed. For instance, respondents' nutritional knowledge influenced their food preference. Also, facilitation of social interactions was a crucial driver in the choice of fish-based meals. In terms of the influence of restaurant choice factors on food selection, the study unearthed that easy accessibility emerged as a robust predictor for the selection of soup and pork dishes. Lastly, the geographical factors of location and distance emerged as pivotal drivers steering the selection of noodles, spaghetti, and pasta dishes.

Conclusions

Based on the objectives of the study and the corresponding findings presented, the following conclusion are drawn in this study.

Restaurant consumers in Takoradi respondents' choice of restaurants are influenced by a variety of factors. Regardless of the restaurant consumers' reasons for eating out and their socio-demographic characteristics, clean environment, service excellence, quality food, staff cooperation, and price remained paramount considerations in their choice of restaurants in the metropolis.

The study also concludes that food-related issues are the most important factor for restaurant consumers in deciding what to eat. Food-related issues such as tastefulness, food quality, and pleasant aroma held weight in this factor, suggesting the vital role of sensory experiences in shaping dining decisions. However, person-related and environment-related factors had varying levels of impact on food choice.

It can also be concluded that chicken is the most preferred main dish while rice is the most preferred accompaniment for restaurant consumers in Takoradi. These preferences highlight the significance of protein-rich and easily accessible options in the dining choices of respondents.

Finally, the study concludes that there is a relationship between food choice factors, restaurant choice factors and the type of food consumed by restaurant consumers in Takoradi. Restaurant consumers' nutritional knowledge significantly influenced their preference for food perceived to have higher health benefits. Consumers also gravitate towards fast-food options to satisfy

their emotional or indulgent desires. The convenience of access to the restaurant plays a pivotal role in food choice and restaurant choice decision-making.

Recommendations for Policy and Practice

The findings and conclusions drawn from this study provide useful insights for policy and practice.

In line with the mealtime preferences and dining occasions highlighted in the study restaurant operators and managers should tailor their menus to align with customers' expectations by offering appropriate dishes for breakfast, quick meals, business lunches, and special occasions.

Restaurant operators should strategically design menus that emphasize nutritional information for health-conscious customers. Additionally, dishes that promote positive emotions or cater to physiological needs as seen in this study can enhance menu appeal and should therefore be highlighted.

Restaurant operators should emphasize the sensory aspects (tastefulness, pleasant aroma) of their menus, and in addition, highlight the food quality and naturalness of their menus. Incorporating sensory elements such as flavours, aromas, and textures could create more engaging dining experiences. This will enhance customer engagement and satisfaction.

Restauranteurs should leverage the insights provided about dish preferences across different meal occasions to offer targeted menu options. Tailoring menus to cater to specific contexts like family gatherings, special occasions, business meetings, and quick meals can enhance customer satisfaction.

Restaurant managers should segment their customer base based on socio-demographic factors like employment status, age, and level of education. This segmentation can aid in creating targeted dining experiences that resonate with specific groups, ensuring that the menu, ambience, and services meet their preferences.

Restaurant managers and facility designers should provide spaces that are conducive to social interaction as this will promote social interaction opportunities for their customers and enhance the overall dining ambience.

The findings revealed the importance of respecting religious dietary restrictions. Restaurant operators and those interested in owning/operating one should offer diverse menu options that accommodate various religious preferences, ensuring inclusivity and expanding their customer base. A halal-themed restaurant will be a step in the right direction.

Acknowledging the gender-based variations in dish preferences, restaurants should adopt marketing strategies that resonate with specific gender groups. For instance, promoting dishes more popular among males or females could enhance engagement.

Understanding the influence of social interactions on dish choices suggests the potential for promoting social dining experiences. Restaurant managers should design campaigns that emphasize the communal aspect of dining to attract customers.

Marketing and communication efforts by restaurant operators should emphasize the factors that resonate most with consumers. For instance, highlighting the sensory appeal of dishes or the opportunity for social interactions can attract and engage customers.

Restaurateurs should also tailor their marketing strategies to cater to diverse customer segments. By recognizing the significance of factors like clean environments, service excellence, and food quality, establishments can emphasize these attributes in their promotional materials to attract and retain customers.

Restaurant managers should recognise the impact of accessibility and brand reputation on dish preferences. They should incorporate convenience-enhancing measures such as literally bringing their restaurants to the doorstep of their customers in addition to growing their restaurants into well-established brand names. These could attract more customers to specific dishes.

Dieticians and chefs should implement interventions that target specific factors, such as nutritional knowledge or mood enhancement. These factors could help in nudging individuals towards healthier or more desirable food choices.

Recommendations for Future Research

Given the classification of factors into food-related, person-related, and socio-cultural factors, future research could explore how cultural and social theories contribute to the understanding of dining choices. Investigating how these factors interact within different cultural contexts could provide deeper insights.

The variation in dish preferences based on meal occasions suggests that mealtime context plays a pivotal role in determining food choices. Future research could integrate temporal theories into the study of dining behaviour to uncover how time-related factors impact food selection.

Conducting longitudinal studies over an extended period can provide insights into the dynamic nature of dining behaviours and preferences. Examining how these factors evolve over time can yield valuable information about the trends and shifts in the local culinary landscape.

Further research into the impact of cultural and religious beliefs on dining choices could reveal deeper nuances in behaviour. Exploring how various cultural groups' dining habits are influenced by their values and practices can lead to more comprehensive insights. Also, exploring how cultural factors shape the interplay between nutritional knowledge, social interactions, and dish choices could yield insights into the universality and cultural specificity of these relationships.

Qualitative research methods, such as interviews and focus groups, can offer a richer understanding of the underlying motivations driving dining choices. Delving into personal experiences, social dynamics, and cultural influences can provide context to the quantitative findings.

In-depth research into how cultural norms, values, and practices influence dish preferences could yield a more nuanced understanding of why certain dishes are favoured within specific demographic segments.

Further exploration into the interrelation between meal occasions and dish preferences could lead to a deeper understanding of how individuals adapt their choices based on the context of dining.

Conducting longitudinal studies can reveal how nutritional knowledge, social interactions, and mood-driven choices evolve over time. This could shed light on shifting consumer preferences and behaviours.

Further research could delve into consumer segmentation based on factors like nutritional knowledge, emotional drivers, and brand influence, offering tailored insights for marketing strategies.

Contribution to Knowledge

The observed disparities in dining habits based on cultural and social factors underscore the importance of incorporating cultural and social theories into the study of dining behaviour. Religious beliefs, social norms, and cultural practices impact dining choices. This finding has enriched our understanding of consumer decision-making processes.

The identified factors—sensory appeal, social interaction enabler, variety seeker, chemical food safety/naturalness, mood enhancer, physiological need, and knowledgeable consumer—have enriched and refined existing consumer behaviour theories. Incorporating these factors into future studies can enhance the explanatory power of models in understanding dining choices.

The preferences for specific main dishes across different demographic groups, such as gender, marital status, income levels, and religious affiliations, underline the significance of cultural and social factors in shaping dietary choices. Theories that delve into the intersection of culture, identity, and food preferences should be engaged to better understand these dynamics.

Social interaction plays a pivotal role in dining experiences. This study has provided the basis that social interaction theories could provide a deeper understanding of how communal dining experiences influence food choices.

Credence has been given to the fact that mood/emotion plays a role in food choices. Incorporating emotion-driven theories into the study of fast-food

choices can offer insights into the role of mood enhancement and emotional satisfaction in driving preferences for specific fast-food items.

Psychological theories on food preference and sociological theories on identity and consumption can offer a comprehensive framework for explaining the relationships between demographic factors and dietary choices.

REFERENCES

- Acheampong, M., Yu, Q., Enomah, L. D., Anchang, J., & Eduful, M. (2018). Land use/cover change in Ghana's oil city: Assessing the impact of neoliberal economic policies and implications for sustainable development goal number one—A remote sensing and GIS approach. *Land Use Policy*, 73, 373-384.
- Adam, I., & Amuquandoh, F. E. (2013). Dimensions of hotel location in the Kumasi Metropolis, Ghana. *Tourism Management Perspectives*, 8, 1-8.
- Adam, I., Hiamey, S. E., & Afenyo, E. A. (2014). Students' food safety concerns and choice of eating place in Ghana. *Food Control*, 43, 135-141.
- Addo, E. C. (2017). *Menu design and food choice among customers of upscale restaurants in the Accra Metropolis* (Doctoral dissertation, University of Cape Coast).
- Adongo, C. A., Taale, F., & Adam, I. (2018). Tourists' values and empathic attitude toward sustainable development in tourism. *Ecological Economics*, 150, 251-263.
- Adzovie, D. E., Eshun, E., & Gborsong, P. A. (2019). Advertising on Food Choice: A Study of Bank Workers in Ghana. In *15th Annual International Bata Conference for Ph. D. Students and Young Researchers (DOKBAT)*. Tomas Bata Univ Zlin.
- Agyei-Amponsah, J., Owureku-Asare, M., & Katiyo, W. (2020). Consumer Food Preferences and Drivers amongst Ghanaians: Effect of the COVID-19 Pandemic. *Current Journal of Applied Science and Technology*, 39(36), 119-129.

- Aikman, S. N., Crites Jr, S. L., & Fabrigar, L. R. (2006). Beyond affect and cognition: Identification of the informational bases of food attitudes
1. *Journal of Applied Social Psychology*, 36(2), 340-382.
- Ajzen, I. (1991). The theory of planned behaviour. *Organisational Behaviour and Human Decision Processes*, 50(2), 179-211.
- Akakpo, A. J. (2015). Three-day fever. *Rev. Sci. Tech*, 34(2), 533-538.
- Akakpo, G. S. (2012). Social impact assessment of oil and gas exploration in the western region of Ghana: A case study of Sekondi/Takoradi metropolis. *Regional Maritime University Journal*, 2(May), 44-62.
- Akyuz, A. (2019). North Dakota Climate Bulletin: Vol. 13, no. 1 (Winter 2018-2019).
- Alexander, D. S., Cao, C., & Alfonso, M. L. (2021). Examining whether the social cognitive theory concepts predict childhood obesity prevention outcome expectations. *International Quarterly of Community Health Education*, 41(2), 143-151.
- Aliyu, A. A., Bello, M. U., Kasim, R., & Martin, D. (2014). Positivist and non-positivist paradigm in social science research: Conflicting paradigms or perfect partners. *Journal of Management & Sustainability*, 4, 79.
- Alzheimer, G., & Urry, H. L. (2019). Do emotions cause eating? The role of previous experiences and social context in emotional eating. *Current Directions in Psychological Science*, 28(3), 234-240.
- Alzheimer, G., Giles, G. E., Remedios, J. D., Kanarek, R. B., & Urry, H. L. (2021). Do emotions predict eating? The role of previous experiences in emotional eating in the lab and in daily life. *Appetite*, 158, 105016.

- Amendah, E., & Park, J. (2008). Consumer involvement and psychological antecedents on eco-friendly destinations: Willingness to pay more. *Journal of Hospitality & Leisure Marketing*, 17(3-4), 262-283.
- Amiri, P., Ghofranipour, F., Ahmadi, F., Hosseinpanah, F., Montazeri, A., Jalali-Farahani, S., & Rastegarpour, A. (2011). Barriers to a healthy lifestyle among obese adolescents: a qualitative study from Iran. *International Journal of Public Health*, 56, 181-189.
- Amuquandoh, F. E., & Asafo-Adjei, R. (2013). Traditional food preferences of tourists in Ghana. *British Food Journal*, 115(7), 987-1002.245
- Andaleeb, S. S., & Caskey, A. (2007). Satisfaction with food services: Insights from a college cafeteria. *Journal of Foodservice Business Research*, 10(2), 51-65.
- Anderson, K., & Miroso, M. (2014). Revealing barriers to healthier fast food consumption choices. *British Food Journal*, 116(5), 821-831.
- Andersson, T. D., & Mossberg, L. (2004). The dining experience: do restaurants satisfy customer needs? *Food Service Technology*, 4(4), 171-177.
- Andreyeva, T., Long, M. W., & Brownell, K. D. (2010). The impact of food prices on consumption: a systematic review of research on the price elasticity of demand for food. *American Journal of Public Health*, 100(2), 216-222.
- Antin, T. M., & Hunt, G. (2012). Food choice as a multidimensional experience. A qualitative study with young African American women. *Appetite*, 58(3), 856-863.

- Aparicio-Martinez, P., Perea-Moreno, A. J., Martinez-Jimenez, M. P., Redel-Macías, M. D., Pagliari, C., & Vaquero-Abellan, M. (2019). Social media, thin-ideal, body dissatisfaction and disordered eating attitudes: An exploratory analysis. *International journal of environmental research and public health*, 16(21), 4177.
- Apparicio, P., Abdelmajid, M., Riva, M., & Shearmur, R. (2008). Comparing alternative approaches to measuring the geographical accessibility of urban health services: Distance types and aggregation-error issues. *International Journal of Health Geographics*, 7, 1-14.
- Apparicio, P., Cloutier, M. S., & Shearmur, R. (2007). The case of Montreal's missing food deserts: evaluation of accessibility to food supermarkets. *International Journal of Health Geographics*, 6, 1-13.
- Ares, G., & Gámbaro, A. (2007). Influence of gender, age and motives underlying food choice on perceived healthiness and willingness to try functional foods. *Appetite*, 49(1), 148-158.
- Arsil, P., Tey, Y. S., Brindal, M., Phua, C. U., & Liana, D. (2018). Personal values underlying halal food consumption: Evidence from Indonesia and Malaysia. *British Food Journal*, 120(11), 2524-2538.
- Arthur, F. A. (2016). Effects of peri-urban agriculture on urban poverty reduction in the Sekondi-Takoradi Metropolis (Doctoral dissertation, University of Cape Coast).
- Asante-Addo, C., & Weible, D. (2020). Imported versus domestic chicken consumption in Ghana: do attitudes and perceptions matter? *Journal of International Food & Agribusiness Marketing*, 32(5), 503-526.

- Ashurst, J., Van Woerden, I., Dunton, G., Todd, M., Ohri-Vachaspati, P., Swan, P., & Bruening, M. (2018). The association among emotions and food choices in first-year college students using mobile-ecological momentary assessments. *BMC Public Health*, 18(1), 1-9.
- Auty, S. (1992). Consumer choice and segmentation in the restaurant industry. *Service Industries Journal*, 12(3), 324-339.
- Awang, Z. (2014). Gas sensors: A review. *Sens. Transducers*, 168(4), 61-75.
- Axelsson, M. L. and Brinberg, D. (1989) Nutrition Education Research Final Report. Available upon request.
- Ayenigbara, I., & Fadoju, A. (2020). Determinants of Eatery Choice. *Journal of Tourismology*, 6(2), 249-268.
- Ayenigbara, I., & Fadoju, A. (2020). Determinants of Eatery Choice. *Journal of Tourismology*, 6(2), 249-268.
- Babbie, E. (2007). *The practice of social research (11th ed.)*. Belmont, CA: Wadsworth/Thompson
- Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. *Journal of Consumer Research*, 20(4), 644-656.
- Babirye, J. N., Rutebemberwa, E., Kiguli, J., Wamani, H., Nuwaha, F., & Engebretsen, I. M. (2011). More support for mothers: a qualitative study on factors affecting immunisation behaviour in Kampala, Uganda. *BMC Public Health*, 11, 1-11.
- Bacon, L., & Krpan, D. (2018). (Not) Eating for the environment: The impact of restaurant menu design on vegetarian food choice. *Appetite*, 125, 190-200.

- Bae, S., Slevitch, L., & Tomas, S. (2018). The effects of restaurant attributes on satisfaction and return patronage intentions: Evidence from solo diners' experiences in the United States. *Cogent Business & Management*, 5(1), 1493903.
- Baker, E. A., Schootman, M., Barnidge, E., & Kelly, C. (2006). Peer reviewed: The role of race and poverty in access to foods that enable individuals to adhere to dietary guidelines. *Preventing Chronic Disease*, 3(3).
- Baker, M., Strickland, A., & Fox, N. D. (2019). Choosing a meal to increase your appeal: How relationship status, sexual orientation, dining partner sex, and attractiveness impact nutritional choices in social dining scenarios. *Appetite*, 133, 262-269.
- Ball, K., Timperio, A. F., & Crawford, D. A. (2006). Understanding environmental influences on nutrition and physical activity behaviors: Where should we look and what should we count? *International Journal of Behavioral Nutrition and Physical Activity*, 3, 33.
- Bandura, A. (1989). *Social cognitive theory*. In R. Vasta (Ed.), *Annals of child development*. Vol. 6. Six theories of child development (pp. 1-60). Greenwich, CT: JAI Press.
- Bandura, A. (2004). Swimming against the mainstream: The early years from chilly tributary to transformative mainstream. *Behaviour Research and Therapy*, 42(6), 613-630.
- Bandura, Albert (1977). *Social learning theory*. Englewood Cliffs, N.J.: Prentice-Hall.
- Bandura, Albert (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, N.J.: Prentice Hall.

