Health & Wellness Trends and Business Implications

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ABSTRACT

Health and wellness trends are evolving across the world, influencing consumer behaviors and reshaping consumption patterns and lifestyles. In this evolving landscape, businesses need to update their strategies to align with these emerging trends. The purpose of this study is to investigate the impact of Health and Wellness trends on consumption patterns, understand factors and motivations driving health-related consumer decisions, as well as studying their business implications. The study adopts exploratory research, searching for an in-depth understanding, and aiming at gaining insights in the subject, and potentially developing guidelines and strategies regarding it. It also adopts an Analytical/Explanatory method describing the characteristics of evolving health-conscious behaviors, analyzing their impact on consumption and lifestyle choices, and providing insights related to challenges and implications for businesses. The study provides opportunities for emphasizing and complementing the existing knowledge with an attempt to address and fill some areas of the gap in the current theories and practices. The research framework comprises two components: 1-Primary data collected from quantitative and qualitative surveys. 2-Secondary research data from reliable sources. The key findings of the study show a significant impact of health and wellness trends on consumption patterns. The results show that consumers in their majority believe that wellness and health-related factors are very important and considered in their product choices and lifestyle. Consumers also believe that businesses should adapt their products and services to align with health trends. The present study provides new horizons for innovation and areas of application, leveraging design thinking strategies and methods. It also opens new doors for concerned organizations and professionals interested in understanding health & wellness trends, to build on the outcome of our research and design new models for further studies.

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DECLARATION

I declare that this dissertation "Health & Wellness Trends and Business Implications" presented to the department of Innovation and Design Thinking program at Selinus University – Faculty of Business & Media, in fulfillment of the requirements for the degree of Doctor of Philosophy in Innovation and Design Thinking, is entirely my personal work. Its contents are the result of the quantitative and qualitative surveys, studies and research I have conducted. All external sources used in this dissertation are well acknowledged and referenced. This work has not been previously submitted for any academic requirements or awards in any other college.

Nadim Chafic Khattar

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CHAPTER 1 – INTRODUCTION

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1.1 Background Information

A growing interest in health and wellness is driving an overwhelming transformation in consumer behaviors across the world (McKinsey & Company, 2021). In this evolving landscape, businesses from different industries need to update and modify their strategies and plans, considering emerging trends that will affect their market dynamics and long-term success. Business organizations, from manufacturers to retailers and brands, are strategically involved in the implications of these health-conscious trends. From product development to design thinking and marketing strategies, concerned businesses need to redesign and adapt their business concepts and offerings to suit the new consumer behaviors and preferences (Baldwin & Von Hippel, 2011).

Consumers are increasingly choosing brands and products based on health and wellness considerations (Market Xcel Data Matrix, 2023). Their desire for healthy choices drives their purchasing decisions and extends beyond their eating habits to include many aspects of consumption. Consumption patterns are increasingly prioritizing nutritious options, driving demand for organic, plant-based, and minimally processed foods (National Institutes of Health, 2021). These shifts in consumer demand are not limited to the food and beverage industry, they have a profound effect on a wide range of industries and business sectors such as retail businesses, fitness and wellness, personal care, healthcare, hospitality, tourism, sustainable products, sports clothing, athleisure wear, and others. To adapt to these health-conscious consumption patterns, businesses are facing real challenges to understand these new patterns with their underlying factors, functional and motivational, and to take the necessary actions to adapt their offerings and services.

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The health-conscious customer category offers organizations new market prospects. There is a visible growing market for wellness-oriented goods and services, which opens up new opportunities for innovation and product development (FasterCapital, 2024). Companies that adapt their brands and products to connect with wellness and health-related behaviors will be able to gain a competitive advantage and grow their shares. Innovation and Design Thinking play a vital role in driving business development strategies for organizations and companies to meet the evolving needs and demands influenced by health and wellness trends. Innovative concepts developed through design thinking methods and strategies with customer centric approaches offer business organizations and companies a new scope for changes and adaptations to capture the growing opportunities generated by health and wellness trends.

This study aims to investigate how evolving health and wellness trends are influencing consumer behaviors and preferences, as well as studying their implications for businesses across different sectors. The study attempts to provide valuable information and insights for concerned business owners and decision makers, manufacturers, design thinkers and marketers, to help them understand and adapt to the changing market demands and consumption patterns influenced by health and wellness trends.

1.2 Problem Statement

This study addresses the challenge of the growing shifting in consumer behaviors and preferences influenced by health and wellness trends, as well as the implications of these trends on consumer choices and consumptions with their underlying factors. These changes represent strategic challenges for a wide range of business sectors such as food and beverage, retail

business, fitness and wellness, personal care, healthcare, restaurants, hospitality and tourism, and other related businesses and services.

Understanding and providing insights into these dynamics will help concerned business sectors adjust their offerings and strategies to effectively respond to the shifting market demands, facilitating strategic adaptation to meet the evolving needs of health-conscious consumers in the context of health and wellness trends.

1.3 Aim of the Study

The aim of the study is to explore and understand the impact of health and wellness trends on consumption patterns and their implications for businesses, through primary and secondary data collection and analysis. The research purpose is to update and add new information to the existing knowledge with an attempt to address and fill a gap in the current knowledge. The research aims to provide valuable information and insights for concerned business owners and entrepreneurs, manufacturers, design thinkers and marketers, to help them understand and adapt to the changing market demands and consumption patterns influenced by health and wellness trends.

1.4 Objectives of the Study

The objectives of the study are summarized as follows:

1. To study evolving health and wellness trends / health-conscious behaviors, and analyze their influence on consumption and lifestyle choices.

2. To understand factors and motivations driving health-related consumer decisions.

3. To provide insights for businesses, policymakers, manufacturers, design thinkers and marketers, to adapt to the changing market demands influenced by health and wellness trends.

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1.5 Proposed Solution

The study adopts exploratory research, searching for an in-depth understanding, and aiming at gaining insights in the subject and potentially develop guidelines and visions regarding it. It also adopts an Analytical/Explanatory research analyzing the characteristics of evolving health-conscious behaviors, studying their impact on consumption and lifestyle choices, and providing insights related to challenges and implications for businesses. This research explores and collects secondary data from literature reviews, academic journals, case studies, statistics, surveys and research findings, along with primary research to provide both qualitative and quantitative data with analysis, interpretation, and actionable recommendations for concerned people and business organizations. The correlation between the three components of this research, namely secondary data and primary quantitative and qualitative findings, will provide a comprehensive knowledge identifying the major influences and implications of health and wellness trends on consumer behaviors and their consumption patterns, as well as formulating actionable guidelines for future business adaptations to overcome the challenging changes and identify innovative strategies with design thinking approaches for long-term success. In addition, addressing the underlying reasons driving health and wellness trends investigated in this research, gives an in-depth understanding of the motivations behind changing consumer behaviors and choices, and add more insights to the present knowledge and assumptions extracted from previous explorations.

Research questions:

1. "How do evolving health and wellness trends influence consumer consumption patterns?"

2. "What are the key factors shaping the choices individuals make in terms of food, products, lifestyle, wellness practices?"

3. "What are the implications for businesses? And How should policymakers, design thinkers and marketers react?"

1.6 Scope of the Research – Limitations – Structure

The research provides opportunities for emphasizing and complementing the existing knowledge with an attempt to address and fill a gap in the current theories and practices. It also opens the doors for new challenges related to existing assumptions. Our research questions are relevant to the problem and areas of research, and the findings provide an added value in terms of significance, feasibility and actionability. The research also highlights the areas of application and identifies future opportunities for businesses such as food and beverage, farmers, healthcare providers, wellness professionals, retail and e-commerce businesses, hospitality and food services. The results of the research provide clear and direct answers to the researched questions which can help update the knowledge and improve the practice in the concerned sectors. In this context, the study covers more than the area related to the visible aspects of the impact of health and wellness trends. It identifies the motivations behind health-conscious choices, and analyses the importance of each motivation. The research also investigates the implications and significance for businesses, exploring the most affected business sectors, and providing guidelines for furfure adaptations. The research includes a detailed chapter with case studies demonstrating the vital role of Innovation and Design Thinking in driving business development strategies for organizations and companies involved in the changing consumer demands influenced by health and wellness trends.

The present study offers new insights and open new doors for concerned organizations and professionals interested in understanding consumer behaviors and health trends to build on the

outcome of this research and design new models for further studies and investigations on the topic.

Some limitations in this research need to be solved in future studies to give a more exhaustive scope. Among these limitations are the limited size of sample, and the technological support needed to facilitate the data collection and analysis with higher capacity of data treatment and compilation.

The results of this research show a real need for further studies and investigations on the researched field. It emphasizes the importance of getting a deeper understanding of the topic with its different aspects including both parts, consumers and professionals. Studying the subject with larger target population will give the research a broader scope and will have the advantage to cover the different aspects involved in health and wellness trends.

The structure of this research includes secondary findings provided as background study with analysis and conclusions based on existing studies and surveys conducted to address similar questions, in addition to primary quantitative and qualitative data from consumer and professional surveys. The dissertation is split into seven chapters, starting with the "Introduction", followed by "Literature review & background study", "Data & Methodology", "Results & Analysis", "Role of Innovation & Design Thinking", "Validation and performance evaluation", and ending with chapter 7 "Discussion, further work and conclusion".

CHAPTER 2 – LITERATURE REVIEW / BACKGROUND STUDY

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2.1 Literature Review/Overview

From a review of relevant literature, notably research findings, studies and articles, this section is provided as fundamental background study for the research with an overview of the existing data and analysis extracted from studies and surveys that have been conducted to address similar questions. Based on the literature knowledge background this research aims at emphasizing and complementing the existing knowledge gained from the existing approaches, methods, and tools that have been used to achieve similar goals as sought by this research. This dissertation, through its research process that includes quantitative and qualitative surveys, is seeking to provide additional information focusing on the influences of health and wellness trends on consumption patterns and their business implications across different sectors and industries. It also aims at identifying the most impacted business sectors and formulating actionable guidelines for future adaptations, with the help of design thinking innovative methods and techniques, to overcome the challenging changes.

As defined in the literature and by professionals and organizations in the health and wellness sectors, wellness is the act of adopting healthy practices on a daily basis to improve one's physical and mental wellbeing (Physiopedia 'The concept of wellness'). To understand the meaning of wellness, it's crucial to understand the relation between "wellness" and "health" and their underlying factors. According to the World Health Organization (WHO), health is defined as being "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity".

The key to achieving good health and overall wellbeing is closely connected to actively participating in purposeful and significant daily activities (Jarosz, 2021). The pursuit of good

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health and wellbeing is closely connected to our active participation in meaningful activities that embrace different facets of our identity. Socially, it encompasses the building of connections, active engagement in community interactions, and good communication with others (National Institutes of Health, 2023). Emotionally, it involves comprehending and controlling our emotions, responses, and thoughts, while developing coping mechanisms to traverse the difficulties of life. Intellectual wellness thrives by promoting critical thinking, encouraging creativity, and maintaining a constant enthusiasm as individuals committed to lifelong learning. Physical wellbeing is achieved by the attentive care of our bodies, careful choice of nutritious foods, and fostering of beneficial behaviour. From a spiritual perspective, our ultimate objective is to find significance and worth, working towards inner tranquilly and balance, while also uncovering the meaning of our being. Occupationally, it includes developing expertise, handling financial matters, achieving a harmonious equilibrium between work and leisure hobbies, drawing happiness from achievements, and attaining fulfilment in our chosen pursuits. Every dimension plays a crucial role in our overall wellbeing, influencing our journey towards a satisfying and harmonious life (National Wellness Institute – *NWI's Six Dimensions of Wellness*, 2022).

Food and nutrition, fitness, sports, social connectedness, sleep and mindfulness, all are considered parts of our wellness lifestyle (Pfizer Inc. 2024). Our physical and emotional wellbeing are impacted by each of them. By adopting healthful decisions in our life, we can achieve optimal wellness, minimize stress, boost our relationships and satisfy social and psychological needs from belonging and love to self-esteem and confidence to self-actualization.