- Bandura, Albert (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bao, Z., & Han, Z. (2019). What drives users' participation in online social Q&A communities? An empirical study based on social cognitive theory. *Aslib Journal of Information Management*, 71(5), 637-656.
- Barauskaite, D., Gineikiene, J., Fennis, B. M., Auruskeviciene, V., Yamaguchi, M., & Kondo, N. (2018). Eating healthy to impress: How conspicuous consumption, perceived self-control motivation, and descriptive normative influence determine functional food choices. *Appetite*, 131, 59-67.
- Barclay, K. J., Edling, C., & Rydgren, J. (2013). Peer clustering of exercise and eating behaviours among young adults in Sweden: A cross-sectional study of egocentric network data. *BMC Public Health*, 13, 784.
- Barros, S. F., & Cardoso, M. A. (2016). Adherence to and acceptability of home fortification with vitamins and minerals in children aged 6 to 23 months: a systematic review. *BMC Public Health*,
- Bartlett, M. S. (1954). A note on the multiplying factors for various χ^2 approximations. *Journal of the Royal Statistical Society. Series B (Methodological)*, 296-298.
- Bassett, R., Chapman, G. E., & Beagan, B. L. (2008). Autonomy and control: the co-construction of adolescent food choice. *Appetite*, 50(2-3), 325-332.
- Batat, W. (2021). How Michelin-starred chefs are being transformed into social bricoleurs? An online qualitative study of luxury foodservice during the pandemic crisis. *Journal of Service Management*, 32(1), 87-99.

- Bazzani, C., Gustavsen, G. W., Nayga Jr, R. M., & Rickertsen, K. (2018). A comparative study of food values between the United States and Norway. *European Review of Agricultural Economics*, 45(2), 239-272.
- Beardsworth, A., & Bryman, A. (1999). Meat consumption and vegetarianism among young adults in the UK: An empirical study. *British Food Journal*, 101(4), 289-300.
- Becker G (1965) The theory of the allocation of time. *Econ J* 75:493–517.
- Bendele Jr, M. C. (2015). *Food, space, and mobility: The railroad, chili stands, and chophouses in San Antonio and El Paso, 1870-1905* (Doctoral dissertation).
- Benkeser, R. M., Biritwum, R., & Hill, A. G. (2012). Prevalence of overweight and obesity and perception of healthy and desirable body size in urban, Ghanaian women. *Ghana Medical Journal*, 46(2), 66-75.
- Bentler, P. M. (2000). Rites, wrongs, and gold in model testing. *Structural Equation Modeling*, 7(1), 82-91.
- Beresford, B., & Sloper, P. (2008). *Understanding the dynamics of decision-making and choice: A scoping study of key psychological theories to inform the design and analysis of the panel study*. York: Social Policy Research Unit, University of York.
- Berger, J., Draganska, M., & Simonson, I. (2007). The influence of product variety on brand perception and choice. *Marketing Science*, 26(4), 460-472.
- Bernstein, C. N., Fried, M., Krabshuis, J. H., Cohen, H., Eliakim, R., Fedail, S., ... & Watermeyer, G. (2010). World Gastroenterology Organization

- Practice Guidelines for the diagnosis and management of IBD in 2010. *Inflammatory Bowel Diseases*, 16(1), 112-124.
- Berridge, K. C. (2007). The debate over dopamine's role in reward: the case for incentive salience. *Psychopharmacology*, 191, 391-431.
- Bezerra, I. N., & Sichieri, R. (2009). Eating out of home and obesity: a Brazilian nationwide survey. *Public Health Nutrition*, 12(11), 2037-2043.
- Bhuyan, M. H. (2011). Analytical modeling of the pocket implanted nano scale n-MOSFET.
- Birch, D. (1990). Language, Literature, and Critical Practice.
- Birch, D., & Lawley, M. (2012). *Buying seafood: Understanding barriers to purchase across consumption segments. Food Quality and Preference*, 26(1), 12-21.248
- Birch, L. L., & Marlin, D. W. (1982). I don't like it; I never tried it: Effects of exposure on two-year-old children's food preferences. *Appetite*, 3(4), 353-360.
- Black, C., Moon, G., & Baird, J. (2014). Dietary inequalities: What is the evidence for the effect of the neighbourhood food environment? *Health & Place*, 27, 229-242.
- Boafo, J., Sarku, R., & Obodai, J. (2021). From the kitchen to fast food restaurants: The changing culture of food in urban Ghana. *Food Studies*, 10(4), 15.
- Boateng, H., Adam, D. R., Okoe, A. F., & Anning-Dorson, T. (2016). Assessing the determinants of internet banking adoption intentions: A social cognitive theory perspective. *Computers in Human Behavior*, 65, 468-478

- Bodor, R., Drenner, A., Schrater, P., & Papanikolopoulos, N. (2007). Optimal camera placement for automated surveillance tasks. *Journal of Intelligent and Robotic Systems*, 50, 257-295.
- Boesveldt, S., & de Graaf, K. (2017). The differential role of smell and taste for eating behaviour. *Perception*, 46(3-4), 307-319.
- Boesveldt, S., Bobowski, N., McCrickerd, K., Maître, I., Sulmont-Rossé, C., & Forde, C. G. (2018). The changing role of the senses in food choice and food intake across the lifespan. *Food Quality and Preference*, 68, 80-89.
- Bohm, E., & Quartuccio, N. (2008). Healthy dining restaurant nutrition program—a winning recipe for consumers, dietitians and restaurants. *Journal of the American Dietetic Association*, 9(108), A112.
- Bolhuis, D. P., Costanzo, A., Newman, L. P., & Keast, R. S. (2016). Salt promotes passive overconsumption of dietary fat in humans. *The Journal of Nutrition*, 146(4), 838-845.
- Bolhuis, M. P., Battjes, H., & van Wijk, J. (2017). Undesirable but unreturnable migrants in the Netherlands. *Refugee Survey Quarterly*, 36(1), 61-84.
- Bollinger, B., Leslie, P., & Sorensen, A. (2011). Calorie posting in chain restaurants. *American Economic Journal: Economic Policy*, 3(1), 91-128.
- Bongers, P., & Jansen, A. (2017). Emotional eating and Pavlovian learning: evidence for conditioned appetitive responding to negative emotional states. *Cognition and Emotion*, 31(2), 284-297.
- Bonke J (1992) *Choice of foods: Allocation of time and money, household production and market services*. Copenhagen, MAPP working paper No. 3.

- Booth, W. J. (1994). On the idea of the moral economy. *American Political Science Review*, 88(3), 653-667.
- Borgogno, M., Favotto, S., Corazzin, M., Cardello, A. V., & Piasentier, E. (2015). The role of product familiarity and consumer involvement on liking and perceptions of fresh meat. *Food Quality and Preference*, 44, 139-147.
- Bove, C. F., Sobal, J., & Rauschenbach, B. S. (2003). Food choices among newly married couples: convergence, conflict, individualism, and projects. *Appetite*, 40(1), 25-41.
- Brownell, K. D., & Frieden, T. R. (2009). Ounces of prevention—the public policy case for taxes on sugared beverages. *New England Journal of Medicine*, 360(18), 1805-1808.
- Bruner, B. G., & Chad, K. E. (2014). Dietary practices and influences on diet intake among women in a Woodland Creek community. *Journal of Human Nutrition and Dietetics*, 27(Suppl. 2), 220-229.
- Bublitz, M.G., Peracchio, L.A. & Block, L.G. (2010). Why did I eat that? Perspectives on food decision making and dietary restraint. *Journal of Consumer Psychology*, 20(23):9-258.
- Buttriss, J., Stanner, S., McKevith, B., Nugent, A. P., Kelly, C., Phillips, F., & Theobald, H. E. (2004). Successful ways to modify food choice: Lessons from the literature. *Nutrition Bulletin*, 29(4), 333-343.
- Büyükkaragöz, A., Bas, M., Sağlam, D., & Cengiz, Ş. E. (2014). Consumers' awareness, acceptance and attitudes towards functional foods in Turkey. *International Journal of Consumer Studies*, 38(6), 628-635.

- Canny, I. U. (2014). Measuring the mediating role of dining experience attributes on customer satisfaction and its impact on behavioral intentions of casual dining restaurants in Jakarta. *International Journal of Innovation, Management and Technology*, 5(1), 25-29.
- Cardi, V., Leppanen, J., & Treasure, J. (2015). The effects of negative and positive mood induction on eating behaviour: A meta-analysis of laboratory studies in the healthy population and eating and weight disorders. *Neuroscience & Biobehavioral Reviews*, 57, 299-309.
- Carocho, M., Barreiro, M. F., Morales, P., & Ferreira, I. C. (2014). Adding molecules to food, pros and cons: A review on synthetic and natural food additives. *Comprehensive Reviews in Food Science and Food Safety*, 13(4), 377-399.
- Carroll, G. R., & Wheaton, D. R. (2009). The organizational construction of authenticity: An examination of contemporary food and dining in the US. *Research in Organizational Behaviour*, 29, 255-282.
- Cecchini, M., & Warin, L. (2016). Impact of food labelling systems on food choices and eating behaviours: a systematic review and meta-analysis of randomized studies. *Obesity Reviews*, 17(3), 201-210.
- Chai, A., Rohde, N., & Silber, J. (2015). Measuring the diversity of household spending patterns. *Journal of Economic Surveys*, 29(3), 423-440.
- Chandon, P., & Wansink, B. (2007). The biasing health halos of fast-food restaurant health claims: lower calorie estimates and higher side-dish consumption intentions. *Journal of Consumer Research*, 34(3), 301-314.
- Chang, J. H. (2017). *Climate and agriculture: an ecological survey*. Routledge.

- Chang, R. C. Y., Kivela, J., & Mak, A. H. N. (2010). Food preferences of Chinese tourists. *Annals of Tourism Research*, 37(4), 989-1011.
- Chen, C. Y., Lee, W. I., Kuo, H. M., Chen, C. W., & Chen, K. H. (2010). The study of a forecasting sales model for fresh food. *Expert Systems with Applications*, 37(12), 7696-7702.
- Chen, J. (2007). Surface texture of foods: Perception and characterization. *Critical Reviews in Food Science and Nutrition*, 47(6), 583-598.
- Chen, J., Lobo, A., & Rajendran, N. (2014). Drivers of organic food purchase intentions in mainland China—evaluating potential customers' attitudes, demographics, and segmentation. *International Journal of Consumer Studies*, 38(4), 346-356.
- Chen, M. F. (2011). The gender gap in food choice motives as determinants of consumers' attitudes toward GM foods in Taiwan. *British Food Journal*, 113(6), 697-709.
- Chen, P. J., & Antonelli, M. (2020). Conceptual models of food choice: influential factors related to foods, individual differences, and society. *Foods*, 9(12), 1898.
- Chen, P. J., & Antonelli, M. (2020). Conceptual models of food choice: Influential factors related to foods, individual differences, and society. *Foods*, 9(12), 1898.
- Chen, X., & Yang, X. (2014). Does food environment influence food choices? A geographical analysis through “tweets”. *Applied Geography*, 51, 82-89.

- Cheng, C. C., Wu, H. C., Tsai, M. C., Chang, Y. Y., & Chen, C. T. (2020). Determinants of customers' choice of dining-related services: the case of Taipei City. *British Food Journal*, 122(5), 1549-1571.
- Chenhall, E. C. (2010). *Assessing safety culture, values, practices, and outcomes*. Colorado State University.
- Cherikh, F., Frey, S., Bel, C., Attanasi, G., Alifano, M., & Iannelli, A. (2020). Behavioural food addiction during a lockdown: Time for awareness, time to prepare the aftermath. *Obesity Surgery*, 30, 3585-3587.
- Cheung, T. T., Gillebaart, M., Kroese, F. M., Marchiori, D., Fennis, B. M., & De Ridder, D. T. (2019). Cueing healthier alternatives for take-away: a field experiment on the effects of (disclosing) three nudges on food choices. *BMC Public Health*, 19, 1-10.
- Chien, C. W., Rodger, S., & Copley, J. (2017). Parent-reported participation in children with moderate-to-severe developmental disabilities: Preliminary analysis of associated factors using the ICF framework. *International Journal of Disability, Development and Education*, 64(5), 483-496.
- Child, D. (2006). The essentials of factor analysis. A&C Black. Childhood. *Food Quality and Preference*, 15, 805-818
- Ching, B. H. H., & Xu, J. T. (2019). Understanding cosmetic surgery consideration in Chinese adolescent girls: Contributions of materialism and sexual objectification. *Body Image*, 28, 6-15.
- Choi, J., & Zhao, J. (2014). Consumers' behaviours when eating out: Does eating out change consumers' intention to eat healthily? *British Food Journal*, 116(3), 494-509.

- Chrisinger, B. W., Kallan, M. J., Whiteman, E. D., & Hillier, A. (2018). Where do US households purchase healthy foods? An analysis of food-at-home purchases across different types of retailers in a nationally representative dataset. *Preventive Medicine, 112*, 15-22.
- Christoph, M. J., Larson, N., Laska, M. N., & Neumark-Sztainer, D. (2018). Nutrition facts panels: who uses them, what do they use, and how does use relate to dietary intake? *Journal of the Academy of Nutrition and Dietetics, 118*(2), 217-228.
- Chua, B. L., Karim, S., Lee, S., & Han, H. (2020). Customer restaurant choice: an empirical analysis of restaurant types and eating-out occasions. *International Journal of Environmental Research and Public Health, 17*(17), 6276.
- Clark, M., & Tilman, D. (2017). Comparative analysis of environmental impacts of agricultural production systems, agricultural input efficiency, and food choice. *Environmental Research Letters, 12*(6), 064016.
- Clarke, C., Abel, K., & Best, T. (2023). Consumer understanding of sugar types predicts food label use. *Nutrition & Food Science, 53*(5), 823-836.
- Clements, K. W., & Si, J. (2018). Engel's law, diet diversity, and the quality of food consumption. *American Journal of Agricultural Economics, 100*(1), 1-22.
- Cliceri, D., Spinelli, S., Dinnella, C., Prescott, J., & Monteleone, E. (2018). The influence of psychological traits, beliefs and taste responsiveness on implicit attitudes toward plant-and animal-based dishes among vegetarians, flexitarians and omnivores. *Food Quality and Preference, 68*, 276-291.

- Cohen, E., Boetsch, G., Palstra, F. P., & Pasquet, P. (2013). Social valorisation of stoutness as a determinant of obesity in the context of nutritional transition in Cameroon: The Bamiléké case. *Social Science & Medicine*, 96, 24-32.
- Collins, H. (2010) "Creative Research: The Theory and Practice of Research for the Creative Industries" AVA Publications, p.38.
- Concas, M. P., Catamo, E., Biino, G., Toniolo, D., Gasparini, P., & Robino, A. (2019). Factors associated with food liking and their relationship with metabolic traits in Italian cohorts. *Food Quality and Preference*, 75, 64-70.
- Convertino, A. D., Brady, J. P., Grunewald, W., & Blashill, A. J. (2021). Intimate partner violence and muscularity-building behaviour in Latino sexual minority men. *Eating Disorders*, 29(3), 245-259.
- Costello, M. J., Coll, M., Danovaro, R., Halpin, P., Ojaveer, H., & Miloslavich, P. (2010). A census of marine biodiversity knowledge, resources, and future challenges. *PloS one*, 5(8), e12110.
- Cowburn, G., & Stockley, L. (2005). Consumer understanding and use of nutrition labelling: A systematic review. *Public Health Nutrition*, 8(1), 21-28.
- Cox, D. N., Melo, L., Zabararas, D., & Delahunty, C. M. (2012). Acceptance of health-promoting Brassica vegetables: The influence of taste perception, information and attitudes. *Public Health Nutrition*, 15(8), 1474-1482.
- Crane, M. M., Tangney, C. C., French, S. A., Wang, Y., & Appelhans, B. M. (2019). Gender comparison of the diet quality and sources of food

- purchases made by urban primary household food purchasers. *Journal of nutrition education and behaviour*, 51(2), 199-204
- Creswell, J. D. (2017). Mindfulness interventions. *Annual Review of Psychology*, 68(1), 491-516.
- Creswell, J. W. (2013). Steps in conducting a scholarly mixed methods study.
- Crowther, D. & Lancaster, G. (2008). *Research methods: A concise introduction to research in management and business consultancy*. Butterworth-Heinemann
- Cruwys, T., Bevelander, K. E., & Hermans, R. C. (2015). Social modelling of eating: A review of when and why social influence affects food intake and choice. *Appetite*, 86, 3-18.
- Cullen, K. E. (2004). Sensory signals during active versus passive movement. *Current Opinion in Neurobiology*, 14(6), 698-706.
- Cummins, S., Petticrew, M., Sparks, L., & Findlay, A. (2005). Large-scale food retail interventions and diet. *Bmj*, 330(7493), 683-684.
- Dagevos, H., & van Ophem, J. (2013). Food consumption value: developing a consumer-centred concept of value in the field of food. *British Food Journal*, 115(10), 1473.
- Darmon, N., & Drewnowski, A. (2015). Contribution of food prices and diet cost to socioeconomic disparities in diet quality and health: A systematic review and analysis. *Nutrition Reviews*, 73(10), 643-660.
- Darmon, N., Briend, A., & Drewnowski, A. (2004). Energy-dense diets are associated with lower diet costs: a community study of French adults. *Public Health Nutrition*, 7(1), 21-27.