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2.2 Wellness Definition and Meaning

Wellness is a modern word that comes from old Greek and Latin. Ancient civilizations in both the East (India and China) and the West (Greece and Rome) came up with the basic ideas of healthcare, which include both preventative steps and a broad view of health (Global Wellness Institute). During the 1800s, many educational, religious, and medical groups sprung up in both Europe and the US. These groups worked in opposition to traditional medicine. The focus of these groups on natural and holistic methods, self-healing, and preventive care has set a strong foundation for modern health. Since the 1960s and 1970s, people have become more aware of wellness-focused and holistic methods thanks to the works and important ideas of US researchers, doctors and intellectuals, such as Halbert Dunn, Jack Travis, Don Ardell, Bill Hettler, and others (Global Wellness Industry – *ADB white paper*, 2018). These practices are becoming more popular, which has helped the wellness concept grow in the 21st century. Wellness now includes engagement in exercise, nutrition, food, spirituality, and healthy living (Global Wellness Institute, 2021).

2.2.1 Defining Wellness

The words "health" and "wellness" are sometimes used interchangeably, while they have distinct meanings. The World Health Organization (WHO) defined health as "a state of complete physical, mental, and social wellbeing, and not merely the absence of disease or infirmity". WHO states that the main factors that influence health are the social, economic, and physical surroundings, as well as an individual's own actions. The World Health Organization defines wellness as "the optimal state of health of individuals and groups" and it is expressed as "a positive approach to living" (MedicalNewsToday, 2023).

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According to the National Wellness Institute, wellness is considered, "an active process through which people become aware of, and make choices toward, a more successful existence" (National Wellness Institute - https://members.nationalwellness.org/page/Six_Dimensions).

The Global Wellness Institute defines Wellness as "The active pursuit of activities, choices and lifestyles that lead to a state of holistic health" (Global Wellness Institute-https://globalwellnessinstitute.org/what-is-wellness/).

The American Psychological Association (APA) defines Wellness as "a dynamic state of physical, mental, and social wellbeing". According to the APA health care programs should promote the good mental and physical health rather than being concerned merely with the prevention and treatment of illness and disease (American Psychological Association, 2018).

Merriam-Webster Dictionary defines it as "Wellness is the quality or state of being in good health, especially as an actively sought goal" (www.merriamwebster.com/dictionary/wellness).

2.2.2 A Proactive and Preventive Approach

This conceptual framework provides a clear understanding of wellness by presenting it as a spectrum that ranges from physical challenges to a state of optimal mental and physical wellbeing (Tallini, 2011). Patients who are negatively impacted by their conditions use the medical paradigm to address their health issues. Contrary to popular beliefs, people are actively taking steps to prevent illness and improve their overall wellbeing. People naturally tend to develop behaviour and attitudes that help them stay healthy, improve their overall wellbeing, and enhance their quality of life. The concept of wellness can be described as a proactive and self-responsible approach that focuses on prevention (Global Wellness Institute). The practice of wellness activities is a direct reflection of consumer value and perspective. Healthcare and wellness are distinct concepts. Our healthcare systems take a comprehensive approach, focusing

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on understanding the causes, effects, diagnosis, and treatment of illnesses and injuries. On the other hand, wellness is all about taking a proactive approach and focusing on achieving optimal wellbeing, maintaining healthy lifestyles, and taking preventative measures (Wilfried Laurier University, 2024). Simply put, establishing a strong basis for wellbeing enables us to effectively prevent and conquer illnesses, both now and in the future.
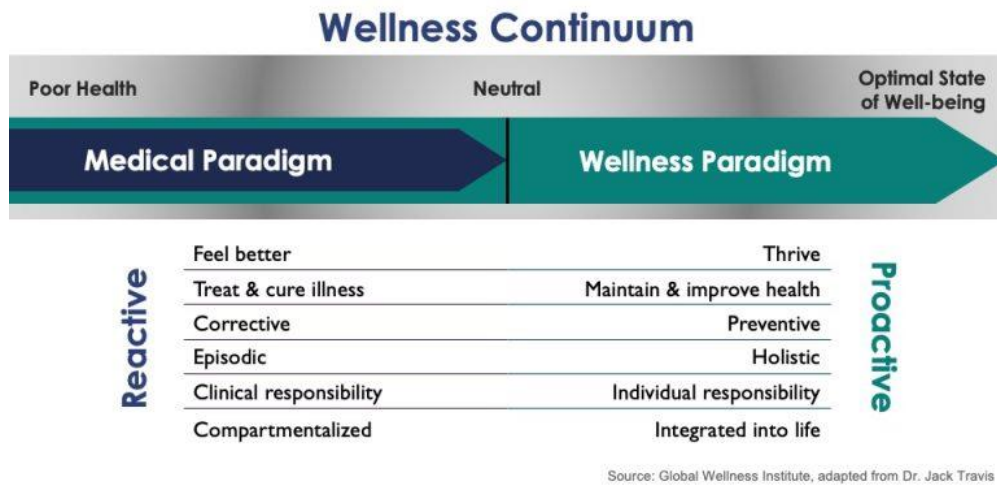
Figure 1: The continuum concept is adapted from Dr. Jack Travis' Illness-Wellness Continuum. Travis is one of the pioneers of the modern wellness movement in the late 1970s.

2.2.3 Understanding the Difference Between Wellness and Wellbeing

Publishers, media, corporations, and researchers often use the words "wellness" and "wellbeing" interchangeably. These words have different meanings, uses, and connotations. Wellness involves intentional behaviour, activities and plans, and is linked to healthy lifestyles and decisions. Wellbeing is a mental and emotional condition that is associated with contentment and achievement. Global Wellness Institute distinguishes wellness from wellbeing or happiness, which helps define their meaning.

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Wellness	Well-being & Happiness
• Multidimensional, dynamic, subjective, and personal • Subject to historical and cultural differences and contexts	
• Relates to intention, action, activities. • Has a prominent physical dimension. • Consumers associate it with healthy lifestyles, choices, and market offerings. • Common usage in business/private industry context (e.g., wellness sector). • Useful concept for measuring industry size and discussing business opportunities (e.g., wellness economy).	• Perception of a state of being. • Has a prominent mental/emotional dimension. • Citizens associate it with feelings of satisfaction and sense of fulfilment. • Common usage in policy/government context (e.g., well-being budgeting). • Useful for measuring individual/citizen welfare (e.g., *Global Happiness Index*) and for organizing policies and interventions.

Source: Global Wellness Institute

Figure 2: Wellness vs Wellbeing & Happiness- Source: Global Wellness Institute.

2.3 Historical Overview

The evolution of health and wellness trends is an historical journey that reflects the changing needs, beliefs, and practices of societies over time. It reflects a dynamic connection between tradition and innovation, cultural values and scientific advancements, individual choices and societal influences. Understanding the historical evolution of wellness is crucial for organizations and professionals seeking to navigate the complex landscape of the health and wellness market and meet the evolving needs of consumers.

Historically, health and wellness practices were deeply rooted in traditional and cultural beliefs, often intertwined with spiritual or religious practices. These early approaches to health focused on holistic wellbeing, balancing the mind, body, and spirit (St. Catherine University, 2022). In ancient civilizations such as Egypt, China, and India, traditional medical systems like Ayurveda, Traditional Chinese Medicine (TCM), and herbalism were prevalent (Patwardhan *et al.*, 2005 - *National Institutes of Health*). These approaches emphasized the use of natural remedies, dietary adjustments, physical therapies (such as yoga and tai chi), and spiritual

practices to promote health and prevent illness. As societies progressed and encountered new challenges, health and wellness practices adapted accordingly. The industrial revolution brought about significant changes in lifestyle and environment, leading to the emergence of new health concerns such as urbanization-related diseases and occupational hazards. In response, modern medicine began to prioritize scientific research, pharmaceutical developments, and specialized medical treatments. However, alongside the advancements in modern medicine, there has been a resurgence of interest in traditional health practices. This shift can be attributed to various factors, including dissatisfaction with the side effects of pharmaceutical drugs, a desire for more holistic approaches to health, and a growing awareness of the interconnectedness between personal wellbeing and the environment.

In recent decades, we've witnessed a proliferation of alternatives and complementary therapies, including acupuncture, naturopathy, chiropractic care, and mindfulness meditation. These practices have gained popularity as people seek more personalized and integrative approaches to health care (University of North Carolina at Chapel Hill - *The Program on Integrative Medicine, 2004*). Moreover, technological advancements have significantly contributed to the rapid growth and evolution of health and wellness trends. The rise of the internet and social media has facilitated the access to health information, empowering individuals to take control of their health through self-care practices, online resources, and virtual communities (Pankajkumar A. Anawade Sr, Sharma and Gahane, 2024). Today, health and wellness trends encompass a wide range of approaches, from ancient traditions to cutting-edge technologies. There is a growing emphasis on preventive health measures, personalized nutrition, functional fitness, mental health awareness, and sustainability.

The Evolution of Wellness

Ayurveda
3000-1500 B.C.

Ancient Greek Medicine
500 B.C.

Traditional Chinese Medicine
3000-2000 B.C.

Homeopathy
1790s

Hydrotherapy
1860s

Chiropractic
1890s

The Flexner Report
1910

Organic Farming
1950s

"High Level Wellness"
1960s

First Wellness Center Opens
1970s

Wellness Goes Mainstream
1980s-2000

Bhutan Gross National Happiness
2008

Wellness Goes Global
2010

Legislation to Curb
Obesity/Diabetes
2011-2018

UN *World Happiness Report*
2012

Global Wellness Institute
& *Global Wellness Economy Monitor*
2014

*Global Wellness Tourism
Economy* Report
2013

GWI *Build Well to
Live Well* Report
2018

The Wellness Moonshot:
A World Free of Preventable Disease
2017

Source: Global Wellness Institute 'History of wellness',
https://globalwellnessinstitute.org/what-is-wellness/history-of-wellness/

Figure3: The evolution of wellness- Source: Global Wellness Institute.

2.3.1 Evolution of Health & Wellness Practices in India

Indian health and wellness practices have evolved considerably over the years. They include a mix of ancient habits, cultural influences, and modern advancements. India's health and wellness history goes back thousands of years and reflects a dynamic interplay between indigenous practices like Ayurveda, Yoga, and traditional medicine, as well as the integration of global methods through colonialism and globalization (Athaley, 2023).

1. The "ancient" era (before 1500 BCE): Ancient India's culture set the stage for health practices. Ayurveda, which is often considered the world's oldest medical science, began during this time. It consists of ensuring a balance between the body, mind, and spirit, keeping the health system in balance through diet, yoga, meditation, and herbal remedies (Athaley, 2023). The

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Vedas, ancient Indian scriptures, contain a lot of information about medical herbs and practices that can help for health.

Dhanvantari is the physician of the devas in Hinduism. He is regarded as an avatar of Vishnu. He is mentioned in the Puranas as the god of Ayurveda.
Source:
https://en.wikipedia.org/wiki/Ayurveda

Figure 4: Dhanvantari, mentioned in the Puranas as the God of Ayurveda. Source:
https://en.wikipedia.org/wiki/Ayurveda

Ayurveda
doshas

Ayurveda is an ancient Indian healing practice that examines the interconnectedness of our physical, mental, and spiritual wellbeing.

One of the main concepts in Ayurveda is that different people have different doshas, or types of energy. Based on the three Doshas, Vata, Pitta, and Kapha, Ayurveda figures out what is wrong with the body. Vata is linked to air, Pitta linked to fire, and Kapha is linked to water. Living a good life depends on keeping these three elements in balance. If they are unbalanced, people can suffer from health problems or get sick.

- DOSHA - VATA
- DOSHA - PITTA
- DOSHA - KAPHA

Figure 5: Ayurveda doshas- Sources:
https://www.divineyogababe.com/blog/an-introduction-to-ayurveda-dosha-types
https://realhappiness.org/blog/what-are-doshas-and-its-types.php
https://artoflivingretreatcenter.org/blog/know-yourself-by-knowing-your-ayurvedic-body-type/

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2. The Classical Period (1500 BCE – 600 CE): During this time, Ayurveda flourished with the compilation of major texts like the Charaka Samhita and Sushruta Samhita (National Institutes of Health, 2016). These texts provide more details about anatomy, physiology, surgery, and drugs, shaping the practice of medicine in India for centuries to come. Yoga, another integral aspect of wellness, gained prominence, with the Yoga Sutras of Patanjali codifying yoga philosophy and practices.

3. The Middle Ages (600 CE – 1500 CE): Despite invasions and political upheavals, Ayurveda continued to evolve. Persian and Arab influences enriched medical knowledge through translations of Ayurvedic texts. The Unani system of medicine, blending Greek, Arabic, and Indian principles, gained popularity in India during this period, particularly under the Delhi Sultanate and Mughal Empire (Ministry of AYUSH, Government of India, 2016).