- Darmon, N., Lacroix, A., Muller, L., & Ruffieux, B. (2016). Food price policies may improve diet but increase socioeconomic inequalities in nutrition. *Hidden Hunger*, 115, 36-45.
- Darnton, A., & Evans, D. (2013). Influencing Behaviours: A Technical Guide to the ISM Tool, 2013. *Scottish Government: Edinburgh, UK*.
- de Boer, J., Schösler, H., & Aiking, H. (2017). Towards a reduced meat diet: Mindset and motivation of young vegetarians, low, medium and high meat-eaters. *Appetite*, 113, 387-397.
- de Castro, J. M. (1991). Weekly rhythms of spontaneous nutrient intake and meal pattern of humans. *Physiology & Behaviour*, 50(4), 729-738.
- De Castro, J. M., & Brewer, E. M. (1992). The amount eaten in meals by humans is a power function of the number of people present. *Physiology & Behaviour*, 51(1), 121-125.
- De Ridder, D., Adriaanse, M., Evers, C., & Verhoeven, A. (2014). Who diets? Most people especially when they worry about food. *Appetite*, 80, 103-108.
- De Silva, P., & Rachman, S. (1987). Human food aversions: Nature and acquisition. *Behaviour Research and Therapy*, 25(6), 457- 468.
- De Vries, H., Engels, R., Kremers, S., Wetzels, J., & Mudde, A. (2003). Parents' and friends' smoking status as predictors of smoking onset: Findings from six European countries. *Health Education Research*, 18(5), 627-636.
- de Wijk, R. A., Polet, I. A., Boek, W., Coenraad, S., & Bult, J. H. (2012). Food aroma affects bite size. *Flavour*, 1, 1-6.

- Dean, W. R., & Sharkey, J. R. (2011). Rural and urban differences in the associations between characteristics of the community food environment and fruit and vegetable intake. *Journal of Nutrition Education and Behaviour*, 43(6), 426-433.
- Degreef, F. (2019). A Making Sense of New Food Technologies and Trust in Food. *Tasting Cultures: Thoughts for Food*, 53.
- DeJean, J. (2007). *The essence of style: How the French invented high fashion, fine food, chic cafes, style, sophistication, and glamour*. Simon and Schuster.
- Demattè, M. L., Endrizzi, I., & Gasperi, F. (2014). Food neophobia and its relation with olfaction. *Frontiers in Psychology*, 5, 127.
- Devine C. M., Connors M., Bisogni C. A. & Sobal J (1998). Life-course influences on the development of a food choice trajectory: A qualitative analysis of fruit and vegetable use. *Journal Nutrition Education*, 30, 361–370.
- Devine, C. M., Connors, M. M., Sobal, J., & Bisogni, C. A. (2003). Sandwiching it in: Spillover of work onto food choices and family roles in low-and moderate-income urban households. *Social Science & Medicine*, 56(3), 617-630.
- Diaz Jr, L. A., Williams, R. T., Wu, J., Kinde, I., Hecht, J. R., Berlin, J., ... & Vogelstein, B. (2012). The molecular evolution of acquired resistance to targeted EGFR blockade in colorectal cancers. *Nature*, 486(7404), 537-540.
- Dietz, M. (2010). *Wandering Monks, Virgins, and Pilgrims: Ascetic Travel in the Mediterranean World*, A. Penn State Press.

- Dowray, S., Swartz, J. J., Braxton, D., & Viera, A. J. (2013). Potential effect of physical activity-based menu labels on the calorie content of selected fast-food meals. *Appetite*, 62, 173-181.
- Drewnowski, A. (1990). The new fat replacements. A strategy for reducing fat consumption. *Postgraduate Medicine*, 87, 111-121.
- Drewnowski, A. (1993). Individual differences in sensory preferences for fat in model sweet dairy products. *Acta Psychologica*, 84, 103-110.
- Drewnowski, A. (2010). The cost of US foods as related to their nutritive value. *The American Journal of Clinical Nutrition*, 92(5), 1181-1188.
- Drewnowski, A., & Schwartz, M. (1990). Invisible fats: sensory assessment of sugar/fat mixtures. *Appetite*, 14(3), 203-217.
- Driscoll, A., & Krook, M. L. (2012). Feminism and rational choice theory. *European Political Science Review*, 4(2), 195-216.
- Du Plessis, E. (2011). *The branded mind: What neuroscience really tells us about the puzzle of the brain and the brand*. Kogan Page Publishers.
- Duarte Alonso, A. (2014). "Saborea (Tasting) Lanzarote": Building the foundation of a new food and wine event through collaborative efforts. *Tourism Planning & Development*, 11(1), 68-85.
- Duarte Alonso, A., O'Neill, M., Liu, Y., & O'Shea, M. (2013). Factors driving consumer restaurant choice: An exploratory study from the Southeastern United States. *Journal of Hospitality Marketing & Management*, 22(5), 547-567.
- Dubé, L., Fatemi, H., Lu, J., & Hertzner, C. (2016). The healthier the tastier? USA-India comparison studies on consumer perception of a nutritious

- agricultural product at different food processing levels. *Frontiers In Public Health*, 4, 6.
- Dumanovsky, T., Huang, C. Y., Bassett, M. T., & Silver, L. D. (2010). Consumer awareness of fast-food calorie information in New York City after implementation of a menu labelling regulation. *American Journal of Public Health*, 100(12), 2520-2525.
- Edwards, J. R., Peterson, K. D., Andrus, M. L., Tolson, J. S., Goulding, J. S., Dudeck, M. A., ... & Facilities, N. H. S. N. (2007). National Healthcare Safety Network (NHSN) report, data summary for 2006, issued June 2007. *American Journal of Infection Control*, 35(5), 290-301.
- Eertmans, A., Baeyens, F., & Van Den Bergh, O. (2001). Food likes and their relative importance in human eating behaviour: Review and preliminary suggestions for health promotion. *Health Education Research*, 16(4), 443-456.
- Elbel, B., Gyamfi, J., & Kersh, R. (2011). Child and adolescent fast-food choice and the influence of calorie labelling: A natural experiment. *International journal of obesity*, 35(4), 493-500.
- Ellis, M. (2013, December 31). *Our food choices are influenced by social norms: Study suggests*. Medical News Today. Retrieved from <http://www.medicalnewstoday.com/articles/270722.php>
- Enriquez, J. P., & Archila-Godinez, J. C. (2021). Social and cultural influences on food choices: A review. *Critical Reviews in Food Science and Nutrition*, 1-7.

- Epstein, L. H., Handley, E. A., Dearing, K. K., Cho, D. D., Roemmich, J. N., Paluch, R. A., ... & Spring, B. (2006). Purchases of food in youth: influence of price and income. *Psychological Science*, 17(1), 82-89.
- Epstein, L. H., Leddy, J. J., Temple, J. L., & Faith, M. S. (2007). Food reinforcement and eating: A multilevel analysis. *Psychological Bulletin*, 133(5), 884.
- Eriksson, L. (2011). *Rational choice theory: Potential and limits*. Bloomsbury Publishing.
- European Food Information Council. (2011). Can cooking skills be the key to health? (Food Today). Retrieved from http://www.eufic.org/article/en/artid/Cooking_skills_key_health/.
- Evers, C., Dingemans, A., Junghans, A. F., & Boevé, A. (2018). Feeling bad or feeling good, does emotion affect your consumption of food? A meta-analysis of the experimental evidence. *Neuroscience & Biobehavioral Reviews*, 92, 195-208.
- Falciglia, G., Pabst, S., Couch, S., & Goody, C. (2004). Impact of parental food choices on child food neophobia. *Children's Health Care*, 33(3), 217-225.
- Falk L.W., Bisogni C. A. & Sobal J. (2000) Personal, social and situational influences associated with diet changes of participants in an intensive heart program. *Journal Nutrition Education*, 32, 251–260.
- Fatemi, H., Kao, E., Schillo, R. S., Li, W., Du, P., Jian-Yun, N., & Dube, L. (2023). Using social media to analyze consumers' attitudes toward natural food products. *British Food Journal*, 125(9), 3145-3159.

- Fehr, E., & Fischbacher, U. (2002). Why social preferences matter—the impact of non-selfish motives on competition, cooperation and incentives. *The Economic Journal*, 112(478), C1-C33.
- Feig, E. H., Piers, A. D., Kral, T. V., & Lowe, M. R. (2018). Eating in the absence of hunger is related to loss-of-control eating, hedonic hunger, and short-term weight gain in normal-weight women. *Appetite*, 123, 317-324.
- Feldman, C. H., Hartwell, H., Brusca, J., Su, H., & Zhao, H. (2015). Nutrition information and its influence on menu choice within higher education establishments. *British Food Journal*, 117(4), 1399-1410.
- Femqvist, F., & Ekelund, L. (2014). Credence and the effect on consumer liking of food - A review. *Food Quality and Preference*, 32, 340-353.
- Ferguson, P. P. (2006). *Accounting for taste: The triumph of French cuisine*. University of Chicago Press.
- Field, G. (2013). *Plato and his contemporaries (RLE: Plato): A study in fourth-century life and thought*. Routledge.
- Filimonau, V., Lemmer, C., Marshall, D., & Bejjani, G. (2017). 'Nudging' as an architect of more responsible consumer choice in food service provision: The role of restaurant menu design. *Journal of Cleaner Production*, 144, 161-170.
- Filimonau, V., Lemmer, C., Marshall, D., & Bejjani, G. (2017). Restaurant menu re-design as a facilitator of more responsible consumer choice: An exploratory and preliminary study. *Journal of Hospitality and Tourism Management*, 33, 73-81.

- Finch, L. E., & Tomiyama, A. J. (2014). *Stress-induced eating dampens physiological and behavioural stress responses*. In R. R. Watson (Ed.), *Nutrition in and prevention and treatment of abdominal obesity* (pp. 189–196). New York, NY: Elsevier.
- Finkelstein, J. (1989). *Dining out: A sociology of modern manners*. Polity Press.
- Fitzgerald, A., Heary, C., Kelly, C., Nixon, E., & Shevlin, M. (2013). Self-efficacy for healthy eating and peer support for unhealthy eating are associated with adolescents' food intake patterns. *Appetite*, 63, 48-58.
- Forde, C. G. (2018). From perception to ingestion: The role of sensory properties in energy selection, eating behaviour and food intake. *Food Quality and Preference*, 66, 171-177.
- Forde, C. G., & de Graaf, K. (2022). Influence of sensory properties in moderating eating behaviours and food intake. *Frontiers in nutrition*, 9, 841444.
- Forde, C. G., Almiron-Roig, E., & Brunstrom, J. M. (2015). Expected satiety: Application to weight management and understanding energy selection in humans. *Current Obesity Reports*, 4, 131-140.
- Forde, C. G., Van Kuijk, N., Thaler, T., De Graaf, C., & Martin, N. (2013). Oral processing characteristics of solid savoury meal components, and relationship with food composition, sensory attributes and expected satiation. *Appetite*, 60, 208-219.
- Fotopoulos, C., Krystallis, A., Vassallo, M., & Pagiaslis, A. (2009). Food Choice Questionnaire (FCQ) revisited. Suggestions for the development of an enhanced general food motivation model. *Appetite*, 52(1), 199-208.

- Fox, R. (2003). Food and eating: an anthropological perspective. *Social Issues Research Centre, 2003*, 1-21.
- Foxall, G. (2005). *Understanding consumer choice*. Springer.
- Foxall, G. R. (2010). Accounting for consumer choice: Inter-temporal decision making in behavioural perspective. *Marketing Theory, 10*(4), 315-345.
- Franchi, M. (2012). Food choice: Beyond the chemical content. *International Journal of Food Sciences and Nutrition, 63*(S1), 17-28.
- Frank, R. A., & Byram, J. (1988). Taste–smell interactions are tastant and odorant dependent. *Chemical Senses, 13*(3), 445-455.
- Freedman, D. A. (2009). Local food environments: They're all stocked differently. *American Journal of Community Psychology, 44*, 382-393.
- Fukagawa, N. K., & Ziska, L. H. (2019). Rice: Importance for global nutrition. *Journal of Nutritional Science and Vitaminology, 65*(Supplement), S2-S3.
- Furst T, Connors M, Bisogni C, Sobal J, Falk L (1996) Food choice: a conceptual model of the process. *Appetite 26*(3):247–265
- Gallicano, R., Blomme, R. J., & van Rheede, A. (2012). Consumer response to nutrition information menu labelling in full-service restaurants: Making the healthy choice. In *Advances in Hospitality and Leisure* (pp. 109-125). Emerald Group Publishing Limited.
- Gallicano, R., Blomme, R. J., & van Rheede, A. (2012). Consumer response to nutrition information menu labelling in full-service restaurants: Making the healthy choice. In *Advances in Hospitality and Leisure* (pp. 109-125). Emerald Group Publishing Limited.

- Gama, A. P., Adhikari, K., & Hoisington, D. A. (2018). Peanut consumption in Malawi: An opportunity for innovation. *Foods*, 7(7), 112.
- Gao, Y. L., & Mattila, A. S. (2017). The impact of stereotyping on consumers' food choices. *Journal of Business Research*, 81, 80-85.
- Garcia-Bailo, B., Toguri, C., Eny, K. M., & El-Sohemy, A. (2009). Genetic variation in taste and its influence on food selection. *OMICS A Journal of Integrative Biology*, 13(1), 69-80.
- Gardner, M. P., Wansink, B., Kim, J., & Park, S. B. (2014). Better moods for better eating?: How mood influences food choice. *Journal of Consumer Psychology*, 24(3), 320-335.
- Gass, S., Mackey, A., & Ross-Feldman, L. (2005). Task-based interactions in classroom and laboratory settings. *Language learning*, 55(4), 575-611.
- Gibson, E. L., & Desmond, E. (1999). Chocolate craving and hunger state: Implications for the acquisition and expression of appetite and food choice. *Appetite*, 32(2), 219-240.
- Gidlöf, K., Ares, G., Aschemann-Witzel, J., & Otterbring, T. (2021). Give us today our daily bread: The effect of hunger on consumers' visual attention towards bread and the role of time orientation. *Food Quality and Preference*, 88, 104079.
- Giesen, J. C., Havermans, R. C., Douven, A., Tekelenburg, M., & Jansen, A. (2010). Will work for snack food: The association of BMI and snack reinforcement. *Obesity*, 18(5), 966-970.
- Gisslen, W. (2018). *Professional cooking*. John Wiley & Sons.

- Glaholt, M. G., Wu, M. C., & Reingold, E. M. (2010). Evidence for top-down control of eye movements during visual decision-making. *Journal of Vision, 10*(5), 15-15.
- Glanz, K., Hewitt, A. M., & Rudd, J. (1992). Consumer behaviour and nutrition education: an integrative review. *Journal of Nutrition Education, 24*(5), 267-277.
- Glanz, K., Sallis, J. F., Saelens, B. E., & Frank, L. D. (2005). Healthy nutrition environments: concepts and measures. *American Journal of Health Promotion, 19*(5), 330-333.
- Gombert, K., Douglas, F., McArdle, K., & Carlisle, S. (2017). Failure as Learning: Photovoice as Methodology in Research with Marginalised Young People. *Excursions Journal, 7*(1), 67-92.
- Gomez, M., & Bouty, I. (2011). The emergence of an influential practice: Food and organizational sensemaking over time. *Organization Studies, 32*(7), 921-940.
- Gong, Y., Li, J., Xie, J., & Tan, Y. (2020). Relationship between types of food choice motives and well-being among young and middle-aged Chinese adults. *International Journal of Consumer Studies, 44*(4), 369-378.
- Goody, J. (1982). *Cooking, cuisine and class: A study in comparative sociology*. Cambridge University Press.
- Graça, J., Truninger, M., Junqueira, L., & Schmidt, L. (2019). Consumption orientations may support (or hinder) transitions to more plant-based diets. *Appetite, 140*, 19-26.
- Grafova, I. B. (2005). *Health behaviours, health knowledge and economic well-being*. University of Michigan.

- Grazin, K. L., & Olsen, J. E. (1997). Market segmentation for fast-food restaurants in an era of health consciousness. *Journal of Restaurant & Foodservice Marketing*, 2(2), 1-20.
- Green, N. (2002). On the move: Technology, mobility, and the mediation of social time and space. *The Information Society*, 18(4), 281-292.
- Grotkamp, S., Cibis, W., Nüchtern, E., Von Mittelstaedt, G., & Seger, W. (2012). Personal factors in the international classification of functioning, disability and health: Prospective evidence. *The Australian Journal of Rehabilitation Counselling*, 18(1), 1-24.
- Gustafsson, I. B., Öström, Å., Johansson, J., & Mossberg, L. (2006). The five aspects meal model: A tool for developing meal services in restaurants. *Journal of Food Service*, 17(2), 84-93.
- Gutjar, S., de Graaf, C., Kooijman, V., de Wijk, R. A., Nys, A., Ter Horst, G. J., & Jager, G. (2015). The role of emotions in food choice and liking. *Food Research International*, 76, 216-223.
- Ha, E. J., & Caine-Bish, N. (2009). Effect of nutrition intervention using a general nutrition course for promoting fruit and vegetable consumption among college students. *Journal of Nutrition Education and Behaviour*, 41(2), 103-109.
- Ha, E. J., & Caine-Bish, N. (2011). Interactive introductory nutrition course focusing on disease prevention increased whole-grain consumption by college students. *Journal of Nutrition Education and Behaviour*, 43(4), 263-267.