4. The Colonial Era (1500 CE – 1947 CE): The arrival of European colonial powers in India brought significant changes to healthcare. The British East India Company established Western medical institutions, introducing allopathic medicine and vaccination programs. The first modern medical college in India was established in Calcutta (Kolkata) in 1835, followed by medical colleges in Bombay in 1845 and Madras in 1850 (Kumbhar, 2020). These institutions followed the Western model of medical education and focused on modern medical knowledge and practices (Athaley, 2023). While Western medicine gained traction among the elite and urban populations, traditional systems like Ayurveda faced suppression and marginalization.

5. Post-Independence Period (1947 CE – late 20th century): Following independence, India's healthcare system underwent significant reforms. Modern medicine continued to grow and expand in India. Embracing the importance of comprehensive healthcare, there have been

initiatives to encourage a balanced approach that incorporates the benefits of both modern medicine and traditional healing methods. This dynamic approach aims to deliver holistic and patient-focused healthcare, incorporating the rich healthcare traditions of India while focusing on treatments that are supported by scientific evidence and research (Kumbhar, Kiran Sambhaji, 2022). The government launched initiatives to promote primary healthcare and integrate traditional medicine into the mainstream. The establishment of institutions like the All India Institute of Medical Sciences (AIIMS) and the Central Council for Research in Ayurvedic Sciences (CCRAS) aimed to bridge the gap between modern and traditional medicine.

6. Contemporary Period (Late 20th Century – Present): Globalization has brought both opportunities and challenges to India's healthcare landscape. While modern medical technologies and pharmaceuticals have advanced healthcare delivery, a resurgence of interest in traditional practices like Ayurveda, Yoga, and naturopathy was also seen. Wellness tourism has emerged as a thriving industry, attracting visitors seeking holistic healing experiences (Mendiratta, 2023).

Throughout its history, India's health and wellness practices have been shaped by cultural, social, and economic factors. Today, there's a growing recognition of the complementary nature of traditional and modern approaches to healthcare. As India continues to evolve, embracing its rich heritage while embracing innovation will be crucial in ensuring the health and wellbeing of its diverse population (Kumar, A. - National Institutes of Health, 2023).

2.3.2 Evolution of Health & Wellness Practices in China

The historical evolution of health and wellness practices in China spans millennia, reflecting a blend of indigenous traditions, cultural exchanges, and modern influences. From ancient

healing arts like Traditional Chinese Medicine (TCM) to contemporary wellness trends, China's approach to health has been shaped by a complex mix of factors including philosophy, religion, politics, and globalization.

1. Ancient Period (Pre-221 BCE): Chinese civilization's earliest records reveal a deep reverence for health and wellness. The concept of "Dao" (Tao), meaning the natural way or path, underpinned the holistic approach to health. Practices like Qigong, Tai Chi, and acupuncture emerged during this period, rooted in the belief in the body's vital energy (Qi) and its flow along meridians (Ping Lu, 2018).

2. The Classical Period (221 BCE – 220 CE): The Qin and Han dynasties witnessed significant developments in Chinese medicine. The Huangdi Neijing (Yellow Emperor's Inner Canon) compiled during this era, laid the foundation for TCM theory, including the concepts of Yin and Yang, Five Elements, and the balance of Qi (Encyclopaedia Britannica, 2024). Herbal medicine also flourished, with extensive pharmacopeias detailing the properties and uses of various medicinal plants.

3. The Medieval Period (220 CE – 1279 CE): The spread of Buddhism from India to China during this period brought new healing practices. Buddhist monasteries served as centers for healthcare and medical education, introducing techniques like meditation, mindfulness, and vegetarianism. Buddhist-inspired herbal remedies and dietary therapies became integrated into Chinese medicine (Benn, Meeks, and Robson, 2009).

4. Imperial Period (1279 CE – 1912 CE): The Ming and Qing dynasties saw the codification and standardization of TCM practices. The publication of the Ben cao Gang mu (Compendium of Materia Medica) by Li Shizhen in the 16th century was a landmark in herbal medicine,

documenting over 1,800 medical/medicinal materials (The Library of Congress). Acupuncture and moxibustion gained further refinement and widespread acceptance.
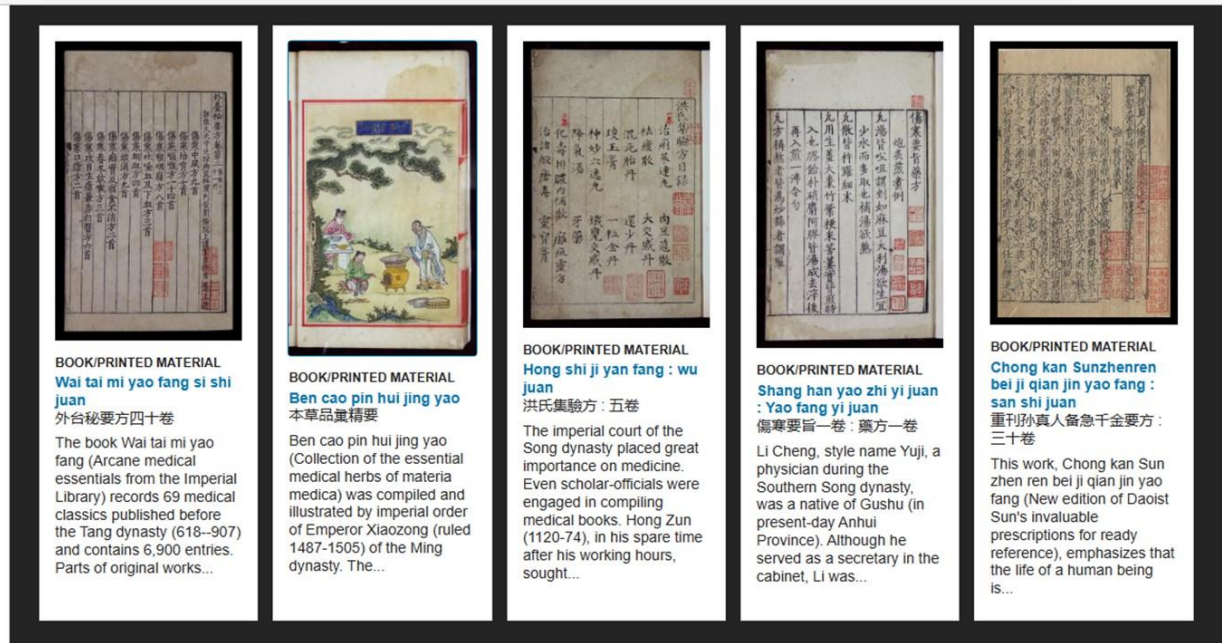
Figure 6: Chinese books - Manuscripts - Printed materials

Source Collection: Chinese Books, Manuscripts, Maps, and Prints
Library of Congress Control Number 2021666438
https://hdl.loc.gov/loc.wdl/wdl.13528

5. Modernization and Colonialism (Late 19th Century – Mid-20th Century): The late Qing dynasty and the early Republic of China witnessed challenges to traditional practices due to Western colonial influences. The introduction of Western medicine and the decline of the imperial system led to a decline in TCM's prestige. However, efforts to modernize TCM began in the early 20th century, with the establishment of medical schools and hospitals blending Western and Chinese approaches (Scientific Research, 2023).

6. Communist Era and Cultural Revolution (1949 CE – 1976 CE): The founding of the People's Republic of China under Mao Zedong brought significant changes to healthcare (Alvarez, 2018). TCM was initially sidelined in favor of Soviet-style biomedicine. However, during the

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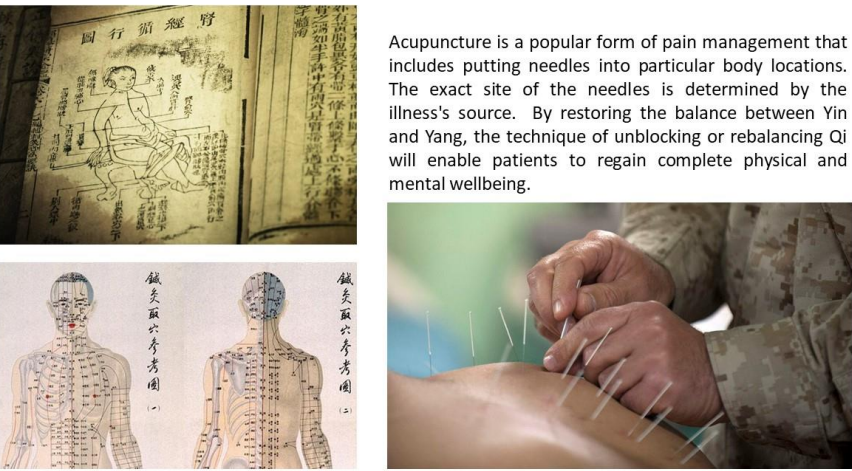
Cultural Revolution, traditional practices faced persecution as symbols of bourgeois elitism. Many practitioners were persecuted, and ancient texts were destroyed.

7. Post-Reform Period (1978 CE – Present): China's economic reforms in the late 20th century ushered in a renewed interest in traditional culture, including TCM. The government began promoting TCM both domestically and internationally, integrating it into the national healthcare system. TCM hospitals and research institutes proliferated, and efforts were made to standardize and modernize TCM practices (National Institutes of Health, 2020).

8. Contemporary Trends and Globalization: Today, China's health and wellness landscape reflect a blend of traditional and modern influences. TCM remains a cornerstone of healthcare, with acupuncture, herbal medicine, and therapeutic exercises widely practiced. At the same time, Western biomedicine coexists alongside traditional practices, and China has become a hub for wellness tourism, attracting visitors seeking holistic healing experiences.

Traditional Chinese Medicines

With a history spanning thousands of years, various traditional Chinese medicines continue to be extensively practiced to enhance wellbeing. While many medications are widely acknowledged in the Western world, numerous others remain mostly unfamiliar outside of China. However, these therapy approaches have become an essential part of the Chinese health & wellness traditions.

Acupuncture is a popular form of pain management that includes putting needles into particular body locations. The exact site of the needles is determined by the illness's source. By restoring the balance between Yin and Yang, the technique of unblocking or rebalancing Qi will enable patients to regain complete physical and mental wellbeing.

Image credit TCM world   Image credit: Popular Science

Figure 7: Source: Legacy of Taste (2018) https://www.legacyoftaste.com/2018/05/23/the-history-of-chinese-medicine-and-its-ancient-therapy-techniques/

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In conclusion, China's journey through history has seen the continuous evolution and adaptation of health and wellness practices. From ancient philosophical principles to modern integrative medicine, the rich tapestry of Chinese healthcare reflects a dynamic synthesis of tradition and innovation, rooted in a great understanding of the interconnectedness of body, mind, and spirit.

2.3.3 Evolution of Health & Wellness Practices in the Western World

The historical evolution of health and wellness practices in the Western world is a fascinating journey that spans thousands of years, shaped by diverse cultures, scientific advancements, philosophical movements, and socio-political changes. From ancient Greece and Rome to the Renaissance, Enlightenment, and modern era, the Western approach to health has undergone a continuous evolution, blending tradition with innovation, and adapting to the ever-changing needs of society.

1. Ancient Greece and Rome (c. 800 BCE – 500 CE): The roots of Western medicine can be traced back to ancient Greece, where scholars like Hippocrates laid the foundation for rational and empirical approaches to health (Cleveland Clinic, 2022). The Hippocratic Corpus emphasized the importance of natural causes of disease and the holistic treatment of patients. Greek physicians practiced therapies such as herbal medicine, dietary modifications, and physical exercise. Similarly, in ancient Rome, figures like Galen contributed to medical knowledge, emphasizing anatomical studies and the importance of hygiene. Roman public health initiatives, such as aqueducts and public baths, promoted sanitation and disease prevention on a large scale (MedicalNewsToday, 2018).

Figure 8: Ancient Greece and the Roots of Western Medicine – Source: Hillingdon Libraries, 2020).

The ancient Greeks were early adopters of the notion of "a healthy mind in a healthy body," and their approach to healing encompassed both physical and mental wellness. Greek physicians employed a logical thought process in their medical practices, and this methodology continues to exert a significant impact on modern medicine. Greek physicians transitioned from relying on divine intervention for healing to adopting practical and natural remedies. Several of these beliefs still have a significant influence on current scientific and medical thought.