- Ha, J., & Jang, S. S. (2012). The effects of dining atmospherics on behavioural intentions through quality perception. *Journal of Services Marketing, 26*(3), 204-215.
- Hair, E. C., Moore, K. A., Garrett, S. B., Kinukawa, A., Lippman, L. H., & Michelson, E. (2005). The parent-adolescent relationship scale. *What do children need to flourish? Conceptualizing and Measuring Indicators of Positive Development*, 183-202.
- Halkier, B. (2020). Social interaction as key to understanding the intertwining of routinized and culturally contested consumption. *Cultural Sociology, 14*(4), 399-416.
- Hallström, E., Sestili, F., Lafiandra, D., Björck, I., & Östman, E. (2011). A novel wheat variety with elevated content of amylose increases resistant starch formation and may beneficially influence glycaemia in healthy subjects. *Food & Nutrition Research, 55*(1), 7074.
- Han, H., & Hyun, S. S. (2017). Impact of hotel-restaurant image and quality of physical environment, service, and food on satisfaction and intention. *International Journal of Hospitality Management, 63*, 82-92.
- Han, H., Hsu, L. T. J., Lee, J. S., & Sheu, C. (2011). Are lodging customers ready to go green? An examination of attitudes, demographics, and eco-friendly intentions. *International Journal of Hospitality Management, 30*(2), 345-355.
- Hansen, K. V., Jensen, Ø., & Gustafsson, I. B. (2005). The meal experiences of à la carte restaurant customers. *Scandinavian Journal of Hospitality and Tourism, 5*(2), 135-151.

- Hansen, T., Sørensen, M. I., & Eriksen, M. L. R. (2018). How the interplay between consumer motivations and values influences organic food identity and behaviour. *Food Policy*, 74, 39-52.
- Harnack, L., Block, G., Subar, A., Lane, S., & Brand, R. (1997). Association of cancer prevention-related nutrition knowledge, beliefs, and attitudes to cancer prevention dietary behaviour. *Journal of the American Dietetic Association*, 97, 957–965.
- Harrington, A. W., Hillaire, C. S., Zweifel, L. S., Glebova, N. O., Philippidou, P., Halegoua, S., & Ginty, D. D. (2011). Recruitment of actin modifiers to TrkA endosomes governs retrograde NGF signalling and survival. *Cell*, 146(3), 421-434.
- Harrington, R. J., Ottenbacher, M. C., & Way, K. A. (2013). QSR choice: Key restaurant attributes and the roles of gender, age and dining frequency. *Journal of Quality Assurance in Hospitality & Tourism*, 14(1), 81-100.
- Hastings, G., Stead, M., McDermott, L., Forsyth, A., MacKintosh, A. M., Rayner, M., ... & Angus, K. (2003). Review of research on the effects of food promotion to children. *London: Food Standards Agency*.
- Hayford, F., Steiner-Asiedu, M., & Sakyi-Dawson, E. (2015). Food choice behaviour among Ghanaians: Implications for health promotion. *World Journal of Nutrition Health*, 3(1), 22-28.
- Heathcote, F., & Baic, S. (2011). The effectiveness and acceptability of a traffic light labelled menu with energy information to signpost customers towards healthier alternatives in a table service restaurant. *Journal of Human Nutrition and Dietetics*, 24(4), 390-391.

- Heerman, W. J., Taylor, J. L., Wallston, K. A., & Barkin, S. L. (2017). Parenting self-efficacy, parent depression, and healthy childhood behaviours in a low-income minority population: A cross-sectional analysis. *Maternal and Child Health Journal*, 21, 1156-1165.
- Hendrickson, D., Smith, C., & Eikenberry, N. (2006). Fruit and vegetable access in four low-income food desert communities in Minnesota. *Agriculture and Human Values*, 23, 371-383.
- Hendrie, G. A., Coveney, J., & Cox, D. (2008). Exploring nutrition knowledge and the demographic variation in knowledge levels in an Australian community sample. *Public Health Nutrition*, 11(12), 1365-1371.
- Herle, M., Fildes, A., Steinsbekk, S., Rijdsdijk, F., & Llewellyn, C. H. (2017). Emotional over-and under-eating in early childhood are learned not inherited. *Scientific Reports*, 7(1), 9092.
- Herne, S. (1995). Research on food choice and nutritional status in elderly people: a review. *British Food Journal*, 97(9), 12-29.
- Hetherington, M. M., & Rolls, B. J. (1996). Sensory-specific satiety: Theoretical frameworks and central characteristics.
- Hetherington, M., Rolls, B. J., & Burley, V. J. (1989). The time course of sensory-specific satiety. *Appetite*, 12(1), 57-68.
- Hiamy, S. E. (2017). *International Tourists' Experiences with Ghanaian Cuisine: Implications for Food Tourism Development* (Doctoral dissertation, University of Cape Coast).
- Hieke, S., & Harris, J. L. (2016). Nutrition information and front-of-pack labelling: issues in effectiveness. *Public Health Nutrition*, 19(12), 2103-2105.

- Hillier, J., Walter, C., Malin, D., Garcia-Suarez, T., Mila-i-Canals, L., & Smith, P. (2011). A farm-focused calculator for emissions from crop and livestock production. *Environmental Modelling & Software*, 26(9), 1070-1078.
- Hindmoor, A. (2011). 'Major combat operations have ended'? Arguing about rational choice. *British Journal of Political Science*, 41(1), 191-210.
- Hoegg, J., & Alba, J. W. (2007). Taste perception: More than meets the tongue. *Journal of Consumer Research*, 33(4), 490-498.
- Hoek, A. C., Pearson, D., James, S. W., Lawrence, M. A., & Friel, S. (2017). Healthy and environmentally sustainable food choices: Consumer responses to point-of-purchase actions. *Food Quality and Preference*, 58, 94-106.
- Hoffman, A. N. (2014). Chipotle Mexican Grill Inc.: Conscious Capitalism by Serving 'Food With Integrity'. Rotterdam School of Management, Erasmus University.
- Hogenkamp, P. S., Stafleu, A., Mars, M., Brunstrom, J. M., & de Graaf, C. (2011). Texture, not flavour, determines the expected satiation of dairy products. *Appetite*, 57(3), 635-641.
- Hopwood, C. J., Piazza, J., Chen, S., & Bleidorn, W. (2021). Development and validation of the motivations to Eat Meat Inventory. *Appetite*, 163, 105210.
- Horner Jr, T. N. (1998). *The development of the Cornell University Eating Motivation Trait Inventory: A questionnaire to characterize and quantify normal eating behavior*. Cornell University.

- Hough, G., & Sosa, M. (2015). Food choice in low-income populations - A review. *Food Quality and Preference*, 40, 334-342.
- Hsu, C. H., & Huang, S. (2012). An extension of the theory of planned behaviour model for tourists. *Journal of Hospitality & Tourism Research*, 36(3), 390-417.
- Hu, Y., Su, M., Wang, Y., Cui, S., Meng, F., Yue, W., ... & Yang, Z. (2020). Food production in China requires intensified measures to be consistent with national and provincial environmental boundaries. *Nature Food*, 1(9), 572-582.
- Hunt, L. (2013). Family romance of the French revolution. Routledge.
- Hutchings, J. F. (2003). *Project scheduling handbook*. CRC Press.
- Hwang, J., & Cranage, D. A. (2015). College students' health perceptions of individual fast food menu items according to nutrition knowledge and health consciousness. *Journal of Foodservice Business Research*, 18(5), 520-535.
- Iyengar, S. (2010). *The art of choosing*. Hachette UK.
- Jack Kivela, J. (1997). Restaurant marketing: Selection and segmentation in Hong Kong. *International Journal of Contemporary Hospitality Management*, 9(3), 116-123.
- Jackson, S. E., Joshi, A., & Erhardt, N. L. (2003). Recent research on team and organizational diversity: SWOT analysis and implications. *Journal of Management*, 29(6), 801-830.
- Jacobson, M. Z. (2001). Strong radiative heating due to the mixing state of black carbon in atmospheric aerosols. *Nature*, 409(6821), 695-697.

- Jaeger, S. R., Bava, C. M., Worch, T., Dawson, J., & Marshall, D. W. (2011). The food choice kaleidoscope. A framework for structured description of product, place and person as sources of variation in food choices. *Appetite*, 56(2), 412-423.
- Jansen, A., Havermans, R., Nederkoorn, C., & Roefs, A. (2008). Jolly fat or sad fat? Subtyping non-eating disordered overweight and obesity along an affect dimension. *Appetite*, 51(3), 635-640.
- Jansson-Boyd, C. V. (2010). *Consumer psychology*. New York, USA: Open University Press
- Jeltema, M., Beckley, J., & Vahalik, J. (2015). Model for understanding consumer textural food choice. *Food Science & Nutrition*, 3(3), 202-212.
- Jeltema, M., Beckley, J., & Vahalik, J. (2016). Food texture assessment and preference based on mouth behaviour. *Food Quality and Preference*, 52, 160-171.
- Jetter, K. M., & Cassady, D. L. (2006). The availability and cost of healthier food alternatives. *American Journal of Preventive Medicine*, 30(1), 38-44.
- Jha, P., Chaloupka, F. J., Corrao, M., & Jacob, B. (2006). Reducing the burden of smoking worldwide: Effectiveness of interventions and their coverage. *Drug and Alcohol Review*, 25(6), 597-609.
- Jilcott, S. B., Moore, J. B., Wall-Bassett, E. D., Liu, H., & Saelens, B. E. (2011). Association between travel times and food procurement practices among female supplemental nutrition assistance program participants in eastern

- North Carolina. *Journal of Nutrition Education and Behaviour*, 43(5), 385-389.
- Johansson, M. V., Heldt, T., & Johansson, P. (2006). The effects of attitudes and personality traits on mode choice. *Transportation Research Part A: Policy and Practice*, 40(6), 507-525.
- Jones, C. S. (2010). Encouraging healthy eating at restaurants: themes uncovered through focus group research. *Services Marketing Quarterly*, 31(3), 334-347.
- Jones, N. R., Conklin, A. I., Suhrcke, M., & Monsivais, P. (2014). The growing price gap between more and less healthy foods: Analysis of a novel longitudinal UK dataset. *PloS one*, 9(10), e109343.
- Just D., David, Mancino, L., & Wansink, B. (2007). *Could behavioural economics help improve diet quality for nutrition assistance program participants?* Economic Research Report No. 43, U.S. Department of Agriculture, Economic Research Service, June.
- Just, D. R., Heiman, A., & Zilberman, D. (2007). The interaction of religion and family members' influence on food decisions. *Food Quality and Preference*, 18(5), 786-794.
- Kabeer, N. (2000). Inter-generational contracts, demographic transitions and the 'quantity-quality trade-off: Parents, children and investing in the future. *Journal of International Development: The Journal of the Development Studies Association*, 12(4), 463-482.
- Kaboub, F. (2008). Positivist paradigm. *Encyclopaedia of counselling*, 2(2), 343.

- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31-36.
- Kalog, G. L. S., Kasim, F., Anyebuno, B., Tei, S., Kubuga, C. K., Mogre, V., & Aryee, P. A. (2022). Food advertisement influences food decision making and not nutritional status: a study among university students in Ghana. *BMC nutrition*, 8(1), 72.
- Kang, J., Jun, J., & Arendt, S. W. (2015). Understanding customers' healthy food choices at casual dining restaurants: Using the Value–Attitude–Behavior model. *International Journal of Hospitality Management*, 48, 12-21.
- Kang, J., Jun, J., & Arendt, S. W. (2015). Understanding customers' healthy food choices at casual dining restaurants: Using the Value–Attitude–Behavior model. *International Journal of Hospitality Management*, 48, 12-21.
- Kant, A. K., & Graubard, B. I. (2004). Eating out in America, 1987–2000: Trends and nutritional correlates. *Preventive Medicine*, 38(2), 243-249.
- Kaur, S., Kaur, N., Siddique, K. H., & Nayyar, H. (2016). Beneficial elements for agricultural crops and their functional relevance in defence against stresses. *Archives of Agronomy and Soil Science*, 62(7), 905-920.
- Keast, R. S., & Costanzo, A. (2015). Is fat the sixth taste primary? Evidence and implications. *Flavour*, 4, 1-7.
- Kellershohn, J., Walley, K., & Vriesekoop, F. (2017). Healthier food choices for children through menu pricing. *British Food Journal*, 119(6), 1324-1336.

- Kerr, J., Frank, L., Sallis, J. F., Saelens, B., Glanz, K., & Chapman, J. (2012). Predictors of trips to food destinations. *International Journal of Behavioural Nutrition and Physical Activity*, 9, 1-10.
- Kestens, Y., Lebel, A., Daniel, M., Thériault, M., & Pampalon, R. (2010). Using experienced activity spaces to measure foodscape exposure. *Health & Place*, 16(6), 1094-1103.
- Khan, M., & Oyewol, P. O. (2014). African Americans' image attributes and preferences for ethnic or internal restaurants. *Journal of Foodservice Business Research*, 17, 161-178.
- Kim, E. J., Ellison, B., McFadden, B., & Prescott, M. P. (2021). Consumers' decisions to access or avoid added sugars information on the updated Nutrition Facts label. *PloS one*, 16(3), e0249355.
- Kim, H. J., Chung, S. J., Kim, K. O., Nielsen, B., Ishii, R., & O'Mahony, M. (2018). A cross-cultural study of acceptability and food pairing for hot sauces. *Appetite*, 123, 306-316.
- Kim, H., & Bachman, J. R. (2019). Examining customer perceptions of restaurant restroom cleanliness and their impact on satisfaction and intent to return. *Journal of Foodservice Business Research*, 22(2), 191-208.
- Kim, J., Lee, C., & Elias, T. (2015). Factors affecting information sharing in social networking sites amongst university students: Application of the knowledge-sharing model to social networking sites. *Online Information Review*, 39(3), 290-309.
- Kim, K. H., Kabir, E., & Kabir, S. (2015). A review on the human health impact of airborne particulate matter. *Environment International*, 74, 136-143.

- Kim, W. G., & Moon, Y. J. (2009). Customers' cognitive, emotional, and actionable response to the servicescape: A test of the moderating effect of the restaurant type. *International Journal of Hospitality Management*, 28(1), 144-156.
- Kim, Y. S., Hertzman, J., & Hwang, J. J. (2010). College students and quick-service restaurants: How students perceive restaurant food and services. *Journal of Foodservice Business Research*, 13(4), 346-359.
- Knapik, J. J., Redmond, J. E., Grier, T. L., & Sharp, M. A. (2018). Secular trends in the physical fitness of United States Army infantry units and infantry soldiers, 1976–2015. *Military Medicine*, 183(11-12), e414-e426.
- Knodel, L. V. (2019). *Canada: A look at the future*.
- Kolbe-Alexander, T. L., Buckmaster, C., Nossel, C., Dreyer, L., Bull, F., Noakes, T. D., & Lambert, E. V. (2008). Chronic disease risk factors, healthy days and medical claims in South African employees presenting for health risk screening. *BMC Public Health*, 8, 1-11.
- Kolodinsky, J., Harvey-Berino, J. R., Berlin, L., Johnson, R. K., & Reynolds, T. W. (2007). Knowledge of current dietary guidelines and food choices by college students: Better eaters have higher knowledge of dietary guidance. *Journal of the American Dietetic Association*, 107(8), 1409-1413.
- Konadu-Agyemang, K. (2001). A survey of housing conditions and characteristics in Accra, an African city. *Habitat International*, 25(1), 15-34.
- Köster, E. P. (2009). Diversity in the determinants of food choice: A psychological perspective. *Food Quality and Preference*, 20(2), 70-82.

- Kourouniotis, S., Keast, R. S. J., Riddell, L. J., Lacy, K., Thorpe, M. G., & Ciceralo, S. (2016). The importance of taste on dietary choice, behaviour and intake in a group of young adults. *Appetite*, 103, 1-7.
- Krauss, S. E. (2005). Research paradigms and meaning making: A primer. *The Qualitative Report*, 10(4), 758-770.
- Krešić, G., Liović, N., & Pleadin, J. (2019). Effects of menu labelling on students' food choice: a preliminary study. *British Food Journal*, 121(2), 479-491.
- Krølner, R., Rasmussen, M., Brug, J., Klepp, K. I., Wind, M., & Due, P. (2011). Determinants of fruit and vegetable consumption among children and adolescents: A review of the literature. Part II: qualitative studies. *International Journal of Behavioural Nutrition and Physical Activity*, 8, 1-38.
- Kubik, M. Y., Lytle, L., & Fulkerson, J. A. (2005). Fruits, vegetables, and football: findings from focus groups with alternative high school students regarding eating and physical activity. *Journal of Adolescent Health*, 36(6), 494-500.
- Kushi, L. H., Byers, T., Doyle, C., Bandera, E. V., McCullough, M., Gansler, T., ... & Thun, M. J. (2006). American Cancer Society Guidelines on Nutrition and Physical Activity for cancer prevention: Reducing the risk of cancer with healthy food choices and physical activity. *CA: A cancer Journal for Clinicians*, 56(5), 254-281.

- Lachat, C., Nago, E., Verstraeten, R., Roberfroid, D., Van Camp, J., & Kolsteren, P. (2012). Eating out of home and its association with dietary intake: A systematic review of the evidence. *Obesity Reviews*, 13(4), 329-346.
- Lake, A. A. (2018). Neighbourhood food environments: food choice, foodscapes and planning for health. *Proceedings of the Nutrition Society*, 77(3), 239-246.
- Lake, A. A., Townshend, T. G., & Burgoine, T. (2017). Obesogenic Environments Neighbourhood Food. *Public Health Nutrition*, 327.
- Lal, R. (2016). Soil health and carbon management. *Food and Energy Security*, 5(4), 212-222.
- Laureati, P., Xu, Y., Trevisan, M., Schalin, L., Mariani, I., Bellocco, R., ... & Carrero, J. J. (2020). Initiation of sodium polystyrene sulphonate and the risk of gastrointestinal adverse events in advanced chronic kidney disease: A nationwide study. *Nephrology Dialysis Transplantation*, 35(9), 1518-1526.
- Lawless, H. T., & Heymann, H. (2010). *Sensory evaluation of food: principles and practices*. Springer Science & Business Media.
- Lee, D. J., Sirgy, M. J., Larsen, V., & Wright, N. D. (2002). Developing a subjective measure of consumer well-being. *Journal of Macromarketing*, 22(2), 158-169.
- Lee, I., Kim, J., & Kim, J. (2005). Use contexts for the mobile internet: a longitudinal study monitoring actual use of mobile internet services. *International Journal of Human-Computer Interaction*, 18(3), 269-292.

- Lee, M. S., Huang, Y. C., Su, H. H., Lee, M. Z., & Wahlqvist, M. L. (2011). A simple food quality index predicts mortality in elderly Taiwanese. *The Journal of Nutrition, Health & Aging*, 15, 815-821.
- Lee, Y. C., & Wu, W. L. (2018). Factors in cyberbullying: The attitude-social influence-efficacy model. *Anales De Psicología/Annals of Psychology*, 34(2), 324-331.
- Lehtinen, A., & Kuorikoski, J. (2007). Computing the perfect model: Why do economists shun simulation? *Philosophy of Science*, 74(3), 304-329.
- Leng, G., Adan, R. A., Belot, M., Brunstrom, J. M., De Graaf, K., Dickson, S. L., & Smeets, P. A. (2017). The determinants of food choice. *Proceedings of the Nutrition Society*, 76(3), 316-327.
- Letarte, A., Dube, L., & Troche, V. (1997). Similarities and differences in affective and cognitive origins of food likings and dislikes. *Appetite*, 28(2), 115-129.
- Letarte, A., Dube, L., & Troche, V. (1997). Similarities and differences in affective and cognitive origins of food likings and dislikes. *Appetite*, 28(2), 115-129.
- Levitt, J. A., Zhang, P., DiPietro, R. B., & Meng, F. (2019). Food tourist segmentation: Attitude, behavioural intentions and travel planning behaviour based on food involvement and motivation. *International Journal of Hospitality & Tourism Administration*, 20(2), 129-155.
- Li, X. E., Jervis, S. M., & Drake, M. A. (2015). Examining extrinsic factors that influence product acceptance: a review. *Journal of Food Science*, 80(5), R901-R909.

- Light, A., & Miskelly, C. (2015). *Sharing economy vs sharing cultures? Designing for social, economic and environmental good.*
- Lin, M. S., Sharma, A., & Ouyang, Y. (2020). Role of signals in consumers' economic valuation of restaurant choices. *Journal of Hospitality & Tourism Research*, 44(7), 1080-1100.
- Lin, M. S., Sharma, A., & Ouyang, Y. (2020). Role of signals in consumers' economic valuation of restaurant choices. *Journal of Hospitality & Tourism Research*, 44(7), 1080-1100.
- Lin, Q., Zhao, S., Gao, D., Lou, Y., Yang, S., Musa, S. S., ... & He, D. (2020). A conceptual model for the coronavirus disease 2019 (COVID-19) outbreak in Wuhan, China with individual reaction and governmental action. *International Journal of Infectious Diseases*, 93, 211-216.
- Lin, Y. C. (2015). Are you a protean talent? The influence of protean career attitude, learning-goal orientation and perceived internal and external employability. *Career Development International*, 20(7), 753-772.
- Lindeman, M., & Stark, K. (1999). Pleasure, pursuit of health or negotiation of identity? Personality correlates of food choice motives among young and middle-aged women. *Appetite*, 33(1), 141-161.
- Lindeman, M., & Väänänen, M. (2000). Measurement of ethical food choice motives. *Appetite*, 34(1), 55-59.
- Line, N. D., & Hanks, L. (2020). A holistic model of the servicescape in fast casual dining. *International Journal of Contemporary Hospitality Management*, 32(1), 288-306.
- Liu, P., & Lee, Y. M. (2017). An investigation of restaurant food safety performance: A comparison between ethnic and nonethnic and chain and

- independent restaurants in Louisiana. *Journal of Foodservice Business Research*, 20(2), 204-217.
- Lovett, F. (2006). Rational choice theory and explanation. *Rationality and Society*, 18(2), 237-272.
- Lu, W., Addai, K. N., & Ng'ombe, J. N. (2021). Does the use of multiple agricultural technologies affect household welfare? Evidence from Northern Ghana. *Agrekon*, 60(4), 370-387.
- Lukasewycz, L. D., & Mennella, J. A. (2012). Lingual tactile acuity and food texture preferences among children and their mothers. *Food Quality and Preference*, 26(1), 58-66.
- Lusk, J. L. (2011). External validity of the food values scale. *Food Quality and Preference*, 22(5), 452-462.
- Lusk, J. L. (2019). Consumer beliefs about healthy foods and diets. *PloS one*, 14(10), e0223098.
- Lusk, J. L., & Briggeman, B. C. (2009). Food values. *American Journal of Agricultural Economics*, 91(1), 184-196.
- Lusk, J. L., & Briggeman, B. C. (2009). Food values. *American Journal of Agricultural Economics*, 91(1), 184-196.
- Maina, J. W. (2018). Analysis of the factors that determine food acceptability. *The Pharma Innovation*, 7(5, Part D), 253.
- Mak, A. H., Lumbers, M., Eves, A., & Chang, R. C. (2012). Factors influencing tourist food consumption. *International Journal of Hospitality Management*, 31(3), 928-936.

- Manippa, V., Padulo, C., Van der Laan, L. N., & Brancucci, A. (2017). Gender differences in food choice: effects of superior temporal sulcus stimulation. *Frontiers in Human Neuroscience*, 11, 597.
- Manzo, G. (2013). Political uncertainty, credit risk premium and default risk. *Credit Risk Premium and Default Risk (August 31, 2013)*.
- Marchiori, D., Waroquier, L., & Klein, O. (2011). Smaller food item sizes of snack foods influence reduced portions and caloric intake in young adults. *Journal of the American Dietetic Association*, 111(5), 727-731.
- Marchiori, D., Waroquier, L., & Klein, O. (2012). "Split them!" smaller item sizes of cookies lead to a decrease in energy intake in children. *Journal of Nutrition Education and Behaviour*, 44(3), 251-255.
- Marinelli, N., Simeone, M., & Scarpato, D. (2015). Does quality really matter? Variables that drive postmodern consumer choices. *Nutrition & Food Science*, 45(2), 255-269.
- Marinkovic, V., Senic, V., & Mimovic, P. (2015). Factors affecting choice and image of ethnic restaurants in Serbia. *British Food Journal*, 117(7), 1903-1920.
- Martinho, V. J., Bartkiene, E., Djekic, I., Tarcea, M., Barić, I. C., Černelič-Bizjak, M., ... & Guiné, R. P. (2022). Determinants of economic motivations for food choice: Insights for the understanding of consumer behaviour. *International Journal of Food Sciences and Nutrition*, 73(1), 127-139.
- Martins, Y., & Pliner, P. (1998). The development of the food motivation scale.

- Marty, L., de Lauzon-Guillain, B., Labesse, M., & Nicklaus, S. (2021). Food choice motives and the nutritional quality of diet during the COVID-19 lockdown in France. *Appetite*, *157*, 105005.
- Mas-Colell, A., Whinston, M. D., & Green, J. R. (1995). *Microeconomic theory* (Vol. 1). New York: Oxford University Press.
- Mauricio, R. A., Deliza, R., & Nassu, R. T. (2022). Consumers' attitudes toward the use of an edible coating for lamb meat according to label information. *Foods*, *11*(3), 323.
- McCluskey, J., & Swinnen, J. (2011). The media and food-risk perceptions: Science & Society Series on Food and Science. *EMBO reports*, *12*(7), 624-629.
- McCrickerd, K., & Forde, C. G. (2016). Sensory influences on food intake control: moving beyond palatability. *Obesity Reviews*, *17*(1), 18-29.
- McCrickerd, K., & Forde, C. G. (2016). Sensory influences on food intake control: moving beyond palatability. *Obesity Reviews*, *17*(1), 18-29.
- McEntee, J., & Agyeman, J. (2010). Towards the development of a GIS method for identifying rural food deserts: Geographic access in Vermont, USA. *Applied Geography*, *30*(1), 165-176.
- McGowan, J., Sampson, M., Salzwedel, D. M., Cogo, E., Foerster, V., & Lefebvre, C. (2016). PRESS peer review of electronic search strategies: 2015 guideline statement. *Journal of Clinical Epidemiology*, *75*, 40-46.
- McGuffin, L. E., Price, R. K., McCaffrey, T. A., Hall, G., Lobo, A., Wallace, J. M., & Livingstone, M. B. E. (2015). Parent and child perspectives on family out-of-home eating: a qualitative analysis. *Public Health Nutrition*, *18*(1), 100-111.

- McKay-Nesbitt, J., Manchanda, R. V., Smith, M. C., & Huhmann, B. A. (2011). Effects of age, need for cognition, and affective intensity on advertising effectiveness. *Journal of Business Research*, 64(1), 12-17.
- McKinnon, R. A., Reedy, J., Morrisette, M. A., Lytle, L. A., & Yaroch, A. L. (2009). Measures of the food environment: a compilation of the literature, 1990–2007. *American Journal of Preventive Medicine*, 36(4), S124-S133.
- Meiselman, H. L. (2003). A three-factor approach to understanding food quality: the product, the person and the environment. *Food Service Technology*, 3(3-4), 99-105.
- Meiselman, H. L., & Bell, R. (2003). Eating habits.
- Mela, D. J. (2001). Determinants of food choice: Relationships with obesity and weight control. *Obesity Research*, 9(S11), 249S-255S.
- Meng, J., Yao, Q., & Yu, Z. (2014). Particulate phosphorus speciation and phosphate adsorption characteristics associated with sediment grain size. *Ecological Engineering*, 70, 140-145.
- Mennell, J. M. (1992). *The musculoskeletal system: Differential diagnosis from symptoms and physical signs*. Jones & Bartlett Learning.
- Mennell, S. (1996). *All Manners of Food: Eating and taste in England and France from the middle ages to the present*. University of Illinois Press.
- Mensah, C. A., Gough, K. V., & Simon, D. (2018). Urban green spaces in growing oil cities: the case of Sekondi-Takoradi Metropolis, Ghana. *International Development Planning Review*, 40(4), 371-395.

- Mensah, C. A., Gough, K. V., & Simon, D. (2018). Urban green spaces in growing oil cities: The case of Sekondi-Takoradi Metropolis, Ghana. *International Development Planning Review*, 40(4), 371-395.
- Mensah, C., Agboka, J. A., & Azilla-Gbetor, E. M. (2017). Selection of traditional catering establishments in Ghana: Diners' perspectives. *Journal of Foodservice Business Research*, 20(4), 410-431.
- Meule, A., Reichenberger, J., & Blechert, J. (2018). Development and preliminary validation of the Salzburg emotional eating scale. *Frontiers in Psychology*, 9, 88.
- Michaelidou, N., Christodoulides, G., & Torova, K. (2012). Determinants of healthy eating: A cross-national study on motives and barriers. *International Journal of Consumer Studies*, 36(1), 17-22.
- Midi, H., Sarkar, S. K., & Rana, S. (2010). Collinearity diagnostics of binary logistic regression model. *Journal of Interdisciplinary Mathematics*, 13(3), 253-267.
- Millstone, E., & Lobstein, T. (2007). The PorGrow project: Overall cross-national results, comparisons and implications. *Obesity Reviews*, 8, 29-36.
- Montanari, M. (2006). *Food is culture*. Columbia University Press.
- Monteiro, C. A., Moubarac, J. C., Cannon, G., Ng, S. W., & Popkin, B. (2013). Ultra-processed products are becoming dominant in the global food system. *Obesity Reviews*, 14, 21-28.
- Monteleone, P., Mascagni, G., Giannini, A., Genazzani, A. R., & Simoncini, T. (2018). Symptoms of menopause—global prevalence, physiology and implications. *Nature Reviews Endocrinology*, 14(4), 199-215.

- Mooijman, M., Meindl, P., Oyserman, D., Monterosso, J., Dehghani, M., Doris, J. M., & Graham, J. (2018). Resisting temptation for the good of the group: Binding moral values and the moralization of self-control. *Journal of Personality and Social Psychology*, 115(3), 585.
- Moon, S. J. (2021). Investigating beliefs, attitudes, and intentions regarding green restaurant patronage: An application of the extended theory of planned behaviour with moderating effects of gender and age. *International Journal of Hospitality Management*, 92, 102727.
- Morton, L. W., & Blanchard, T. C. (2007). Starved for access: life in rural America's food deserts. *Rural Realities*, 1(4), 1-10.
- Moschis, G. P. (2012). Consumer behaviour in later life: Current knowledge, issues, and new directions for research. *Psychology & Marketing*, 29(2), 57-75.
- Muboko, N., Gandiwa, E., Muposhi, V., & Tarakini, T. (2016). Illegal hunting and protected areas: Tourist perceptions on wild animal poisoning in Hwange National Park, Zimbabwe. *Tourism Management*, 52, 170-172.
- Muñoz-Vilches, N. C., van Trijp, H. C., & Piqueras-Fiszman, B. (2019). The impact of instructed mental simulation on wanting and choice between vice and virtue food products. *Food Quality and Preference*, 73, 182-191.
- Muntanyola-Saura, D. (2014). A cognitive account of expertise: Why Rational Choice Theory is (often) a Fiction. *Theory & Psychology*, 24(1), 19-39.
- Murcott, A. (1983, January). Women's place: cookbooks' images of technique and technology in the British kitchen. In *Women's studies international forum* (Vol. 6, No. 1, pp. 33-39). Pergamon.

- Murcott, A. (1995). Social influences on food choice and dietary change: a sociological attitude. *Proceedings of the Nutrition Society*, 54(3), 729-735.
- Murcott, A. (1995). Social influences on food choice and dietary change: a sociological attitude. *Proceedings of the Nutrition Society*, 54(3), 729-735.
- Murnan, J., M. Sharma, and D. H.Lin. (2007). Predicting childhood obesity prevention behaviours using social cognitive theory: Children in China. *International Quarterly Community Health Education*, 26(1): 73–84.
- Namkung, Y., & Jang, S. (2017). Are consumers willing to pay more for green practices at restaurants? *Journal of Hospitality & Tourism Research*, 41(3), 329-356.
- Naylor, R., Steinfeld, H., Falcon, W., Galloway, J., Smil, V., Bradford, E., ... & Mooney, H. (2005). Losing the links between livestock and land. *Science*, 310(5754), 1621-1622.
- Nestle, M., & Wing, R. (2011). Food choices and public health: A policy perspective. *American Journal of Public Health*, 101(6), 1019-1023.
- Nevanperä, N. J., Hopsu, L., Kuosma, E., Ukkola, O., Uitti, J., & Laitinen, J. H. (2012). Occupational burnout, eating behavior, and weight among working women. *The American Journal of Clinical Nutrition*, 95(4), 934-943.
- Nguyen, S. P., Girgis, H., & Robinson, J. (2015). Predictors of children's food selection: The role of children's perceptions of the health and taste of foods. *Food Quality and Preference*, 40, 106-109.

- Nguyen, S. P., Girgis, H., & Robinson, J. (2015). Predictors of children's food selection: The role of children's perceptions of the health and taste of foods. *Food Quality and Preference*, 40, 106-109.
- Nicklaus, S., Boggio, V., Chabanet, C., & Issanchou, S. (2004). A prospective study of food preferences in childhood. *Food Quality and Preference*, 15(7-8), 805-818.
- Nie, C., & Zepeda, L. (2011). Lifestyle segmentation of US food shoppers to examine organic and local food consumption. *Appetite*, 57, 28-37.
- Njite, D., Njoroge, J., Parsa, H., Parsa, R., & van der Rest, J. P. (2015). Consumer patronage and willingness-to-pay at different levels of restaurant attributes: A study from Kenya. *Research in Hospitality Management*, 5(2), 171-180.
- Nystrand, B. T., & Olsen, S. O. (2020). Consumers' attitudes and intentions toward consuming functional foods in Norway. *Food Quality and Preference*, 80, 103827.
- O'Connor, D. B., Jones, F., Conner, M., McMillan, B., & Ferguson, E. (2008). Effects of daily hassles and eating style on eating behaviour. *Health Psychology*, 27(1S), S20.
- O'Donnell, M. A. (1995). *The effects of a nutrition intervention and resistance training program on body weight and dietary intake in AIDS patients*. Texas Woman's University.
- OECD/FAO (2017). *OECD-FAO Agricultural Outlook 2017-2026*. OECD Publishing, Paris. DOI: http://dx.doi.org/10.1787/agr_outlook-2017-en
- Okada, E. M. (2005). Justification effects on consumer choice of hedonic and utilitarian goods. *Journal of Marketing Research*, 42(1), 43-53.

- Okumus, B. (2021). Food tourism research: A perspective article. *Tourism Review*, 76(1), 38-42.
- Olsen, N. V., Menichelli, E., Sørheim, O., & Næs, T. (2012). Likelihood of buying healthy convenience food: An at-home testing procedure for ready-to-heat meals. *Food Quality and Preference*, 24(1), 171-178.
- Omari, R., & Frempong, G. (2016). Food safety concerns of fast-food consumers in urban Ghana. *Appetite*, 98, 49-54.
- Oostenbach, L. H., Slits, E., Robinson, E., & Sacks, G. (2019). Systematic review of the impact of nutrition claims related to fat, sugar and energy content on food choices and energy intake. *BMC Public Health*, 19, 1-11.
- Organization for Economic Cooperation and Development and the Food and Agriculture Organization of the United Nations (OECD-FAO). 2019. OECD-FAO Agricultural Outlook 2019–2028. OECD Agriculture Statistics (database). Available online: <http://www.agri-outlook.org/data/>.
- Orquin, J. L., & Kurzban, R. (2016). A meta-analysis of blood glucose effects on human decision making. *Psychological Bulletin*, 142(5), 546.
- Otterbring, T. (2017). Smile for a while: the effect of employee-displayed smiling on customer affect and satisfaction. *Journal of Service Management*, 28(2), 284-304.
- Otterbring, T. (2019). Time orientation mediates the link between hunger and hedonic choices across domains. *Food Research International*, 120, 124-129.