Hippocrates: Hippocrates of Kos was born in 460 B.C.E. and died in 370 B.C.E. He made significant and enduring contributions to medicine that continue to be influential today as the founder of the Hippocratic School of Medicine. The instruction at his educational institution brought about a significant and fundamental change in the field of medicine, solidifying it as a distinct occupation and area of study. Prior to that time, medicine was integrated within the realm of philosophy and encompassed the use of rituals, incantations, and the expulsion of

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malevolent spirits. Hippocrates and his associates authored the "Hippocratic Corpus," a collection of over 60 early ancient Greek medical texts. These early medical practitioners advocated for the methodical examination of clinical medicine. They conducted diseases studies through direct examination of the individuals. In the present day, the Hippocratic oath is a solemn pledge that doctors and other healthcare workers make upon completing their qualifications. They pledge to adhere to ethical and honest practices in the field of medicine. Hippocrates and his school were the first to use medical terminology like acute and chronic, endemic and epidemic, convalescence, crisis, exacerbation, paroxysm, peak, relapse and resolution (Hillingdon Libraries, 2020).

2. Medieval Period (500 CE – 1500 CE): The fall of the Western Roman Empire saw a decline in medical knowledge and public health infrastructure in Europe. During the Middle Ages, medical practice was largely influenced by religious institutions, with monasteries serving as centers for healthcare (wikipedia.org). Herbal remedies, bloodletting, and prayer were common treatments, reflecting a blend of Christian beliefs and folk medicine traditions.

3. Renaissance and Early Modern Period (14th – 18th Century): During this period, there was a renaissance of interest in classical learning as well as scientific investigation. Figures like Leonardo da Vinci made significant contributions to anatomical studies, laying the groundwork for modern medicine (Brewminate, 2021). The printing press facilitated the dissemination of medical knowledge, allowing for the widespread circulation of medical texts. The Enlightenment further transformed Western medicine by emphasizing reason, empiricism, and skepticism. The rise of experimental science led to advances in anatomy, physiology, and pathology. Figures like William Harvey revolutionized the understanding of circulation, while Edward Jenner pioneered vaccination against smallpox (ScienceDirect.com, 2021).

4. Industrial Revolution and Public Health (18th – 19th Century): The Industrial Revolution brought profound changes to Western society, including urbanization, overcrowding, and unsanitary living conditions. This led to the rise of infectious diseases like cholera and tuberculosis, prompting governments to implement public health reforms. The development of germ theory by figures like Louis Pasteur and Robert Koch revolutionized disease prevention and treatment (ScienceDirect.com, 2012). The establishment of public health agencies, sanitation systems, and vaccination programs improved overall health outcomes and life expectancy. Social reformers like Florence Nightingale emphasized the importance of hygiene and nursing care in healthcare settings (UT Health Science Center Library, 2015).

5. Modern Medicine and Biomedical Paradigm (20th Century – Present): The 20th century witnessed unprecedented advancements in medical science and technology. The discovery of antibiotics, anesthesia, and vaccines revolutionized the treatment of infectious diseases and surgical procedures (DeAngulo and Losada, 2015). The development of diagnostic imaging techniques and pharmaceutical drugs further expanded the scope of medical interventions. The biomedical paradigm, which focuses on the biological mechanisms of disease and the use of drugs and surgery for treatment, became dominant in Western medicine. This era also saw the rise of specialization and sub-specialization within medical disciplines, leading to the fragmentation of healthcare delivery.

6. Holistic Health and Integrative Medicine: In response to the limitations of the biomedical model, there has been a growing interest in holistic health and integrative medicine in the Western world. Approaches like chiropractic, osteopathy, naturopathy, and acupuncture seek to address the underlying causes of illness and promote wellness through a combination of conventional and complementary therapies (Ernst, 1997). The wellness movement, which

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emphasizes preventive health measures, stress management, and lifestyle modifications, has gained popularity in recent decades. Wellness practices such as yoga, meditation, and mindfulness have been integrated into mainstream healthcare and promoted as strategies for promoting physical, mental, and emotional wellbeing (Frost, C. 2019 - Columbia University).

In conclusion, the historical evolution of health and wellness practices in the Western world is a complex tapestry of tradition, innovation, and adaptation. From ancient Greece and Rome to the modern era, Western medicine has undergone continuous transformation, driven by scientific discovery, cultural influences, and societal needs. While the biomedical paradigm remains dominant, there is an increasing recognition of the importance of holistic approaches to health.

2.3.4 Evolution of Health & Wellness Practices in the Arab World

The historical evolution of health and wellness practices in the Arab world is a multifaceted journey influenced by a rich tapestry of cultures, traditions, and exchanges with neighboring civilizations. Spanning thousands of years, the Arab world's approach to health and wellness has been shaped by indigenous healing traditions, Islamic medicine, and interactions with Greco-Roman, Persian, Indian, and Chinese medical systems. From ancient civilizations to the modern era, Arab health practices have evolved, blending tradition with innovation and adapting to changing socio-political contexts.

1. Ancient Civilizations (Pre-Islamic Era): Before the advent of Islam, the Arab world was home to ancient civilizations like the Sumerians, Babylonians, and Assyrians, whose medical practices were influenced by Mesopotamian and Egyptian traditions (Grand Valley Journal of

History, 2014). Herbal medicine, ritualistic healing, and surgical techniques were common, with knowledge transmitted orally and through written texts.

2. Islamic Golden Age (8th – 14th Century): The rise of Islam in the 7th century ushered in a period of scientific, cultural, and medical flourishing known as the Islamic Golden Age. Islamic scholars preserved and translated ancient Greek, Roman, Persian, and Indian texts, which were then synthesized with Islamic principles to form a unique medical tradition (National Institutes of Health, 2013). Figures like Al-Razi or Rhazes, Ibn Sina (Avicenna), Ibn Rushd or Averroes, and Ibn al-Nafis were among the medical authorities that made significant contributions to medicine, anatomy, and pharmacology (Abdel Halim, 2011 - Muslim Heritage). Avicenna's "Canon of Medicine" became a foundational text in both Eastern and Western medical education for centuries. Hospitals (bimaristans) were established in major cities, providing medical care, education, and research facilities (Tschanz, 2020).

3. Medieval and Ottoman Period (14th – 19th Century): During the medieval and Ottoman periods, Arab medicine continued to thrive, with scholars building upon the works of their predecessors. Islamic medicine emphasized the holistic approach to health, focusing on preventive measures, hygiene, and dietary regulations prescribed in the Quran and Hadith (Saniotis, 2012). Traditional healing practices like cupping (hijama), herbal medicine, and prophetic medicine (Tibb al-Nabawi) remained popular, alongside the development of surgical techniques and pharmacopeias. Arab physicians played a crucial role in transmitting medical knowledge to Europe during the Renaissance through translations and cultural exchanges.

4. Colonialism and Modernization (19th – 20th Century): The 19th century witnessed the decline of the Ottoman Empire and the rise of European colonial powers in the Arab world

(Britannica.com). Colonial influence brought Western medicine and public health initiatives, leading to the establishment of modern hospitals, medical schools, and healthcare systems. While Western biomedicine gained prominence in urban centers and among the elite, traditional healing practices persisted in rural areas and among marginalized communities. The tension between modernization and cultural preservation shaped the Arab world's healthcare landscape, with efforts made to integrate traditional and modern approaches.

5. Post-Colonial Era and Contemporary Trends (20th Century – Present): The 20th century saw the emergence of independent Arab nations and the promotion of national healthcare systems. Arab countries invested in infrastructure, medical education, and research to address public health challenges and improve healthcare access for their populations.

Today, Arab health and wellness practices reflect a blend of traditional, Islamic, and Western influences. Traditional healing methods like herbal medicine, cupping, and holistic therapies coexist with modern healthcare services, pharmaceuticals, and technology. There is also a growing interest in integrative medicine, combining conventional and complementary approaches to promote holistic wellbeing. In conclusion, the historical evolution of health and wellness practices in the Arab world is characterized by continuity and adaptation, drawing upon ancient traditions, Islamic principles, and global influences. From the Islamic Golden Age to the present day, Arab medicine has made enduring contributions to the advancement of medical science, while preserving cultural heritage and indigenous healing wisdom (Tschanz, 2020). As the Arab world continues to evolve, embracing innovation while honoring tradition will be essential in addressing the healthcare needs of its diverse populations.

Figure 9: Galen, Ibn Sina (Avicenna), and Hippocrates, the three authorities on medical theory and practice in a woodcut from an early 15th-century Latin medical book. Sources: Covington, R., 2007- AramcoWorld. Tschanz, D.W., 2020- Muslim Heritage.

TARKER / BRIDGEMAN IMAGES
The Nur al-Din Bimaristan, a hospital and medical school in Damascus, was founded in the 12th century. Today it is the Museum of Medicine and Science in the Arab World.

BERNARD GAGNON
This plaque on the wall of the Bimaristan Arghun in Aleppo, Syria, commemorates its founding by Emir Arghun al-Kamili in the mid-14th century. Care for mental illnesses here included abundant light, fresh air, running water and music.

BERNARD GAGNON
With its airy, high-ceiling rooms, the Bimaristan Arghun functioned as a hospital until the early 20th century. Later, it became a museum.

Figure 10: Source: Tschanz, D.W., 2017- AramcoWorld.

2.4 Impact of Health and Wellness Trends on Consumption Patterns

The literature on the impact of health and wellness trends on consumption patterns highlights a growing awareness among consumers regarding the importance of health and wellness. Numerous surveys have been conducted to find out how people respond to these changes in terms of consumption preferences and behaviors. Studies and reports have shown a significant rise in the market for plant-based and organic goods. Publicly available data and publications

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indicate that consumers are making more health-conscious decisions and showing a preference for foods that improve general wellbeing and healthy lifestyle. Dietary trends reveal changes in favour of plant-based diets and an increased emphasis on organic food options. According to many vegan societies and consulting firms, the number of people adopting plant-based diets is rapidly rising (National Library of Medicine, 2021).

According to the Global Wellness Institute (GWI), the worldwide expenditure on wellness has reached $5.6 trillion in 2022. Wellness is rapidly gaining popularity as a global lifestyle trend, driving consumer interest in healthy food, alternative medicine, holistic health practices, physical activity, self-care, and stress management. The increasing emphasis on the quality and consumption of food has led to the emergence of health and wellness trends. These trends prioritize reducing stress and improving mental wellbeing, as well as promoting healthy eating, nutrition, weight loss, natural and organic foods, health drinks, sports nutrition, and dietary services (Global Wellness Institute, 2022).

2.5 Role of Technology in Health and Wellness Trends

Technology plays a crucial role in shaping health and wellness trends, offering innovative solutions to help individuals monitor, manage, and improve their wellbeing. An analysis of how various technologies, including wearable devices, mobile apps, telemedicine, and digital health platforms are influencing the industry and driving growth for businesses, is provide below:

Wearable Devices: Wearable devices like fitness trackers, smartwatches, and health monitors enable users to track their physical activity, monitor vital signs, and analyze sleep patterns in real-time (Baballe, 2023). Businesses leverage wearable technology to provide personalized health and fitness recommendations, track user progress, and offer incentives for achieving

wellness goals. Integration with mobile apps and online platforms allows users to access and analyze their health data, facilitating behavior change and adherence to healthy habits.

Mobile Apps: Health and wellness mobile apps offer a wide range of functionalities, including exercise tracking, nutrition monitoring, meditation guidance, and symptom tracking (Matellio, 2024). Businesses develop mobile apps to deliver on-demand access to health resources, connect users with health professionals, and facilitate remote consultations. Personalization features, such as tailored workout plans, customized meal recommendations, and personalized health insights, enhance user engagement and retention.

Telemedicine: Telemedicine platforms enable remote consultations between patients and healthcare providers, offering convenience, accessibility, and cost-effectiveness (Anawade, Sharma and Gahane, 2024). Businesses in the telemedicine space provide virtual healthcare services, including primary care, mental health counseling, specialty consultations, and chronic disease management. Integration with wearable devices and mobile apps allows for seamless data sharing and remote monitoring, improving diagnostic accuracy and treatment outcomes.

Digital Health Platforms: Digital health platforms encompass a wide range of online tools and services, including electronic health records (EHRs), patient portals, wellness portals, and health information websites (van der Wees et al., 2015). Business organizations leverage digital health platforms to streamline administrative processes, enhance communication between patients and providers, and facilitate patient engagement and empowerment. Data analytics capabilities enable businesses to extract actionable insights from large volumes of health data, driving clinical decision-making, population health management, and predictive analytics.