- Owusu, B. H. (2020). *Effect of training on employee performance at Ghana food and drugs authority, Accra-Ghana* (Doctoral dissertation, University of Cape Coast).
- Oyewole, P. (2007). Fast food marketing and the African-American consumers: The impact of socio-economic and demographic characteristics. *Journal of International Consumer Marketing*, 19(4), 75–108.
- Oyewole, P. (2013). The role of frequency of patronage and service quality of all-you-can-eat buffet restaurant: A perspective of socio-economic and demographic characteristics of African American consumers. *International Journal of Hospitality Management*, 34(Sep.), 202–213.
- Ozouf, M. (1991). *Festivals and the French revolution*. Harvard University Press.
- Pagano, U. (2023). Sociological explorations of food: Interconnections, aesthetics, and rituals in culinary practices. *Science & Philosophy*, 11(1), 140-157.
- Papier, K., Ahmed, F., Lee, P., & Wiseman, J. (2015). Stress and dietary behaviour among first-year university students in Australia: Sex differences. *Nutrition*, 31(2), 324-330.
- Park, S., & Sung, E. (2020). ‘You gotta have something to chew on’: perceptions of stress-induced eating and weight gain among office workers in South Korea. *Public Health Nutrition*, 24(3), 499-511.
- Park, Y. S., Konge, L., & Artino Jr, A. R. (2020). The positivism paradigm of research. *Academic Medicine*, 95(5), 690-694.
- Park, Y. S., Konge, L., & Artino Jr, A. R. (2020). The positivism paradigm of research. *Academic Medicine*, 95(5), 690-694.

- Paternoster, R., Jaynes, C. M., & Wilson, T. (2017). Rational choice theory and interest in the “fortune of others”. *Journal of Research in Crime and Delinquency*, 54(6), 847-868.
- Patterson, R. E., Kristal, A. R., Lynch, J. C., & White, E. (1995). Diet-cancer related beliefs, knowledge, norms, and their relationship to healthful diets. *Journal of Nutrition Education*, 27(2), 86-92.
- Paulus, K., & Reisch, A. M. (1980). The influence of temperature on the threshold values of primary tastes. *Chemical Senses*, 5(1), 11-21.
- Pechey, R., & Monsivais, P. (2016). Socioeconomic inequalities in the healthiness of food choices: Exploring the contributions of food expenditures. *Preventive Medicine*, 88, 203-209.
- Pechey, R., Monsivais, P., Ng, Y. L., & Marteau, T. M. (2015). Why don't poor men eat fruit? Socioeconomic differences in motivations for fruit consumption. *Appetite*, 84, 271-279.
- Pechey, R., Monsivais, P., Ng, Y. L., & Marteau, T. M. (2015). Why don't poor men eat fruit? Socioeconomic differences in motivations for fruit consumption. *Appetite*, 84, 271-279.
- Pelchat, M. L., & Rozin, P. (1982). The special role of nausea in the acquisition of food dislikes by humans. *Appetite*, 3(4), 341-351.
- Pender, M. P. (1987). Demyelination and neurological signs in experimental allergic encephalomyelitis. *Journal of Neuroimmunology*, 15(1), 11-24.
- Penney, T. L., Brown, H. E., Maguire, E. R., Kuhn, I., & Monsivais, P. (2015). Local food environment interventions to improve healthy food choice in adults: A systematic review and realist synthesis protocol. *BMJ Open*, 5(4), e007161.

- Penney, U., & Prior, C. (2014). Exploring the urban consumer's perception of local food. *International Journal of Retail & Distribution Management*, 42(7), 580-594.
- Pérez-Cueto, F. J., Verbeke, W., de Barcellos, M. D., Kehagia, O., Chryssochoidis, G., Scholderer, J., & Grunert, K. G. (2010). Food-related lifestyles and their association to obesity in five European countries. *Appetite*, 54(1), 156-162.
- Peters, K., & Remaud, P. H. (2020). Factors influencing consumer menu-item selection in a restaurant context. *Food Quality and Preference*, 82, 103887.
- Petre, A. A., & Mirea, I. A. (2023). Factors influencing food choice among Romanian university students. In *Foodscapes: Theory, History, and Current European Examples* (pp. 121-135). Wiesbaden: Springer Fachmedien Wiesbaden.
- Phan, U. T., & Chambers IV, E. (2016). Motivations for choosing various food groups based on individual foods. *Appetite*, 105, 204-211.
- Piacentini, M., Hibbert, S., & Al-Dajani, H. (2001). Diversity in deprivation: exploring the grocery shopping behaviour of disadvantaged consumers. *The International Review of Retail, Distribution and Consumer Research*, 11(2), 141-158.
- Pinker, S. (2018). *Enlightenment now: The case for reason, science, humanism, and progress*. Penguin UK.
- Pitt, E., Gallegos, D., Comans, T., Cameron, C., & Thornton, L. (2017). Exploring the influence of local food environments on food behaviours:

- A systematic review of qualitative literature. *Public Health Nutrition*, 20(13), 2393-2405.
- Pitte, J.-R. (2002). *French Gastronomy: The history and geography of a passion*. Columbia University Press.
- Pizam, A., & Mansfeld, Y. (1999). *Consumer behavior in travel and tourism*. Routledge.
- Pliner, P., Lahteenmaki, L., & Tuorila, H. (1998). Correlates of human food neophobia. *Appetite*, 30(1), 93-93.
- Poelman, M. P., Gillebaart, M., Schlinkert, C., Dijkstra, S. C., Derksen, E., Mensink, F., ... & de Vet, E. (2021). Eating behaviour and food purchases during the COVID-19 lockdown: A cross-sectional study among adults in the Netherlands. *Appetite*, 157, 105002.
- Ponnam, A., & Balaji, M. S. (2014). Matching visitation-motives and restaurant attributes in casual dining restaurants. *International Journal of Hospitality Management*, 37, 47-57.
- Popkin, B. M., Duffey, K., & Gordon-Larsen, P. (2005). Environmental influences on food choice, physical activity and energy balance. *Physiology & behaviour*, 86(5), 603-613.
- Popkin, B. M., Duffey, K., & Gordon-Larsen, P. (2005). Environmental influences on food choice, physical activity and energy balance. *Physiology & behaviour*, 86(5), 603-613.
- Powell, L. M., & Chaloupka, F. J. (2009). Food prices and obesity: Evidence and policy implications for taxes and subsidies. *The Milbank Quarterly*, 87(1), 229-257.

- Powell, P. K., Durham, J., & Lawler, S. (2019). Food choices of young adults in the United States of America: A scoping review. *Advances in Nutrition, 10*(3), 479-488.
- Preedy, V. R., Watson, R. R., & Martin, C. R. (Eds.). (2011). *Handbook of behaviour, food and nutrition*. Springer Science & Business Media.
- Prescott, J., Allen, S., & Stephens, L. (1993). Interactions between oral chemical irritation, taste and temperature. *Chemical Senses, 18*(4), 389-404.
- Presseau, J., Johnston, M., Johnston, D. W., Elovainio, M., Hrisos, S., Steen, N., ... & Eccles, M. P. (2014). Environmental and individual correlates of distress: Testing Karasek's Demand-Control model in 99 primary care clinical environments. *British Journal of Health Psychology, 19*(2), 292-310.
- Price, R. B., Rosen, D., Siegle, G. J., Ladouceur, C. D., Tang, K., Allen, K. B., ... & Silk, J. S. (2016). From anxious youth to depressed adolescents: Prospective prediction of 2-year depression symptoms via attentional bias measures. *Journal of Abnormal Psychology, 125*(2), 267.
- Price, S., Bray, J., & Brown, L. (2017). Enabling healthy food choices in the workplace: the canteen operators' perspective. *International Journal of Workplace Health Management, 10*(4), 318-331.
- Priorreschi, A., Munthali, R. J., Soepnel, L., Goldstein, J. A., Micklesfield, L. K., Aronoff, D. M., & Norris, S. A. (2017). Incidence and prevalence of type 2 diabetes mellitus with HIV infection in Africa: A systematic review and meta-analysis. *BMJ open, 7*(3), e013953.

- Pulos, E., & Leng, K. (2010). Evaluation of a voluntary menu-labeling program in full-service restaurants. *American Journal of Public Health, 100*(6), 1035-1039.
- Puoane, T., Matwa, P., Hughes, G., & Bradley, H. A. (2006). *Socio-cultural factors influencing food consumption patterns in the black African population in an urban township in South Africa.*
- Quevedo-Silva, F., Lima-Filho, D. D. O., & Fagundes, M. B. B. (2018). Dimensions of food choice process of older consumers in Brazil. *British Food Journal, 120*(5), 984-998.
- Raaheim, A. (1990). Marketing health and changing behavior. *Theoretical and Applied Aspects of Health Psychology. Harwood Academic, London,* 141-150.
- Raby Powers, A., Struempler, B. J., Guarino, A., & Parmer, S. M. (2005). Effects of a nutrition education program on the dietary behaviour and nutrition knowledge of second-grade and third-grade students. *Journal of School Health, 75*(4), 129-133.
- Ragasa, C., & Chapoto, A. (2017). Moving in the right direction? The role of price subsidies in fertilizer use and maize productivity in Ghana. *Food Security, 9*(2), 329-353.
- Ran, L., Li, Z., Ran, B., Cao, J., Zhao, Y., Shao, T., ... & Hou, J. (2022). Engineering single-atom active sites on covalent organic frameworks for boosting CO₂ photoreduction. *Journal of the American Chemical Society, 144*(37), 17097-17109.

- Randall, E., & Sanjur, D. (1981). Food preferences—their conceptualization and relationship to consumption. *Ecology of Food and Nutrition*, 11(3), 151-161.
- Randall, E., & Sanjur, D. (1981). Food preferences—their conceptualization and relationship to consumption. *Ecology of Food and Nutrition*, 11(3), 151-161.
- Ranganathan, T., Gaurav, S., & Singh, A. (2016). Demand for price insurance among farmers in India: A choice experiment-based approach. *Margin: The Journal of Applied Economic Research*, 10(2), 198-224.
- Rankin, A., Kuznesof, S., Frewer, L. J., Orr, K., Davison, J., de Almeida, M. D., & Stewart-Knox, B. (2017). Public perceptions of personalised nutrition through the lens of Social Cognitive Theory. *Journal of Health Psychology*, 22(10), 1233-1242.
- Rankin, A., Kuznesof, S., Frewer, L. J., Orr, K., Davison, J., de Almeida, M. D., & Stewart-Knox, B. (2017). Public perceptions of personalised nutrition through the lens of Social Cognitive Theory. *Journal of Health Psychology*, 22(10), 1233-1242.
- Rao, M., Afshin, A., Singh, G., & Mozaffarian, D. (2013). Do healthier foods and diet patterns cost more than less healthy options? A systematic review and meta-analysis. *BMJ open*, 3(12), e004277.
- Rathna Priya, T. S., Eliazar Nelson, A. R. L., Ravichandran, K., & Antony, U. (2019). Nutritional and functional properties of coloured rice varieties of South India: a review. *Journal of Ethnic Foods*, 6(1), 1-11.

- Redd, M., & De Castro, J. M. (1992). Social facilitation of eating: Effects of social instruction on food intake. *Physiology & Behaviour*, 52(4), 749-754.
- Rehm, C. D., Monsivais, P., & Drewnowski, A. (2015). Relation between diet cost and Healthy Eating Index 2010 scores among adults in the United States 2007–2010. *Preventive Medicine*, 73, 70-75.
- Renner, B., Sproesser, G., Strohbach, S., & Schupp, H. T. (2012). Why we eat what we eat. The Eating Motivation Survey (TEMS). *Appetite*, 59(1), 117-128.
- Renner, S. C., Baur, S., Possler, A., Winkler, J., Kalko, E. K., Bates, P. J., & Mello, M. A. (2012). Food preferences of winter bird communities in different forest types. *PloS one*, 7(12), e53121.
- Risvik, E., Rødbotten, M., & Olsen, N. V. (2006). *Cross-cultural dimensions in food choice*. Europe.
- Robinson, E., Thomas, J., Aveyard, P., & Higgs, S. (2014). What everyone else is eating: A systematic review and meta-analysis of the effect of informational eating norms on eating behaviour. *Journal of the Academy of Nutrition and Dietetics*, 114(3), 414-429.
- Robinson, T. N., Banda, J. A., Hale, L., Lu, A. S., Fleming-Milici, F., Calvert, S. L., & Wartella, E. (2017). Screen media exposure and obesity in children and adolescents. *Pediatrics*, 140(Supplement_2), S97-S101.
- Roininen, K., & Tuorila, H. (1999). Health and taste attitudes in the prediction of use frequency and choice between less healthy and more healthy snacks. *Food Quality and Preference*, 10(4-5), 357-365.

- Rolls, B. J., Rolls, E. T., Rowe, E. A., & Sweeney, K. (1981). Sensory specific satiety in man. *Physiology & behaviours*, 27(1), 137-142.
- Rolls, E. T. (1993). The neural control of feeding in primates. *Neurophysiology of Ingestion*, 6. 137-169
- Rolls, E. T., & Rolls, J. H. (1997). Olfactory sensory-specific satiety in humans. *Physiology & Behaviour*, 61(3), 461-473.
- Romagny, S., Ginon, E., & Salles, C. (2017). Impact of reducing fat, salt and sugar in commercial foods on consumer acceptability and willingness to pay in real tasting conditions: A home experiment. *Food Quality and Preference*, 56, 164-172.
- Romagny, S., Ginon, E., & Salles, C. (2017). Impact of reducing fat, salt and sugar in commercial foods on consumer acceptability and willingness to pay in real tasting conditions: A home experiment. *Food Quality and Preference*, 56, 164-172.
- Romanos-Nanclares, A., Zazpe, I., Santiago, S., Marín, L., Rico-Campà, A., & Martín-Calvo, N. (2018). Influence of parental healthy-eating attitudes and nutritional knowledge on nutritional adequacy and diet quality among preschoolers: the SENDO project. *Nutrients*, 10(12), 1875.
- Ronain, S. B., & Sam, G. S. (2017). Nanomaterials for In Vivo Imaging.
- Rosenheck, R. (2008). Fast food consumption and increased caloric intake: a systematic review of a trajectory towards weight gain and obesity risk. *Obesity Reviews*, 9(6), 535-547.
- Roudsari, A. H., Vedadhir, A., Amiri, P., Kalantari, N., Omidvar, N., Eini-Zinab, H., & Sadati, S. M. H. (2017). Psycho-socio-cultural determinants of

food choice: A qualitative study on adults in social and cultural context of Iran. *Iranian Journal of Psychiatry*, 12(4), 241.

Roudsari, A. H., Vedadhir, A., Amiri, P., Kalantari, N., Omidvar, N., Eini-Zinab, H., & Sadati, S. M. H. (2017). Psycho-socio-cultural determinants of food choice: A qualitative study on adults in social and cultural context of Iran. *Iranian Journal of Psychiatry*, 12(4), 241.

Rozin, P. (2006). The integration of biological, social, cultural, and psychological influences on food choice. *Handbook of Eating and Drinking*, 83-94.

Rozin, P. (2006). The integration of biological, social, cultural and psychological influences on food choice. In *The psychology of food choice* (pp. 19-39). Wallingford UK: Cabi.

Rozin, P. (2006). The integration of biological, social, cultural, and psychological influences on food choice. *Handbook of Eating and Drinking*, 83-94.

Rozin, P., & Schulkin, J. (1990). Food selection. In E. M. Stricker (Ed.), *Handbook of behaviour neurobiology: Vol. 10. Food and water intake* (pp. 297-328). New York: Plenum Press.

Rozin, P., & Zellner, D. A. (1985). The role of Pavlovian conditioning in the acquisition of food likes and dislikes. *Annals of the New York Academy of Sciences*, 443, 189–202.

Ruijschop, R. M., Zijlstra, N., Boelrijk, A. E., Dijkstra, A., Burgering, M. J., de Graaf, C., & Westerterp-Plantenga, M. S. (2011). Effects of bite size and duration of oral processing on retro-nasal aroma release-features

- contributing to meal termination. *British Journal of Nutrition*, 105(2), 307-315.
- Running, C. A., Craig, B. A., & Mattes, R. D. (2015). Oleogustus: The unique taste of fat. *Chemical senses*, 40(7), 507-516.
- Ryu, K., Han, H., & Jang, S. S. (2010). Relationships among hedonic and utilitarian values, satisfaction, and behavioral intentions in the fast-casual restaurant industry. *International Journal of Contemporary Hospitality Management*, 22(3), 416-432.
- Sagastume, D., Siero, I., Mertens, E., & Peñalvo, J. L. (2022). Cardiometabolic profile and outcomes in migrant populations: A review of comparative evidence from migrants in Europe in relation to their country of origin. *Current Cardiology Reports*, 24(12), 1799-1810.
- Sands, S., Ferraro, C., Campbell, C., & Pallant, J. (2016). Segmenting multichannel consumers across search, purchase and after-sales. *Journal of Retailing and Consumer Services*, 33, 62-71.
- Sands, S., Ferraro, C., Campbell, C., Kietzmann, J., & Andonopoulos, V. V. (2020). Who shares? Profiling consumers in the sharing economy. *Australasian Marketing Journal*, 28(3), 22-33.
- Saraiva, A., Carrascosa, C., Ramos, F., Raheem, D., & Raposo, A. (2022). Agave syrup: Chemical analysis and nutritional profile, applications in the food industry and health impacts. *International Journal of Environmental Research and Public Health*, 19(12), 7022.
- Saras, T. (2023). *Ginseng Revealed: Unveiling the Secrets of Nature's Energizing Herb*. Tiram Media.