Overall, businesses in the health and wellness industry are leveraging technology to meet consumer needs by providing personalized, accessible, and convenient solutions for improving

health outcomes. By embracing technological innovations such as wearable devices, mobile apps, telemedicine, and digital health platforms, companies can enhance user experiences, optimize healthcare delivery, and drive growth in a rapidly evolving market.

2.6 Influence of Culture on Health and Wellness

The influence of culture on health and wellness trends is profound, shaping individuals' beliefs, behaviors, and practices related to health and wellbeing. Culture encompasses a broad range of factors, including traditions, customs, values, and social norms, which influence how people perceive health, approach illness, and engage in preventive care (FasterCapital, 2024). Recognizing the cultural context of health beliefs and behaviors is essential for promoting culturally sensitive and effective health solutions. An exploration of the influence of culture on health and wellness trends, focusing on traditional healing practices, dietary habits, and cultural perceptions of health is provided below:

Traditional Healing Practices: Traditional healing practices vary widely across cultures and regions. Practices such as Ayurveda in India, Traditional Chinese Medicine (TCM) in China, and Indigenous healing ceremonies in Native American cultures emphasize holistic approaches to health, addressing the interconnectedness of the mind, body, and spirit. Traditional healing provides alternative treatments, herbal remedies, and spiritual support to promote healing and wellbeing (Major Haw Boon Hong R, 2019). The resurgence of interest in traditional healing practices reflects a growing recognition of their efficacy and cultural significance, alongside conventional medical treatments.

Dietary Habits: Dietary habits are deeply influenced by cultural traditions, culinary practices, and societal norms, shaping people's food choices, eating behaviors, and nutritional intake.

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Traditional diets often reflect the availability of local ingredients, agricultural practices, and historical influences, resulting in diverse cuisines characterized by unique flavors, textures, and cooking methods. Cultural dietary patterns, such as the Mediterranean diet, Japanese diet, and vegetarian diets in South Asia, have been associated with health benefits, including reduced risk of chronic diseases and improved longevity (Watanabe et al., 2014). Cultural factors such as food taboos, religious practices, and communal dining rituals also influence dietary habits and meal patterns, reinforcing cultural identity and social cohesion.

Cultural Perceptions of Health: Cultural perceptions of health encompass beliefs, attitudes, and values regarding the nature of health, illness, and wellness. Cultural models of health often encompass a holistic view of wellbeing, considering physical, mental, emotional, and spiritual dimensions. Concepts of health and illness may be influenced by cultural constructs such as balance, harmony, and energy flow, as seen in systems like Ayurveda and Traditional Chinese Medicine. Cultural factors also influence help-seeking behaviors, treatment preferences, and attitudes towards healthcare providers, impacting healthcare utilization and access.

2.7 Increased Emphasis on Sustainability and Eco-friendly Practices

The increasing emphasis on sustainability and eco-friendly practices in the health and wellness industry reflects a growing awareness of the interconnectedness between human health and environmental wellbeing (Ronen and Kerret, 2020 - National Institutes of Health). Businesses that embrace sustainability not only contribute to positive environmental outcomes but also enhance their brand reputation, customer loyalty, and long-term viability in a rapidly evolving market. An exploration of key areas where sustainability is gaining traction is described below:

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Organic Products: Organic farming prioritizes environmentally-friendly practices such as crop rotation, composting, and natural pest management. Organic agriculture avoids the use of synthetic pesticides, herbicides, and fertilizers, reducing chemical inputs and minimizing environmental impact (Food and Agriculture Organization- www.fao.org/organicag). Consumers are increasingly seeking organic products due to concerns about pesticide residues, environmental sustainability, and perceived health benefits.

Green Packaging: Green packaging refers to environmentally-friendly packaging materials and practices that minimize waste and resource consumption (Bulk Bag Reclamation, 2019). Biodegradable, compostable, and recyclable materials are favored over conventional plastics and non-renewable resources. Companies in the health and wellness industry are adopting sustainable packaging solutions, such as compostable pouches, recyclable bottles, and minimalistic packaging designs, to reduce their carbon footprint and meet consumer demand for eco-friendly products (Redan, 2023).

Ethical Sourcing: Ethical sourcing involves sourcing ingredients and raw materials in a socially responsible and environmentally sustainable manner. This includes considerations such as fair-trade practices, labor rights, biodiversity conservation, and community engagement (Lupo, 2015). Companies are increasingly transparent about their supply chains and procurement practices, providing consumers with information about the origin and sustainability of ingredients used in their products (Newcastle Systems, 2023).

Certifications and Standards: Certifications such as USDA Organic, Fair Trade Certified, and Rainforest Alliance Certified provide assurance to consumers that products meet certain environmental and social standards. These certifications validate claims related to organic

farming practices, ethical sourcing, and sustainable production methods, helping consumers make informed purchasing decisions.

Corporate Social Responsibility Initiatives: Many health and wellness companies are embracing corporate social responsibility (CSR) initiatives to demonstrate their commitment to sustainability, ethical practices, and social impact. CSR initiatives may include initiatives such as carbon offset programs, waste reduction efforts, community engagement projects, and charitable donations to support environmental and social causes (Reckmann, 2023).

Consumer Demand and Awareness: Consumer preferences are shifting towards sustainable and eco-friendly products, driven by concerns about environmental degradation, climate change, and social responsibility. Health-conscious consumers are increasingly mindful of the environmental impact of their purchasing choices and seek products that align with their values and beliefs. Companies are responding to this demand by incorporating sustainability into their brand identity, marketing strategies, and product offerings (Redan, 2023).

2.8 Nutritional Wellness

Good nutrition is the foundation of a balanced and healthy lifestyle. It provides our bodies with nourishment, promotes general health, and is essential in averting chronic illnesses. A balanced diet i.e., consuming a wide range of nutrient-rich foods like fresh fruits, vegetables, whole grains, lean proteins, and healthy fats, is one of the fundamentals of nutritional wellness for a nourished and vibrant life. Portion control is also essential for maintaining a healthy weight and avoiding overeating. Drinking enough water throughout the day to stay hydrated, helps in digestion and the absorption of nutrients. Including necessary nutrients and limiting processed foods that contain harmful fats, added sugars, and artificial additives are also among nutritional wellness practices (Academy of Nutrition and Dietetics, 2023).

The New Food Pyramid

The U.S. Department of Agriculture released a new food pyramid, which breaks food categories into a spectrum to emphasize variety. Exercise was introduced as a component of the food pyramid, and 12 individualized intake profiles were added.

Exercise
- Adults should be physically active for at least 30 minutes most days of the week, children for 60 minutes.
- Sixty to 90 minutes of daily physical activity may be needed to prevent weight gain or sustain weight loss.

Old food pyramid
- Presented food groups as a hierarchy, with grains as the base of a healthy diet, and each group having a suggested number of servings.
- Emphasized limits on fats, oils and sweets, which were represented as the tip of the pyramid.

Oils
- Most fat should be from fish, nuts and vegetable oils.
- Limit solid fats, such as butter, margarine or lard.
- Keep consumption of saturated fats, trans fats and sodium low.
- Choose foods low in added sugar.

CATEGORY	Grains	Vegetables	Fruits	Milk	Meat and beans	
RECOMMENDATION	Half of all grains consumed should be whole grains.	Vary the types of vegetables you eat.	Eat a variety of fruits. Go easy on juices.	Eat low-fat or fat-free dairy products.	Eat lean cuts, seafood and beans. Avoid frying.	Recommended nutrient intakes at 12-calorie levels can be found on *mypyramid.gov.*
DAILY AMOUNT *Based on a 2,000 calorie diet.*	6 oz.	2.5 cups	2 cups	3 cups	5.5 oz.	

SOURCE: U.S. Department of Agriculture | The Washington Post

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https://www.washingtonpost.com/wp-srv/nation/daily/graphics/diet_042005.html

Figure 11: The New Food Pyramid – Source: U.S. Department of Agriculture | The Washington Post

2.9 Social Connectedness

Social connectedness influences our minds, bodies, and behaviors which in turn affects our life expectancy and general health (Centers for disease Control and Prevention). Research shows that social connectedness can help achieve better health and improved wellbeing. People are more likely to make good decisions and experience better results for their mental and physical health when they are socially connected and have supportive connections. Our health and wellbeing can be significantly impacted by the interactions we have with our family and friends. Social connectedness is characterized by the number and types of relationships a person has, having regular social exchanges, support from family and friends, a sense of belonging and feeling loved, and appreciated by others (Centers for disease Control and Prevention).

2.10 Fitness Trends and Social Media Influence

The evolution of fitness trends reflects societal shifts in health consciousness and cultural preferences. Initially, fitness was primarily associated with bodybuilding and aerobic exercise in the 20th century. However, in recent decades, there has been a significant diversification of fitness practices, including yoga, Pilates, functional training, and HIIT. This reflects a broader understanding of holistic health and wellness, emphasizing not just physical fitness but also mental and emotional wellbeing. Additionally, technology has played a significant role, with the rise of wearable fitness trackers and apps, making it easier for people to monitor and manage their health goals. Studies explore the influence of fitness trends on consumers, indicating a surge in demand for fitness-related products and services (Read, 2024). The role of social media in challenging and reshaping fitness and wellness lifestyles and practices is of supreme importance in view of its strong impact on disseminating fitness- and wellness-related information and influencing consumer choices.

2.11 Market Adaptation

Market adaptation is among strategic priorities and decisions for businesses to adapt to the changing landscape, emphasizing the importance of understanding and aligning with health trends to meet consumer expectations. Consumers are increasingly moving towards eating healthy, and leading healthy lifestyles that support fitness and lower the risk of diseases. The shift in demand towards healthy products is remarkably visible and reflected through their fast-growing markets. The protein bars market is among the fastest-growing markets in the world (360 Industry Insights, 2023). The market for health drinks is another one of the fastest-growing in the world (Mordor Intelligence Industry Report, 2023).

2.12 Global Health and Wellness Market

The global health and wellness market encompass a wide range of products and services aimed at promoting physical, mental, and emotional wellbeing. A comprehensive analysis of the market, including market size, growth projections, key players, regional trends, and opportunities for expansion is described below.

1. Market Size and Growth Projections

The global health and wellness market is substantial and continues to grow rapidly. According to "Global Wellness Institute", a wellness market post-pandemic is growing 12% annually since 2020. Global wellness economy was valued at $5.6 trillion in 2022 and is projected to reach $8.5 trillion by 2027. Factors driving market growth include increasing consumer awareness of health and wellness, rising disposable incomes, growing aging populations, and a shift towards preventive healthcare (Global Wellness Institute, 2023).
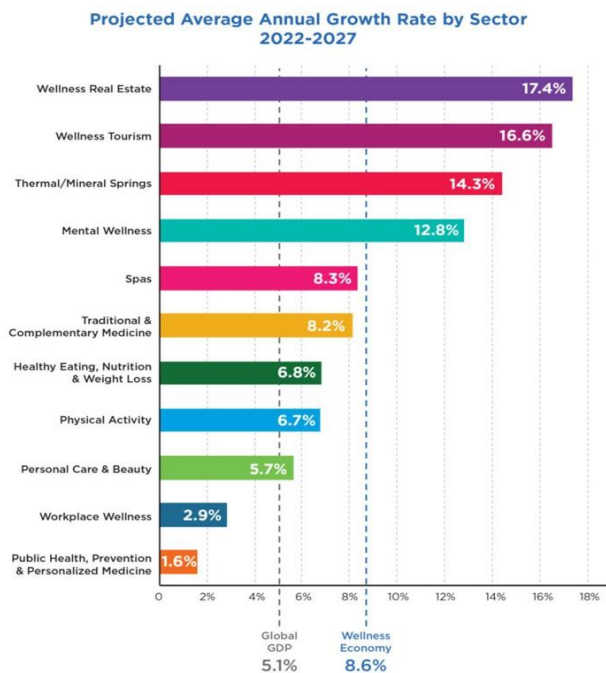
Figure 12: Projected annual wellness economy growth rate by sector. Source: Global Wellness Institute and IMF

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2. Key Players

The global health and wellness industry is highly fragmented, with numerous companies operating across various segments. Major players include:

Abbott Laboratories

Amway Corporation

Bayer AG

Curefit Healthcare Pvt Ltd

Danone SA

David Lloyd Leisure Ltd

Herbalife International of America inc

Johnson & Johnson

Letterone Investment Holidays SA

L'oreal SA

Nestle SA

Pfizer Inc.

Procter & Gamble Company

Unilever PLC

Vitabiotics Ltd

These companies operate in diverse sectors, including food and beverages, pharmaceuticals, personal care, fitness, and wellness services (Imarc Group.com, 2023).

3. Regional Trends

-North America: The largest market for health and wellness products and services, driven by increasing consumer demand for natural and organic products, fitness and nutrition trends, and rising healthcare expenditures.

-Europe: Growing interest in preventive healthcare, clean label foods, and plant-based diets, coupled with stringent regulations promoting health and wellness, are fueling market growth.

-Asia Pacific: Rapid urbanization, rising middle-class populations, and growing health consciousness are driving demand for health and wellness products and services in countries like China, India, and Japan.

-Latin America: Increasing disposable incomes, changing dietary habits, and a growing focus on personal wellness are driving market expansion in countries like Brazil and Mexico.

-Middle East and Africa: Rising health awareness, increasing healthcare spending, and government initiatives promoting wellness tourism and healthy lifestyles are driving market growth in the region.

4. Emerging Markets and Opportunities for Expansion

-Asia Pacific: Emerging markets in Asia Pacific, particularly China and India, present significant growth opportunities for health and wellness companies. Rapid urbanization, a growing middle class, and increasing health consciousness create demand for a wide range of products and services.

-Latin America: Countries in Latin America, such as Brazil and Mexico, offer opportunities for expansion due to rising disposable incomes, changing lifestyles, and a growing focus on personal health and wellness.

-Middle East and Africa: Emerging markets in the Middle East and Africa present opportunities for expansion in areas such as wellness tourism, dietary supplements, and fitness services, driven by increasing health awareness and government initiatives promoting healthy lifestyles.

In conclusion, the global health and wellness market is poised for continued growth, driven by increasing consumer demand, changing lifestyles, and expanding market opportunities in emerging regions. Businesses can capitalize on these trends by offering innovative products and services that cater to evolving consumer preferences and address unmet needs in the health and wellness space.

2.13 Regulatory Landscape

The regulatory landscape governing health and wellness products and services is complex and varies significantly between countries. FDA regulations, labeling requirements, and international standards are the main references driving the regulatory landscape. The Food and Drug Administration (FDA) oversees the regulation of food, dietary supplements, drugs, cosmetics, and medical devices in the United States. Dietary supplements, including vitamins, minerals, herbal products, and other botanicals, are regulated under the Dietary Supplement Health and Education Act (DSHEA) of 1994. Under DSHEA, dietary supplements are considered as food and are subject to specific labeling requirements, including ingredient lists, nutritional information, and health claims. The FDA also regulates health claims and structure/function claims made on dietary supplement labels, ensuring they are supported by scientific evidence. Labeling requirements for health and wellness products vary depending on the type of product and jurisdiction. In the United States, the FDA mandates that labels accurately reflect the contents of the product and provide necessary information for consumers

to make informed decisions. Labels must include the product name, net quantity of contents, ingredient list, nutrition facts (for food and dietary supplements), and any required health or structure/function claims. International standards, such as those established by the Codex Alimentarius Commission, may also influence labeling requirements for products traded internationally. International standards play a crucial role in harmonizing regulations and facilitating trade in health and wellness products. The Codex Alimentarius Commission, jointly established by the World Health Organization (WHO) and the Food and Agriculture Organization (FAO), develops international food standards, guidelines, and codes of practice. Organizations such as the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) developed standards related to quality, safety, and performance of products and services, including those in the health and wellness industry. Regulatory bodies in different countries may reference international standards when developing their own regulations, promoting consistency and compatibility between national regulatory frameworks.

Navigating the regulatory landscape governing health and wellness products and services requires a thorough understanding of applicable laws, regulations, and standards. Businesses operating in this industry must ensure compliance with regulatory requirements to protect consumer health and safety, maintain market access, and build trust with consumers. Additionally, staying informed about emerging regulatory trends and updates is essential for adapting to evolving regulatory requirements and market dynamics.

2.14 Collaborations in the H&W Ecosystem

Collaborations and partnerships between businesses and other stakeholders in the health and wellness ecosystem, including healthcare providers, government agencies, NGOs, and research

institutions, play a critical role in driving innovation, improving healthcare delivery, and addressing complex health challenges. Below is an analysis of the benefits and challenges of these partnerships:

1- Benefits

-Access to Expertise and Resources: Collaborating with healthcare providers, research institutions, and NGOs provides businesses with access to specialized expertise, resources, and facilities. This can accelerate research and development efforts, improve product quality, and enhance service delivery.

-Innovation and Research Advancement: Partnerships with research institutions and academic organizations facilitate the exchange of ideas, knowledge, and research findings. Collaborative research projects can lead to the development of new products, treatments, and technologies that benefit both businesses and society.

-Market Expansion and Reach: Partnerships with healthcare providers, government agencies, and NGOs enable businesses to reach new markets, expand their customer base, and increase brand visibility. These collaborations may involve joint marketing campaigns, distribution agreements, or co-branded initiatives that leverage the strengths of each partner.

-Enhanced Credibility and Trust: Collaborating with reputable healthcare providers, government agencies, and NGOs enhances a business's credibility and trustworthiness in the eyes of consumers, investors, and regulators. Partnerships with trusted organizations can validate the quality and effectiveness of products and services, leading to increased customer loyalty and brand reputation.

2- Challenges

-Alignment of Goals and Objectives: One of the primary challenges of partnerships is aligning the goals, objectives, and priorities of different stakeholders. Misalignment can lead to conflicts of interest, delays in decision-making, and difficulty achieving mutually beneficial outcomes.

-Legal and Regulatory Hurdles: Collaborations between businesses and other stakeholders may be subject to legal and regulatory requirements, including intellectual property rights, data privacy regulations, and healthcare laws. Navigating these complexities requires careful planning, legal expertise, and compliance with relevant laws and regulations.

-Resource Allocation and Investment: Partnerships often require significant investments of time, money, and resources from all parties involved. Businesses may need to allocate resources to support collaborative efforts, such as funding research projects, sharing data, or providing technical expertise.

-Communication and Coordination: Effective communication and coordination are essential for successful partnerships. However, differences in organizational culture, communication styles, and decision-making processes can create barriers to collaboration. Clear communication channels, regular meetings, and defined roles and responsibilities can help mitigate these challenges.

-Risk Management: Collaborations involve inherent risks, including reputational risks, financial risks, and legal risks. Businesses must assess and manage these risks through robust risk management processes, contractual agreements, and contingency plans.

Despite these challenges, collaborations and partnerships between businesses and other stakeholders in the health and wellness ecosystem offer significant opportunities for innovation, market expansion, and improving health outcomes. By addressing the challenges and

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leveraging the benefits of partnerships, businesses can create sustainable value and make meaningful contributions to the health and well-being of individuals and communities.

2.15 Latest Health and Wellness Trends and Practices

Health and wellness trends are evolving and gaining popularity across the world. Identifying the latest widespread trends will provide a significant contribution to the research as background data:

- Organic, protein, sugar-free: A growing shift to organic, healthy snacking, protein bars, health drinks, functional drinks, sugar-free, low-fat, and low calories (Food Engineering, 2023) – (360 Industry Insights, 2023) – (Mordor Intelligence Industry Report, 2023) – (Borderless Access, 2021).

- Plant-Based Diets: Plant-based eating continues to gain momentum, driven by concerns about health, sustainability, and animal welfare (Innova Market Insights, 2024).

- Functional Fitness: Workouts that focus on improving movement patterns, strength, and flexibility rather than just aesthetics is gaining popularity, such as HIIT (High-Intensity Interval Training), Pilates, and yoga (Mayo Clinic, 2024).

- Mental Health Focus: There is a growing recognition of the importance of mental wellbeing, with practices like mindfulness, meditation, and therapy gaining traction (Lopes, et al., 2022).

- Sleep Optimization: People are paying more attention to the quality of their sleep. Getting sufficient amounts of sleep is vital for healthy life (National Institutes of Health, 2021).

- Holistic Wellness: The holistic approach to health, which considers physical, mental, emotional, and spiritual aspects, is increasingly embraced (Follaine Health & Wellness, 2023).

- Personalized Nutrition: Tailoring diets to individual needs and preferences, often with the help of technology is becoming more prevalent (FasterCapital - *https://fastercapital.com/*).

2.16 Mental Health Practices and Benefits

According to the World Health Organization (WHO) "Mental health is a state of mental wellbeing that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community". Mental health practices encompass a range of activities and habits aimed at maintaining or improving mental wellbeing. These practices are crucial for managing stress, anxiety, depression, and other mental health challenges. Common mental health practices and their benefits include:

- Mindfulness and Meditation: Mindfulness involves paying attention to the present moment without judgment, while meditation often involves focusing attention on a particular object, thought, or activity. Both practices can reduce stress, improve focus, enhance self-awareness, and promote emotional regulation.

- Physical Activity: Regular exercise has been shown to have numerous mental health benefits, including reducing symptoms of depression and anxiety, boosting self-esteem, and improving sleep quality. Exercise also releases endorphin, which are natural mood lifters, reduce pain and emotional stress and improve feelings of wellbeing.

- Healthy Eating: A balanced diet rich in fruits, vegetables, whole grains, lean proteins, and healthy fats can support brain health and mood regulation. Nutrient deficiencies, such as omega 3, fatty acids and certain vitamins, have been linked to an increased risk of mental health disorders.

- Quality Sleep: Good sleep hygiene habits which include keeping a regular sleep schedule, setting up a comfortable sleeping time, and abstaining from stimulants before bed, can enhance mood, mental health, and cognitive performance.

- Social Connectedness: Having strong bonds with friends and family can boost resilience to stress, lessen feelings of isolation and loneliness, and offer emotional support.

- Stress Management Techniques: The detrimental effects of stress on mental health can be lessened by learning and putting into practice stress-reduction strategies notably progressive muscle relaxation, deep breathing exercises, and time management techniques.

- Seeking Professional Help: When required, obtaining assistance from mental health specialists like therapists, counsellors, or psychiatrists can give people the means and means to deal with particular mental health issues and create coping mechanisms.

Incorporating these mental health practices into daily life can help individuals cultivate resilience, improve emotional wellbeing, and enhance overall quality of life (Winter, 2023). It's essential to find a combination of practices that work best for each individual and to prioritize self-care as part of a holistic approach to health and wellness.

2.17 Emotional Wellbeing

Emotional wellbeing is part of health and wellness concept and practice. It's an important aspect of overall health and wellness, encompassing the ability to understand and manage one's emotions effectively (Resnick, 2021). It involves having a positive outlook on life, coping with stress and adversity, maintaining satisfying relationships, and experiencing a sense of fulfillment and purpose. By prioritizing emotional wellbeing as part of the health and wellness concept and incorporating practices that support emotional health into daily life, individuals

can enhance their overall quality of life, resilience, and ability to navigate life's challenges effectively. The National Center for Emotional Wellness defines emotional wellness or wellbeing as "an awareness, understanding and acceptance of our feelings, and our ability to manage effectively through challenges and change" (MedicalNewsToday, 2024).

2.17.1 Emotional Wellbeing Practices

- Emotional Awareness: Being in tune with one's emotions and understanding their triggers is essential for emotional wellbeing. This involves recognizing and acknowledging a wide range of feelings, from joy and excitement to sadness and anger, without judgment.

- Emotional Regulation: Effective emotional regulation involves the ability to manage and express emotions in healthy ways. This may include practices such as deep breathing, mindfulness, and cognitive reframing to cope with challenging emotions and situations.

- Resilience: Resilience refers to the ability to bounce back from unpleasant situation. Cultivating resilience involves maintaining a positive outlook, fostering social support networks, and adapting to changing situations.

- Positive Relationships: Healthy relationships are crucial for emotional wellbeing. Maintaining close connections with friends, family, and community members provides opportunities for emotional expression, validation, and companionship.

- Self-Care: Prioritizing self-care activities that nurture physical, mental, and emotional wellbeing is essential for overall health and wellness. This may include activities such as exercise, relaxation techniques, hobbies, and spending time in nature.

- Purpose and Meaning: Having a sense of purpose and meaning in life contributes to emotional wellbeing. This may involve setting meaningful goals, engaging in activities that

align with one's values and interests, and contributing to something larger than oneself, such as volunteering or pursuing passions.

- Seeking Support: Recognizing when additional support is needed and seeking help from mental health professionals or support groups is a sign of strength and self-awareness. Therapy, counseling, and peer support can provide valuable tools and resources for improving emotional wellbeing.