- Sarkodie, N. A., Commey, V., & Mohamed, B. (2022). Determinant factors of consumers choice of formal full-service restaurants in Ghana. *Journal of Hospitality Management and Tourism*, 13(2), 38-47.
- Satia, J. A., Kristal, A. R., Curry, S., & Trudeau, E. (2001). Motivations for healthful dietary change. *Public Health Nutrition*, 4(5), 953-959.
- Saunders, M., Lewis, P. and Thornhill, A. (2012) *Research methods for business students*. 6th Edition. Edinburgh Gate, Harlow, England: Pearson Education Limited.
- Savelli, E., Murmura, F., Liberatore, L., Casolani, N., & Bravi, L. (2017). Food habits and attitudes towards food quality among young students. *International Journal of Quality and Service Sciences*, 9(3/4), 456-468.
- Scaglioni, S., Salvioni, M., & Galimberti, C. (2008). Influence of parental attitudes in the development of children eating behaviour. *British Journal of Nutrition*, 99(S1), S22-S25.
- Scheibehenne, B., Miesler, L., & Todd, P. M. (2007). Fast and frugal food choices: Uncovering individual decision heuristics. *Appetite*, 49(3), 578-589.
- Scheiner, E. (2006). *Democracy without competition in Japan: Opposition failure in a one-party dominant state*. Cambridge University Press.
- Schjøll, A., & Alfnes, F. (2017). Eliciting consumer preferences for credence attributes in a fine-dining restaurant. *British Food Journal*, 119(3), 575-586.
- Scholten, H., Van der Doef, M., Maes, S., & Sachtleven, H. (1994). Gezonde voeding, een goede keus": onderzoek naar de effecten van een

voedingsvoorlichtingsproject [" Healthy food, a good choice": A study on the effects of a food education project]. *Gedrag en Gezondheid*, 22(1), 44-51.

Schwartz, M. S. (2005). Universal moral values for corporate codes of ethics. *Journal of Business Ethics*, 59, 27-44.

Scott, C. L., Haycraft, E., & Plateau, C. R. (2019). Teammate influences and relationship quality are associated with eating and exercise psychopathology in athletes. *Appetite*, 143, 104404.

Searchinger, T., Hanson, C., Ranganathan, J., Lipinski, B., Waite, R., Winterbottom, R., ... & Ari, T. B. (2014). *Creating a sustainable food future. A menu of solutions to sustainably feed more than 9 billion people by 2050. World resources report 2013-14: interim findings* (Doctoral dissertation, World Resources Institute (WRI); World Bank Groupe-Banque Mondiale; United Nations Environment Programme (UNEP); United Nations Development Programme (UNDP); Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD); Institut National de la Recherche Agronomique (INRA)).

Searchinger, T., Hanson, C., Ranganathan, J., Lipinski, B., Waite, R., Winterbottom, R., ... & Heimlich, R. (2013). The great balancing act.

Sedgwick, P. (2014). Retrospective cohort studies: Advantages and disadvantages. *Bmj*, 348.

Sedgwick, P. (2014). Unit of observation versus unit of analysis. *Bmj*, 348.

- Seo, C. L., & Lee, J. H. (2021). Attentional bias to high-calorie food in binge eaters with high shape/weight concern. *Frontiers in Psychiatry*, 12, 606296.
- Seo, S., Yun, N., & Kim, O. Y. (2017). Destination food image and intention to eat destination foods: a view from Korea. *Current Issues in Tourism*, 20(2), 135-156.
- Seuvre, A. M., Diaz, M. D. L. A. E., Cayot, P., & Voilley, A. (2004). Influence of the composition and the structure of different media on the release of aroma compounds. *Le Lait*, 84(3), 305-316.
- Shaw, D. M. (2006). *Trace elements in magmas: A theoretical treatment*. Cambridge University Press.
- Shepherd, R. G. (1989). Correlations of permeability and grain size. *Groundwater*, 27(5), 633-638.
- Shepherd, T. G. (1985). Time development of small disturbances to plane Couette flow. *Journal of the Atmospheric Sciences*, 42(17), 1868-1872.
- Shepherd, T. G. (1990). Symmetries, conservation laws, and Hamiltonian structure in geophysical fluid dynamics. In *Advances in Geophysics* (Vol. 32, pp. 287-338). Elsevier.
- Shetu, S. N. (2021). Factors influencing on consumers' fast-food consumption preferences: An empirical study on Facebook users in Dhaka city, Bangladesh. *International Journal of Business and Technopreneurship*, 11(1), 13-24.
- Shin, A., Surkan, P. J., Coutinho, A. J., Suratkar, S. R., Campbell, R. K., Rowan, M., ... & Gittelsohn, J. (2015). Impact of Baltimore Healthy Eating Zones: an environmental intervention to improve diet among African

- American youth. *Health Education & Behaviour*, 42(1_suppl), 97S-105S.
- Shin, D. H. (2009). Towards an understanding of the consumer acceptance of mobile wallet. *Computers in Human Behaviour*, 25(6), 1343-1354.
- Shipman, D., & Durmus, B. (2017). *The effect of culture on food consumption; a case of special religious days in Turkey*.
- Short, A., Guthman, J., & Raskin, S. (2007). Food deserts, oases, or mirages? Small markets and community food security in the San Francisco Bay Area. *Journal of Planning Education and Research*, 26(3), 352-364.
- Siegrist, M., & Cousin, M. E. (2009). Expectations influence sensory experience in a wine tasting. *Appetite*, 52(3), 762-765.
- Siegrist, M., Shi, J., Giusto, A., & Hartmann, C. (2015). Worlds apart. Consumer acceptance of functional foods and beverages in Germany and China. *Appetite*, 92, 87-93.
- Siemering, G. (2004). *Aquatic pesticide monitoring program phase 2 (2003) Monitoring Project Report*. San Francisco Estuary Institute.
- Skinner, J. D., Carruth, B. R., Bounds, W., & Ziegler, P. J. (2002). Children's food preferences: A longitudinal analysis. *Journal of the American Dietetic Association*, 102(11), 1638-1647.
- Skrynka, J., & Vincent, B. T. (2019). Hunger increases delay discounting of food and non-food rewards. *Psychonomic Bulletin & Review*, 26(5), 1729-1737.
- Smallwood, J. J., & Deacon, C. (2015, September). *Construction camps in building and civil engineering construction*. Presented at the

International Conference on Infrastructure Development and Investment
Strategies for Africa, Livingstone, Zambia.

Smith, G. (2009). *Democratic innovations: Designing institutions for citizen participation*. Cambridge University Press.

Sobal, J., & Bisogni, C. A. (2009). Constructing food choice decisions. *Annals of Behavioural Medicine*, 38(suppl_1), s37-s46.

Sobal, J., Bisogni, C. A., & Jastran, M. (2014). Food choice is multifaceted, contextual, dynamic, multilevel, integrated, and diverse. *Mind, Brain, and Education*, 8(1), 6-12.

Sobal, J., Bisogni, C. A., Devine, C. M., & Jastran, M. (2006). A conceptual model of the food choice process over the life course. In *The psychology of food choice* (pp. 1-18). Wallingford UK: Cabi.

Sobal, J., Bisogni, C. A., Devine, C. M., & Jastran, M. (2006). A conceptual model of the food choice process over the life course. In *The Psychology of Food Choice* (pp. 1-18). Wallingford UK: Cabi.

Solomon, S. (2006). *Gardening when it counts: Growing food in hard times* (Vol. 5). New Society Publisher.

Sosa, M., Cardinal, P., Contarini, A., & Hough, G. (2015). Food choice and emotions: Comparison between low and middle-income populations. *Food Research International*, 76, 253-260.

Spang, R. L. (2000). *The invention of the restaurant: Paris and modern gastronomic culture*. Harvard University Press.

Spence, C. (2015). On the psychological impact of food colour. *Flavour*, 4, 1-16.

- Spence, C. (2016). Gastrodiplomacy: Assessing the role of food in decision-making. *Flavour*, 5(1), 4.
- Spinelli, D., Benedetto, F., Donato, R., Piffaretti, G., Marrocco-Trischitta, M. M., Patel, H. J., ... & Trimarchi, S. (2018). Current evidence in predictors of aortic growth and events in acute type B aortic dissection. *Journal of Vascular Surgery*, 68(6), 1925-1935.
- Spitzer, L., & Rodin, J. (1981). Human eating behaviour: A critical review of studies in normal weight and overweight individuals. *Appetite*, 2(4), 293-329.
- Sproesser, G., Klusmann, V., Schupp, H. T., & Renner, B. (2017). Self-other differences in perceiving why people eat what they eat. *Frontiers in Psychology*, 8, 209.
- Steenkamp, J. B. E. (1997). Dynamics in consumer behaviour with respect to agricultural and food products. In *Agricultural marketing and consumer behaviour in a changing world* (pp. 143-188). Boston, MA: Springer US.
- Steenkamp, J. B. E. M. (1993). Food consumption behaviour. *European Review of Agricultural Economics*, 20(3), 357-371.
- Stemn, E., & Agyapong, E. (2014). Assessment of urban expansion in the Sekondi-Takoradi Metropolis of Ghana using remote-sensing and GIS approach. *International Journal of Science and Technology*, 3(8), 452-460.
- Stephoe, A., & Wardle, J. (1999). Motivational factors as mediators of socioeconomic variations in dietary intake patterns. *Psychology & Health*, 14(3), 391-402.

- Steptoe, A., Pollard, T. M., & Wardle, J. (1995). Development of a measure of the motives underlying the selection of food: The food choice questionnaire. *Appetite*, 25(3), 267-284.
- Steptoe, A., Pollard, T. M., & Wardle, J. (1995). Development of a measure of the motives underlying the selection of food: The food choice questionnaire. *Appetite*, 25(3), 267-284.
- Stevenson, A. (Ed.). (2010). *Oxford dictionary of English*. Oxford University Press, USA.
- Stierand, M. B., & Wood, R. C. (2012). Reconceptualising the commercial meal experience in the hospitality industry. *Journal of Hospitality and Tourism Management*, 19, e14.
- Stolz, J. (2009). Explaining religiosity: Towards a unified theoretical model
1. *The British Journal of Sociology*, 60(2), 345-376.
- Stone, L. J., & Pangborn, R. M. (1990). Preferences and intake measures of salt and sugar, and their relation to personality traits. *Appetite*, 15(1), 63-79.
- Stroebele, N., & De Castro, J. M. (2004). Effect of ambience on food intake and food choice. *Nutrition*, 20(9), 821-838.
- Strugnell, C. (1997). Colour and its role in sweetness perception. *Appetite*, 28, 85.
- Stunkard, A. J., & Messick, S. (1985). The three-factor eating questionnaire to measure dietary restraint, disinhibition and hunger. *Journal of Psychosomatic Research*, 29(1), 71-83.

- Su, L., Hsu, M. K., & Swanson, S. (2017). The effect of tourist relationship perception on destination loyalty at a world heritage site in China: The mediating role of overall destination satisfaction and trust. *Journal of Hospitality & Tourism Research*, 41(2), 180-210.
- Su, Y. (2015). Reflections on local specialities and gastronomic tourism. *Chinese Studies*, 4(1), 15-19.
- Sukkwai, S., Kijroongrojana, K., Chokumnoyporn, N., Sriwattana, S., Torrico, D. D., Pujols, K. D., & Prinyawiwatkul, W. (2018). A salt on the senses. *Food Science & Technology*, 32(2), 26-29.
- Szakály, Z., Szente, V., Kövér, G., Polereczki, Z., & Szigeti, O. (2012). The influence of lifestyle on health behaviours and preference for functional foods. *Appetite*,
- Tan, H. S. G., Fischer, A. R., Tinchin, P., Stieger, M., Steenbekkers, L. P. A., & Van Trijp, H. C. (2015). Insects as food: Exploring cultural exposure and individual experience as determinants of acceptance. *Food Quality and Preference*, 42, 78-89.
- Tan, N. D., & Hung, L. X. (2006). On colourings of split graphs. *Acta Mathematica Vietnammica*, 31(3), 195-204.
- Tangari, A. H., Burton, S., Howlett, E., Cho, Y. N., & Thyroff, A. (2010). Weighing in on fast food consumption: The effects of meal and calorie disclosures on consumer fast food evaluations. *Journal of Consumer Affairs*, 44(3), 431-462.

- Tauferova, A., Tremlova, B., Bednar, J., Golian, J., Zidek, R., & Vietoris, V. (2015). Determination of ketchup sensory texture acceptability and examination of determining factors as a basis for product optimization. *International journal of food properties*, 18(3), 660-669.
- Taylor, W. J., & Verma, R. (2010). *Customer preferences for restaurant brands, cuisine, and food court configurations in shopping centers*.
- Thompson, B. (2004). Exploratory and confirmatory factor analysis: Understanding concepts and applications. *Washington, DC*, 10694(000), 3.
- Thompson, J. N. (1988). Coevolution and alternative hypotheses on insect/plant interactions. *Ecology*, 69(4), 893-895.
- Tian, D., Hao, S., Mu, W., Shi, J., & Feng, J. (2022). Chinese consumers' selection of wine purchasing channels: influence of demographic characteristics, perceived value factors, social factors and wine knowledge. *British Food Journal*, 124(11), 3522-3539.
- Tiggemann, M., & Zaccardo, M. (2018). 'Strong is the new skinny': A content analysis of# fitspiration images on Instagram. *Journal of Health Psychology*, 23(8), 1003-1011.
- Tilman, D., & Clark, M. (2014). Global diets link environmental sustainability and human health. *Nature*, 515(7528), 518-522.
- Tiwary, G., Gangopadhyay, P. K., Biswas, S., Nayak, K., Chatterjee, M. K., Chakraborty, D., & Mukherjee, S. (2012). Socio-economic status of workers of building construction industry. *Indian Journal of Occupational and Environmental Medicine*, 16(2), 66-71.

- Torres, S. J., & Nowson, C. A. (2007). Relationship between stress, eating behaviour, and obesity. *Nutrition*, 23(11-12), 887-894.
- Torrico, D. D., Fuentes, S., Viejo, C. G., Ashman, H., & Dunshea, F. R. (2019). Cross-cultural effects of food product familiarity on sensory acceptability and non-invasive physiological responses of consumers. *Food Research International*, 115, 439-450.
- Tsenkova, V., Boylan, J. M., & Ryff, C. (2013). Stress eating and health. Findings from MIDUS, a national study of US adults. *Appetite*, 69, 151-155.
- Uccula, A., & Nuvoli, G. (2017). Body perception and meal type across age and gender on a Mediterranean island (Sardinia). *Psychology, Health & Medicine*, 22(10), 1210-1216.
- Vabø, M., & Hansen, H. (2014). The relationship between food preferences and food choice: a theoretical discussion. *International Journal of Business and Social Science*, 5(7).
- van Buul, V. J., Bolman, C. A., Brouns, F. J., & Lechner, L. (2017). Back-of-pack information in substitutive food choices: A process-tracking study in participants intending to eat healthy. *Appetite*, 116, 173-183.
- van Der Veer, L. (2012). Real Food from Virtual Shops: A Case Study from the Netherlands. *Eur. Food & Feed L. Rev.*, 7, 3.
- van Strien, T., Cebolla, A., Etchemendy, E., Gutierrez-Maldonado, J., Ferrer-Garcia, M., Botella, C., & Baños, R. (2013). Emotional eating and food intake after sadness and joy. *Appetite*, 66, 20-25.

- Van Strien, T., Rookus, M. A., Bergers, G. P., Frijters, J. E., & Defares, P. B. (1986). Life events, emotional eating and change in body mass index. *International Journal of Obesity*, 10(1), 29-35.
- Van Westering, J. (Ed.). (1999). *Heritage and Gastronomy: The Pursuit of the "New" Tourist*. International Thomson Business Press.
- Vanany, I., Soon, J. M., Maryani, A., & Wibawa, B. M. (2020). Determinants of halal-food consumption in Indonesia. *Journal of Islamic Marketing*, 11(2), 507-521.
- Vartanian, L. R. (2015). Impression management and food intake. Current directions in research. *Appetite*, 86, 74-80.
- Vartanian, L. R., Schwartz, M. B., & Brownell, K. D. (2007). Effects of soft drink consumption on nutrition and health: A systematic review and meta-analysis. *American Journal of Public Health*, 97(4), 667-675.
- Veeck, A. (2010). Encounters with extreme foods: Neophilic/neophobic tendencies and novel foods. *Journal of Food Products Marketing*, 16(2), 246-260.
- Ver Ploeg, M., Breneman, V., Dutko, P., Williams, R., Snyder, S., Dicken, C., & Kaufman, P. (2012). Access to affordable and nutritious food: Updated estimates of distance to supermarkets using 2010 data.
- Verbeke, W. (2008). Impact of communication on consumers' food choices. *Proceedings of the Nutrition Society*, 67(3), 281-288.
- Verbeke, W. (2008). Impact of communication on consumers' food choices. *Proceedings of the Nutrition Society*, 67(3), 281-288.