2.17.2 The Impact of Poor Emotional Wellbeing

Inability to maintain a happy emotional state can result in unfavorable outcomes, i.e., lower immunity due to increased stress, hypertension, increased illness from heart issues to psychiatric problems, relationship issues, difficulties at work, and trouble concentrating (MedicalNewsToday, 2024).

2.18 Relationship Between Psychological and Emotional Wellbeing

Psychological wellbeing and emotional wellbeing are closely intertwined aspects of overall mental health, but they encompass distinct dimensions and experiences. Understanding the relationship between the two can provide a better knowledge into the complexities of mental health and how different factors contribute to overall wellbeing. Psychological wellbeing refers to a person's overall evaluation and satisfaction with life, including their sense of purpose, personal growth, autonomy, and positive relationships. It encompasses broader aspects of mental health beyond just emotions, such as cognitive functioning, self-esteem, and existential fulfillment. Emotional wellbeing, on the other hand, focuses specifically on the ability to recognize, understand, and manage one's emotions effectively. It involves experiencing a range

of emotions in a balanced and healthy way, coping with stress and adversity, and maintaining a positive outlook on life.

While psychological wellbeing encompasses emotional wellbeing, emotional health is just one component of psychological wellbeing. Other factors, such as cognitive processes, social connections, and existential fulfillment, also play significant roles in shaping psychological wellbeing. However, the relationship between psychological wellbeing and emotional wellbeing is bidirectional and interdependent.

- Emotional wellbeing can influence psychological wellbeing: How individuals experience and manage their emotions can impact their overall evaluation of life satisfaction and fulfillment. Those who have a greater ability to regulate their emotions and experience positive emotions more frequently may report higher levels of psychological wellbeing.

- Psychological wellbeing can influence emotional wellbeing: Factors such as a sense of purpose, personal growth, and positive relationships can contribute to emotional resilience and wellbeing. Individuals who feel a sense of meaning in their lives, have healthy self-esteem, and maintain supportive relationships may be better equipped to cope with emotional challenges and experience greater emotional wellbeing.

While psychological wellbeing encompasses a broader range of factors beyond emotions, emotional wellbeing is an integral component of overall mental health and plays a significant role in shaping one's psychological wellbeing. Both dimensions are interconnected and contribute to an individual's overall sense of fulfillment, resilience, and quality of life.

2.19 The Need for Emotional Wellbeing

Emotional wellbeing needs can vary across different socio-demographic profiles due to unique life experiences, cultural influences, societal expectations, and individual characteristics. Understanding these diverse emotional wellbeing needs across different socio-demographic profiles is essential for developing tailored interventions, support systems, and resources to promote mental health equity and resilience in diverse communities. It highlights the importance of culturally competent and inclusive approaches to addressing emotional wellbeing challenges.

Below is a brief overview of how emotional wellbeing needs may differ across various demographics, namely Age, gender, ethnicity and culture, professional and socioeconomic profiles.

1- Age Group:

Children and Adolescents	Emotional wellbeing needs for children and adolescents may include support for coping with academic pressures, social challenges, and identity development
Adults	For adults, they involve managing work-life balance, navigating relationships, and addressing midlife transitions.
Older Adults	For older adults, emotional wellbeing needs revolve around coping with retirement, adjusting to physical health changes, and maintaining social connections to prevent loneliness and isolation.

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2- Gender:

Women	For women, emotional wellbeing needs may include addressing gender-specific stressors such as caregiving responsibilities, societal expectations, and navigating gender-based discrimination.
Men	For men, emotional wellbeing needs involve overcoming societal pressures related to masculinity, seeking support for mental health challenges, and fostering emotional expression and vulnerability.

3- Ethnicity and Culture:

Cultural Background	May be influenced by cultural values, beliefs, and practices related to emotions, mental health, and help-seeking behaviors. For example, certain cultures may prioritize collectivism and family support, while others may stigmatize mental health issues.
Minority Groups	Emotional wellbeing needs involve addressing experiences of discrimination, acculturation stress, and navigating cultural identity.

4- Professional Profile:

High-Stress Professions	Emotional wellbeing needs include strategies for managing job-related stress, burnout prevention, and fostering work-life balance.
Creative Professions	For creative professionals, emotional wellbeing needs involve managing performance pressure, coping with rejection, and maintaining self-esteem in a competitive field.
Service-Oriented Professions	Emotional wellbeing needs related to service-oriented professions revolve around compassion fatigue, vicarious trauma, and self-care practices to prevent emotional exhaustion.

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5- Socioeconomic Status:

Low-Income Individuals	Emotional wellbeing needs for low-income individuals may include access to affordable mental health services, resources for basic needs, and addressing financial stressors.
High-Income Individuals	For high-income individuals, emotional wellbeing needs involve managing high-pressure environments, navigating career transitions, and finding fulfillment beyond material success.

2.20 Weight Management Trends & Motivations

The landscape of weight management has seen significant evolution in recent years. The evolving trends in weight management reflect a broader cultural shift towards a more balanced and inclusive approach to health and wellbeing (hub.health, 2023). A summary of these trends and their underlying factors is described below:

1. Holistic Approach: There's a shift towards a holistic view of health, where weight management is seen as just one aspect of overall wellbeing. This includes factors like mental health, stress management, sleep quality, and nutrition.

2. Body Positivity: The body positivity movement has gained momentum, encouraging people to love and accept their bodies regardless of size (Griffin, Bailey and Lopez, 2022). This trend promotes self-care and self-love rather than pursuing unrealistic beauty standards.

3. Focus on Sustainable Practices: Crash diets and extreme workout routines are being replaced by sustainable lifestyle changes. People are opting for long-term solutions like balanced diets, regular exercise, and mindful eating habits.

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4. Personalized Approaches: Thanks to advances in technology and nutrition science, there's a growing emphasis on personalized approaches to weight management. This includes tailored meal plans and fitness lifestyles.

5. Shift towards Plant-Based Diets: Many people are adopting plant-based diets for weight management, citing benefits such as increased energy, improved digestion, and weight loss. Plant-based eating is also seen as more environmentally friendly (Sabate and Soret, 2014).

6. Online Support and Accountability: With the rise of social media and health apps, consumers are finding support and accountability online. Whether it's through fitness communities, wellness influencers, or diet tracking apps, digital platforms play a significant role in weight management.

7. Incorporating Mindfulness: Mindfulness practices, such as meditation and mindful eating, are being integrated into weight management routines (Satrazemis, 2019). These practices help people, mainly women, become more aware of their eating habits, emotions, and triggers for overeating.

8. Health at Every Size (HAES): The HAES movement challenges the notion that weight is the sole determinant of health. It promotes health-enhancing behaviors, such as intuitive eating, joyful movement, and self-care, regardless of body size.

2.21 Contribution of Social Media to Health and Wellness Awareness

Social media plays a significant role in expanding health and wellness awareness by providing platforms for sharing information, connecting individuals with similar health goals, and facilitating access to resources and support networks (WorldNoor, 2023). Through social

media, individuals can easily access a wide range of health-related content, including tips for physical fitness, mental health support, nutritional advice, and preventive care information. Furthermore, social media allows for the dissemination of user-generated content, enabling individuals to share their personal health journeys, success stories, challenges, and strategies for overcoming obstacles. This fosters a sense of community and solidarity among individuals striving to improve their health and wellbeing (Saravanan et al., 2023).

Health and wellness influencers and organizations utilize social media platforms to promote evidence-based practices, debunk myths, and raise awareness about various health issues. This helps to educate and empower individuals to make informed decisions about their health and adopt healthier lifestyles. Additionally, social media platforms often feature interactive features such as polls, quizzes, live streams, and Q&A sessions, which engage users and encourage participation in health-related discussions. These interactive elements facilitate dialogue, promote knowledge-sharing, and foster a sense of accountability among users. Below is a summary of social media contribution ways to expanding health and wellness awareness and practice:

1. Information Dissemination: Social media platforms serve as channels for disseminating health-related information, including preventive measures, symptoms, treatment options, and lifestyle recommendations. This enables individuals to access a wide range of health resources conveniently.

2. Community Building: Social media facilitates the formation of online communities centered around specific health topics or conditions. These communities provide support, encouragement, and shared experiences, fostering a sense of belonging and reducing feelings of isolation among individuals dealing with health issues.

3. Health Promotion Campaigns: Health organizations, advocacy groups, and healthcare professionals utilize social media to launch health promotion campaigns. These campaigns raise awareness about important health issues, encourage healthy behaviors, and advocate for public health initiatives, reaching a large audience quickly and cost-effectively.

4. Peer Support and Sharing: Social media platforms allow individuals to share their health and wellness journeys, successes, challenges, and tips with others. This peer-to-peer support fosters motivation, accountability, and solidarity, empowering individuals to make positive lifestyle changes and adhere to treatment plans.

5. Access to Experts and Resources: Social media provides access to healthcare professionals, experts, and reputable health organizations. Through platforms like Twitter, Facebook, and LinkedIn, individuals can interact with healthcare providers, ask questions, seek advice, and access credible health information and resources.

6. Real-Time Updates and News: Social media enables real-time sharing of health-related news, updates, and research findings. This timely information keeps individuals informed about emerging health trends, outbreaks, treatment breakthroughs, and policy changes, empowering them to make informed decisions regarding their health and wellbeing.

7. Behavioral Influence: Social media influences health-related behaviors and attitudes through peer influence, social norms, and persuasive messaging. By leveraging social networks and influential figures, health campaigns can effectively promote positive behaviors and debunk myths or misinformation.

Overall, social media plays a vital role in expanding health and wellness awareness and practice by facilitating information sharing, community building, peer support, and behavior change interventions on a global scale. While it's a powerful tool for fostering community engagement, and promoting positive behavior changes, it's important for users to critically evaluate the credibility of sources and information encountered on social media and consult healthcare professionals for personalized advice and guidance.

2.22 The Philosophical View Behind the Adoption of Wellness Concept

The adoption of the wellness concept reflects a shift towards thinking about health, embracing not just physical wellbeing, but also mental, emotional, and social aspects. Philosophically, it aligns with ideas from various traditions such as stoicism, which emphasizes self-care and inner tranquility (Internet Encyclopedia of Philosophy), and utilitarianism, which promotes actions that maximize overall wellbeing (Stanford Encyclopedia of Philosophy, 2014). This shift has empowered individuals to take control of their health, leading to a more proactive approach to self-care and a recognition of the interconnectedness between personal wellness and societal flourishing. As people prioritize wellness, it fosters a culture of mindfulness, compassion, and resilience, which can have ripple effects on societal norms and structures, promoting healthier lifestyles and more sustainable communities.

2.23 Criticism of Health Consciousness

Criticism of health-consciousness often revolves around several key points, such as obsession, anxiety, orthorexia, body image, high cost, commercialization and profit motives. Major critics are summarized below.

- Obsession and Anxiety: Some critics argue that excessive focus on health can lead to obsession and anxiety. Constantly worrying about what one eats, how much they exercise, and whether they're meeting certain health goals can create stress and detract from overall wellbeing.

- Orthorexia: Orthorexia refers to an unhealthy obsession with eating only healthy foods. Critics argue that this mindset can lead to restrictive eating habits, social isolation, and even malnutrition if certain food groups are eliminated (Goodwin, Davidson and Petre, 2022).

- Body Image Concerns: Health-consciousness can sometimes be intertwined with unrealistic body image ideals. This can lead to dissatisfaction with one's body, disordered eating patterns, and low self-esteem.

- Commercialization: The health and wellness industry is vast and profitable, leading some critics to argue that much of the health-conscious messaging is driven more by profit motives than genuine concern for people's wellbeing. This can result in misleading advertising, the promotion of unnecessary supplements or products, and exploitation of people's insecurities.

- Privilege and Accessibility: Engaging in health-conscious behaviors, such as purchasing organic foods or gym memberships, can be costly. Critics argue that this creates disparities in health outcomes, as those with lower incomes may not have access to the same resources and opportunities for healthy living.

Despite these criticisms, it's important to note that health-consciousness also has many perceived benefits, including promoting physical wellbeing, preventing chronic diseases, improving mood and energy levels, and fostering a sense of control over one's health. However, striking a balance between being mindful of health without becoming consumed by it is key to ensuring overall wellbeing.