- Verstraeten, R., Van Royen, K., Ochoa-Aviles, A., Penafiel, D., Holdsworth, M., Donoso, S., ... & Kolsteren, P. (2014). A conceptual framework for healthy eating behaviour in Ecuadorian adolescents: A qualitative study. *PloS one*, 9(1), e87183.
- Vilaro, M. J., Barnett, T. E., Watson, A. M., Merten, J. W., & Mathews, A. E. (2017). Weekday and weekend food advertising varies on children's television in the USA but persuasive techniques and unhealthy items still dominate. *Public Health*, 142, 22-30.
- Wadhera, D., & Capaldi-Phillips, E. D. (2014). A review of visual cues associated with food-on-food acceptance and consumption. *Eating behaviours*, 15(1), 132-143.
- Wądołowska, L., Babicz-Zielińska, E., & Czarnocińska, J. (2008). Food choice models and their relation with food preferences and eating frequency in the Polish population: POFPRES study. *Food Policy*, 33(2), 122-134.
- Wahyuni, E. T. (2011). The accountant's perceptions of the IFRS convergence plan in Indonesia. *Jurnal Reviu Akuntansi dan Keuangan*, 1(2), 85-96.
- Walker, J. R. (2021). *The restaurant: From concept to operation*. John Wiley & Sons.
- Walker, R. E., Block, J., & Kawachi, I. (2012). Do residents of food deserts express different food-buying preferences compared to residents of food oases? A mixed-methods analysis. *International Journal of Behavioural Nutrition and Physical Activity*, 9, 1-13.

- Walker, R. E., Block, J., & Kawachi, I. (2012). Do residents of food deserts express different food buying preferences compared to residents of food oases? A mixed-methods analysis. *International Journal of Behavioural Nutrition and Physical Activity*, 9, 1-13.
- Walker, R. E., Fryer, C. S., Butler, J., Keane, C. R., Kriska, A., & Burke, J. G. (2011). Factors influencing food buying practices in residents of a low-income food desert and a low-income food oasis. *Journal of Mixed Methods Research*, 5(3), 247-267.
- Wallis, D. J., & Hetherington, M. M. (2009). Emotions and eating. Self-reported and experimentally induced changes in food intake under stress. *Appetite*, 52(2), 355-362.
- Wang, X. T., & Dvorak, R. D. (2010). Sweet future: Fluctuating blood glucose levels affect future discounting. *Psychological Science*, 21(2), 183-188.
- Wansink, B. (2004). Consumer reactions to food safety crises. *Advances in Food and Nutrition Research*, 48.
- Wansink, B., & Chandon, P. (2006). Can “low-fat” nutrition labels lead to obesity? *Journal of Marketing Research*, 43(4), 605-617.
- Wardlaw, G. M. & Smith, A. M. (2009). *Contemporary nutrition* (8th Ed.). New York, USA: McGraw-Hill Companies Inc
- Wardle, J., Parmenter, K., & Waller, J. (2000). Nutrition knowledge and food intake. *Appetite*, 34(3), 269-275.
- Waterlander, W. E., de Boer, M. R., Schuit, A. J., Seidell, J. C., & Steenhuis, I. H. (2013). Price discounts significantly enhance fruit and vegetable purchases when combined with nutrition education: A randomized

- controlled supermarket trial. *The American Journal of Clinical Nutrition*, 97(4), 886-895.
- Wei, S. T., Ou, L. C., Luo, M. R., & Hutchings, J. B. (2012). Optimisation of food expectations using product colour and appearance. *Food Quality and Preference*, 23(1), 49-62.
- Wei, W., Miao, L., & Huang, Z. J. (2013). Customer engagement behaviours and hotel responses. *International Journal of Hospitality Management*, 33, 316-330.
- Wethington, E., & Johnson-Askew, W. L. (2009). Contributions of the life course perspective to research on food decision-making. *Annals of Behavioural Medicine*, 38(suppl_1), s74-s80.
- White, S., Park, Y. S., Israel, T., & Cordero, E. D. (2009). Longitudinal evaluation of peer health education on a college campus: Impact on health behaviours. *Journal of American College Health*, 57(5), 497-506.
- Whitney, E. & Rolfes, S. R. (2008). *Understanding Nutrition*. 11th ed. Belmont-Thomson
- Wilcox, K., Vallen, B., Block, L., & Fitzsimons, G. J. (2009). Vicarious goal fulfilment: When the mere presence of a healthy option leads to an ironically indulgent decision. *Journal of Consumer Research*, 36(3), 380-393.
- Wilson, N. (2010). Social creativity: Re-qualifying the creative economy. *International Journal of Cultural Policy*, 16(3), 367-381.
- Wilson, N. (2010). Social creativity: Re-qualifying the creative economy. *International Journal of Cultural Policy*, 16(3), 367-381.

- World Bank. (2018). *World Development Report 2019: The changing nature of work*. The World Bank.
- World Health Organization. (2006). *The world health report 2006: Working together for health*. World Health Organization.
- World Health Organization. (2017). WHO model list of essential medicines, 20th list (March 2017, amended August 2017).
- Worsley, A. (2002). Nutrition knowledge and food consumption: can nutrition knowledge change food behaviour? *Asia Pacific Journal of Clinical Nutrition*, 11, S579-S585.
- Wrigley, N., Warm, D., Margetts, B., & Lowe, M. (2004). The Leeds “food deserts” intervention study: what the focus groups reveal. *International Journal of Retail & Distribution Management*, 32(2), 123-136.
- Xue, H., Wu, Y., Wang, X., & Wang, Y. (2016). Time trends in fast food consumption and its association with obesity among children in China. *PLoS One*, 11(3), e0151141.
- Yau, Y. H., & Potenza, M. N. (2013). Stress and eating behaviours. *Minerva endocrinologica*, 38(3), 255.
- Ye, J. (2018). Multiple attribute decision-making methods based on the expected value and the similarity measure of hesitant neutrosophic linguistic numbers. *Cognitive Computation*, 10, 454-463.
- Yeomans, M. R., & Chambers, L. (2011). Satiety-relevant sensory qualities enhance the satiating effects of mixed carbohydrate-protein preloads. *The American Journal of Clinical Nutrition*, 94(6), 1410-1417.

- Yi, S., Zhao, J., & Joung, H. W. (2018). Influence of price and brand image on restaurant customers' restaurant selection attribute. *Journal of Foodservice Business Research*, 21(2), 200-217.
- You, J. S., Sung, M. J., & Chang, K. J. (2009). Evaluation of 8-week body weight control program including sea tangle (*Laminaria japonica*) supplementation in Korean female college students. *Nutrition Research and Practice*, 3(4), 307-314.
- Youn, H., & Kim, J. H. (2017). Effects of ingredients, names and stories about food origins on perceived authenticity and purchase intentions. *International Journal of Hospitality Management*, 63, 11-21.
- Zeinstra, G. G., Koelen, M. A., Kok, F. J., & De Graaf, C. (2010). The influence of preparation method on children's liking for vegetables. *Food Quality and Preference*, 21(8), 906-914.
- Zenk, S. N., Odoms-Young, A. M., Dallas, C., Hardy, E., Watkins, A., Hoskins-Wroten, J., & Holland, L. (2011). "You have to hunt for the fruits, the vegetables": environmental barriers and adaptive strategies to acquire food in a low-income African American neighbourhood. *Health Education & Behaviour*, 38(3), 282-292.
- Zhao, J., Wang, X., Zhang, H., & Zhao, R. (2021). Rational choice theory applied to an explanation of juvenile offender decision-making in the Chinese setting. *International Journal of Offender Therapy and Comparative Criminology*, 65(4), 434-457.

- Zhou, N. (2024). Perceived parental career expectation and adolescent career development: The mediating role of adolescent career-planning and goal-setting self-efficacy and the moderating role of perceived parent–adolescent career congruence. *Journal of Counselling Psychology*.
- Zijlstra, N., Bukman, A. J., Mars, M., Stafleu, A., Ruijschop, R. M., & de Graaf, C. (2011). Eating behaviour and retro-nasal aroma release in normal-weight and overweight adults: A pilot study. *British Journal of Nutrition*, 106(2), 297-306.
- Zou, P., & Liu, J. (2019). How nutrition information influences online food sales. *Journal of the Academy of Marketing Science*, 47, 1132-1150.

APPENDIX

QUESTIONNAIRE

UNIVERSITY OF CAPE COAST

DEPARTMENT OF HOSPITALITY & TOURISM MANAGEMENT

ANALYSING CONSUMER FOOD CHOICES: A STUDY OF

RESTAURANTS IN TAKORADI

Dear Sir/ Madam,

This study is for a thesis by a PhD student at the Department of Hospitality and Tourism Management, University of Cape Coast. I humbly request for your participation in this study which seeks to “*assess the food choice of restaurant consumers in Takoradi*”. This study is purely an academic exercise and your anonymity and confidentiality of the responses provided is assured. Your responses to the questions below are important to the outcome of this study. If you agree to participate, filling the questionnaire will take about 15-20 minutes to complete. In case of any difficulty in responding to the questionnaire, please do not hesitate to ask. Thank you.

a. Have you participated in this study before?

OFFICIAL USE ONLY			
01	DATE:	04	INSTRUMENT ID:
02	TIME:	05	RESTAURANT ID:

SECTION I: RESTAURANT SELECTION FACTORS

1. How long have you stayed in Takoradi?
2. Is this your most preferred restaurant in Takoradi? i. Yes [] ii. No []
3. If no, state your most preferred restaurant?.....
4. How often do you visit this restaurant?.....

5. On the average, how many hours do you spend when you visit this restaurant in a day?.....
6. What are your main reasons for eating out in this restaurant? (Tick all that apply)
- i. Everyday Dining routine/ Quick meal []
 - ii. Business meal []
 - iii. Date night []
 - iv. Family/ friends []
 - v. Special Occasion []
 - vi. Other, specify;
7. What meal do you usually eat out in this restaurant? (Tick all that apply)
- i. Breakfast []
 - ii. Brunch []
 - iii. Lunch []
 - iv. Mid-afternoon []
 - v. Dinner []
8. In whose company do you eat these meals? (Tick up to 3)
- i. Alone []
 - ii. Partner []
 - iii. Family/ Child(ren) []
 - iv. Friends []
 - v. Work colleagues []
 - vi. Other, specify.....
9. How much do you typically spend on food when you eat out?
- i. Less than ₵25 []
 - ii. ₵26-₵50 []
 - iii. ₵56-₵75 []
 - iv. ₵76-₵100 []
 - v. More than ₵100 []
10. Please, rate the extent to which the following factors influence your choice of this restaurant on a 4-point Likert scale (from not important to

very important). Kindly indicate your response by ticking (✓) the appropriate box.

	Statement	1	2	3	4
	In choosing this restaurant,				
i.	I paid attention to the ambience (pleasant setting)				
ii.	I ensured that the point of purchase environment is clean				
iii.	I considered the staff cooperation				
iv.	I considered the price of food sold				
v.	I took into consideration the variety of menu items served				
vi.	I considered its excellent service				
vii.	I took into consideration the location and distance				
viii.	I considered its easy access (parking, public transport nearby)				
ix.	The quality of food was a priority				
x.	I considered recommendations by others (word-of-mouth)				
xi.	I relied on my personal experience with the restaurant				
xii.	I considered its advertisement and sales promotion (brand popularity)				
xiii.	I was influenced by its brand reputation				

SECTION II: TYPES OF FOOD CONSUMED IN RESTAURANTS

11. What type of cuisine would you consider to be your favourite?

- | | | | |
|--------------|-----|--------------------------|-----|
| i. Local | [] | vi. British | [] |
| ii. Spanish | [] | vii. French | [] |
| iii. Italian | [] | viii. Chinese | [] |
| iv. Indian | [] | ix. Japanese | [] |
| v. German | [] | x. Other, please specify | |

12. What do you often eat when you visit this restaurant?

i) Main

Dish.....

Accompaniments.....

ii) Main

Dish.....

Accompaniments.....

SECTION III: FOOD-RELATED FACTORS INFLUENCING FOOD

CHOICE

13. Please, rate the extent to which the following factors influence what you eat when eating out on a 5-point Likert scale (strongly disagree- strongly agree). Kindly indicate your response by ticking (✓) the appropriate box.

	Statement/Response	1	2	3	4	5
	I normally eat what I eat because...					
A	<i>Sensory Appeal/ Perceptual Features</i>					
i.	It tastes good					
ii.	The colour is appealing					
iii.	It looks nice					
iv.	It has a pleasant aroma					
v.	The portion size is excellent					
vi.	The texture is usually appropriate					
vii.	The food served is of high quality					
B	<i>Availability/ Accessibility of Food</i>					
i.	The food is served on time					
ii.	It is the most convenient					
iii.	It is always available					
iv.	The menu provides information and ingredients used					
v.	It is the only choice offered					
C	<i>Natural Content</i>					

i.	It contains no additives					
ii.	It contains natural ingredients					
iii.	It contains no artificial ingredients					
iv.	It contains no harmful substances (pesticides, pollutants)					
v.	It is prepared from organic farm produce					

SECTION IV: PERSON-RELATED FACTORS INFLUENCING FOOD

CHOICE

14. Please, rate the extent to which the following factors influence what you eat when eating out on a 5- point Likert scale (strongly disagree - strongly agree). Kindly indicate your response by ticking (✓) the appropriate box.

	Statement/Response	1	2	3	4	5
	I normally eat what I eat because...					
D	<i>Biological Features (Health)</i>					
i.	It is high in fibre					
ii.	It contains a lot of vitamins and minerals					
iii.	It is high in protein					
iv.	It is good for my skin/ teeth/ hair/ nails					
v.	My doctor recommends it					
E	<i>Physiological Needs (Hunger Need and Weight Status)</i>					
i.	It satisfies my hunger					
ii.	It is easy to digest					
iii.	It provides energy					
iv.	It helps me control my weight					
v.	It is low in calories/ fat					
F	<i>Psychological Components (Affection Regulation and Pleasure)</i>					
i.	It makes me happy					
ii.	I have the urge for it					
iii.	It makes me feel less lonely and frustrated					

iv.	It makes my day complete and fulfilling					
v.	It makes me feel relaxed					
vi.	It serves as a source of indulgence and reward					
G	<i>Habits and Experience</i>					
i.	I am accustomed to eating it regularly					
ii.	It is a set part of my daily diet					
iii.	I am familiar with it					
iv.	It serves as a form of distraction					
H	<i>Cognitive Factors</i>					
i.	My choice of food is influenced by my knowledge of food nutrients					
ii.	I lack the skill to cook it for myself					
iii.	My choice of food is influenced by my knowledge of the health implications of the meals					
iv.	It improves brain and mental development					
I	<i>Variety Seeking</i>					
i.	I like to try the most unusual items, even if I am not sure I would like them					
ii.	I do not like to eat the same food for the same meal everyday					
iii.	The food of other cultures appeals to me					
iv.	I like to eat exotic foods					
v.	I need to satisfy my curiosity for food					

SECTION V: SOCIO - CULTURAL FACTORS INFLUENCING FOOD**CHOICE**

15. Please, rate the extent to which the following factors influence what you eat when eating out on a 5-point Likert scale (strongly disagree - strongly agree). Kindly indicate your response by ticking (✓) the appropriate box.

	Statement/Response	1	2	3	4	5
	I normally eat what I eat because...					
J	<i>Culture (Social Norms and Values)</i>					
i.	I grew up with it					
ii.	It is a traditional recipe					
iii.	It is polite to eat it					
iv.	Other people (close friends, family) eat it					
v.	My family/partner thinks that it is good for me					
K	<i>Social Image</i>					
i.	It is trendy/ others like it					
ii.	It makes me look good in front of others					
iii.	It makes me stand out from the crowd					
iv.	It helps me spend time with other people					
v.	It makes a social gathering more enjoyable					
vi.	It facilitates contact with others (business meals, events)					
K	<i>Economic</i>					
i.	It cost less					
i.	It is on discount / promotional offer					
i.	It is good value for money					
v.	My company has paid for it					
v.	It saves me time					
L	<i>Environmental and Political</i>					
i.	It is permissible by religion					
ii.	It comes from a country I approve of politically					
iii.	It has certification from the government					
iv.	It is sourced locally					
v.	It is environmentally friendly (production, sourcing, packaging, transport)					

SECTION VI: SOCIO - DEMOGRAPHIC OF RESPONDENT

16. Gender: Male [] Female []

17. Age (in completed years)

18. Highest level of education:

i. No formal education [] ii. Primary education []

iii. Middle/JHS [] iv. Secondary/Technical []

v. Polytechnic/ University graduate [] vi. Postgraduate []

vii. Other (Specify).....

19. Marital status

i. Single [] ii. Married [] iii. Neutral []

20. Employment Status:

i. Employed [] ii. Unemployed []

iii. Student [] iv. Homemaker [] v. Retired []

21b. If employed, please state your main occupation.....

21. Which category of income is close to your monthly income:

i. less than; ₵500 [] ii. ₵500 - 1,499 []

iii. ₵1,500 - 2,499 [] iv. ₵2,500 - 3,499 []

v. ₵3,500 - 4,499 [] vii. ₵4,500 and above []

22. Religion:.....

23. Ethnicity:.....

24. Nationality:.....