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2.24 The Impact of Globalization on Emerging Health & Wellness Trends

Globalization has significantly influenced emerging health and wellness trends by facilitating the spread of information, products, and practices across borders. This has led to the adoption of diverse cultural health practices, such as yoga and meditation, on a global scale. Additionally, globalization has fueled the demand for organic, sustainable, and ethically sourced products, driving the growth of the wellness industry.

Globalization, with its interconnectedness of economies, cultures, and information, has profoundly shaped emerging health and wellness trends worldwide. This intricate process has been driven by various factors, including technological advancements, increased international trade, cultural exchange, and changing consumer behaviors. In this detailed analysis, we will explore the multifaceted impact of globalization on the evolution of health and wellness trends, covering key aspects such as cultural exchange, technological innovation, market dynamics, societal implications, and environmental sustainability (Martens and Hilderink, 2005).

1. Cultural Exchange and Diversity of Practices

Globalization has facilitated the exchange of health and wellness practices from diverse cultures, leading to a rich tapestry of approaches to wellbeing. Practices such as traditional Chinese medicine, Ayurveda from India, and indigenous healing methods have gained popularity beyond their places of origin. For example, acupuncture, a traditional Chinese medical practice involving the insertion of thin needles into specific points on the body, has become widely accepted in Western countries as a complementary therapy for various health conditions.

Similarly, yoga and meditation, originating from ancient Indian traditions, have transcended cultural boundaries to become mainstream practices in many parts of the world. The widespread adoption of these practices can be attributed to their perceived effectiveness in promoting physical health, mental wellbeing, and stress reduction. Globalization has facilitated the dissemination of information about these practices through books, media, and the internet, making them accessible to a global audience.

2. Technological Innovation and Access to Information

Advancements in technology and the internet have played a pivotal role in the globalization of health and wellness trends. The growing use of smartphones, wearable devices, and health-tracking apps has enabled individuals to track and control their health and wellbeing. These technologies provide access to a wealth of information, enabling people to learn about different health modalities, track their fitness goals, and connect with like-minded individuals worldwide. Furthermore, telemedicine and online wellness platforms have expanded access to healthcare services, particularly in underserved or remote areas. Patients can now consult with healthcare professionals virtually, receive personalized health advice, and access digital therapeutics for managing chronic conditions. This increased accessibility has democratized healthcare to some extent, breaking down geographical barriers and reducing disparities in healthcare access.

3. Market Dynamics and Commercialization of Wellness

The globalization of health and wellness trends has spurred the growth of a multi-billion-dollar economy encompassing wellness products and services (Global Wellness Institute, 2023). From organic food products and natural skincare to boutique fitness studios and wellness retreats, there is a vast array of offerings catering to the growing demand for holistic wellbeing. This

commodification of wellness is driven by consumer preferences for healthier, more sustainable products, as well as the influence of social media and celebrity endorsements. However, the commercialization of wellness has also raised concerns about authenticity, transparency, and ethical practices within the industry. With the proliferation of wellness influencers and brands promoting unrealistic beauty standards, there is a risk of misinformation and exploitation. Furthermore, the commodification of wellness may perpetuate inequalities, as access to premium wellness experiences often comes with a hefty price tag, excluding marginalized communities from participation.

4. Societal Implications and Public Health

Globalization has profound implications for public health, both positive and negative. On the one hand, the exchange of health information and best practices has facilitated global efforts to address pressing public health challenges, such as infectious diseases, non-communicable diseases, and mental health disorders. Collaborative initiatives between countries and international organizations have led to advancements in healthcare infrastructure, disease prevention, and health education programs (Jit et al., 2021).

On the other hand, globalization has also contributed to the spread of unhealthy lifestyles, including sedentary behavior, poor dietary habits, and substance abuse. The adoption of Western dietary patterns high in processed foods, coupled with reduced physical activity levels, has led to a global rise in obesity and related chronic diseases. Additionally, the globalization of fast food chains and sugary beverages has contributed to the prevalence of diet-related health problems in both developed and developing countries.

5. Environmental Sustainability and Wellness

The globalized nature of the modern economy has significant implications for environmental sustainability and its impact on human health and wellbeing. The production and transportation of goods across borders contribute to carbon emissions, pollution, and habitat destruction, affecting both environmental and public health outcomes. As awareness of these issues grows, there is a growing emphasis on sustainability within the wellness industry.

Consumers are increasingly seeking out eco-friendly and ethically sourced products, supporting brands that prioritize environmental stewardship and social responsibility (Martins, 2024). This trend has led to the rise of sustainable fashion, green beauty, and eco-conscious consumerism. Furthermore, initiatives promoting eco-friendly practices, such as reducing plastic waste and supporting regenerative agriculture, have gained traction as integral components of holistic wellness.

Impact of Globalization on Emerging Health & Wellness Trends

Globalization		
	Cultural Exchange	Exchange of health and wellness practices from diverse cultures. Complementary therapy. Traditional Chinese medical practice. Ancient Indian traditions. ..
	Technological Innovation	Smartphones, wearable devices, and health-tracking apps have empowered individuals to take greater control of their health and wellbeing. Telemedicine and online wellness
	Market Dynamics	A vast array of offerings catering to the growing demand for holistic wellbeing. Driven by consumer preferences & influence of social media and celebrity endorsements.
	Societal & Public Health	Global efforts to address public health challenges. Collaborative initiatives between countries and international organizations.
	Environmental Sustainability	Initiatives promoting eco-friendly practices have gained traction as integral components of holistic wellness. Consumers are increasingly seeking out eco-friendly and ethically sourced products.

Figure 13: Impact of globalization on emerging health & wellness trends

Conclusion

In conclusion, globalization has profoundly influenced emerging health and wellness trends, shaping consumer behaviors, market dynamics, and public health outcomes worldwide. The exchange of cultural practices, facilitated by advancements in technology and increased connectivity, has led to a diverse landscape of wellness modalities accessible to a global audience. However, the commercialization of wellness and the globalization of unhealthy lifestyles pose challenges in promoting authenticity, equity, and sustainability within the industry.

Moving forward, addressing these challenges will require a multifaceted approach involving collaboration between governments, healthcare professionals, businesses, and civil society. By promoting evidence-based practices, fostering cultural sensitivity, and prioritizing environmental sustainability, we can harness the power of globalization to advance the wellbeing of individuals and communities around the world.

2.25 The Impact of Covid-19 on Emerging Health & Wellness Trends

The COVID-19 pandemic has had a profound impact on emerging health and wellness trends, reshaping consumer behaviors, industry dynamics, and societal attitudes towards wellbeing. From heightened awareness of personal health to shifts in how wellness is practiced and marketed, the pandemic has accelerated existing trends and catalyzed new ones. In this detailed analysis, we will explore the multifaceted impact of COVID-19 on health and wellness trends, covering key aspects such as mental health, digital health solutions, remote work, and the future of the wellness industry.

1. Mental Health and Wellbeing

The pandemic has taken a toll on mental health globally, leading to increased stress, anxiety, depression, and feelings of isolation. As a result, there has been a growing emphasis on mental health and wellbeing as integral components of overall wellness. Individuals are seeking out mindfulness practices, meditation apps, and virtual therapy sessions to cope with the emotional challenges of the pandemic. Moreover, the pandemic has highlighted the importance of destigmatizing mental health issues and promoting open dialogue around psychological wellbeing. Companies and organizations are implementing mental health initiatives and support services for employees, recognizing the impact of work-related stress and burnout on overall productivity and morale. 'Chief Mental and Physical Wellbeing Officer' is an example program based on the USA Surgeon General's framework 'Five Essentials for Workplace Mental Health & Wellbeing' in collaboration with top worldwide leaders and practitioners. According to the World Happiness Academy the program is designed to make a major positive impact in the workplace.
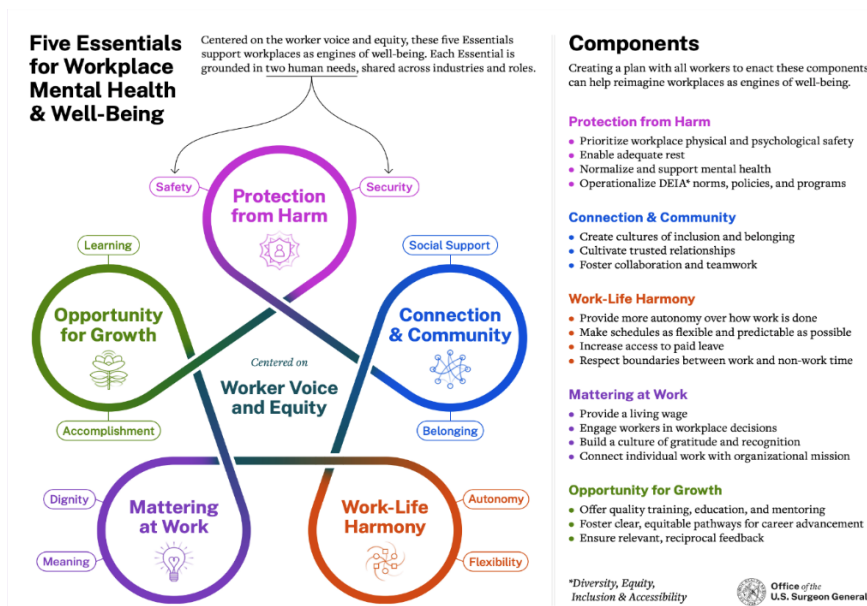

Figure14: Five Essentials for Workplace Mental Health & Wellbeing. Source: World Happiness Academy - https://www.worldhappiness.academy/courses/Chief-Mental-and-Physical-Wellbeing-Officer

2. Digital Health Solutions

The pandemic has accelerated the adoption of digital health solutions, ranging from telemedicine and remote monitoring to digital therapeutics and health-tracking apps. With restrictions on in-person healthcare visits and concerns about virus transmission, virtual care has become a preferred alternative for many patients seeking medical advice and treatment.

Telemedicine platforms have seen a surge in usage, enabling patients to consult with healthcare providers remotely for non-emergency conditions. This shift towards telehealth has not only improved access to care but also reduced barriers related to transportation, time constraints, and geographical distance.

Additionally, there has been increased interest in digital wellness tools that focus on preventive care, such as fitness apps, nutrition trackers, and sleep monitors. These technologies empower individuals to take a proactive approach to their health and wellbeing, promoting healthy habits and lifestyle modifications.

3. Remote Work and Work-Life Balance

The widespread adoption of remote work during the pandemic has reshaped perceptions of work-life balance and wellbeing. With the boundaries between work and personal life becoming blurred, there is a growing recognition of the importance of establishing healthy routines and boundaries to maintain overall wellbeing. Employers are implementing flexible work arrangements, wellness programs, and mental health resources to support employees in navigating the challenges of remote work. This includes initiatives such as virtual team-building activities, mindfulness workshops, and access to online fitness classes.

Moreover, the shift to remote work has led to a reevaluation of traditional office environments and commuting habits, with some individuals opting for remote or hybrid work models to prioritize their health, family responsibilities, and lifestyle preferences.

4. Immune Health and Wellness

The COVID-19 pandemic has heightened awareness of the importance of immune health and proactive measures to support the body's natural defense mechanisms. There has been increased interest in immune-boosting supplements, vitamins, and functional foods that claim to enhance immune function and overall resilience.

Consumers are seeking out products containing ingredients such as vitamin C, zinc, elderberry, and medicinal mushrooms, believing them to have immune-supportive properties. Additionally, there has been a resurgence of interest in holistic wellness practices that focus on nurturing the body-mind connection and promoting overall vitality.

However, it is essential to approach immune health with a critical mindset, recognizing that no single supplement or lifestyle modification can guarantee protection against infectious diseases. Instead, a balanced approach that includes a healthy diet, regular exercise, adequate sleep, stress management, and preventive healthcare measures is key to supporting immune function.

5. Evolution of the Wellness Industry

The pandemic has prompted a shift in consumer priorities and preferences within the wellness industry, influencing product offerings, marketing strategies, and business models. With an increased emphasis on health and wellbeing, there has been growing demand for products and services that promote immunity, relaxation, and self-care.

Wellness brands are adapting to changing consumer needs by diversifying their product lines, incorporating immune-boosting ingredients, and expanding their digital presence. Additionally,

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there is a growing focus on sustainability, transparency, and ethical sourcing within the wellness industry, reflecting consumer concerns about environmental impact and social responsibility. Moreover, the pandemic has accelerated the digital transformation of the wellness industry, with a proliferation of online platforms, virtual experiences, and e-commerce solutions. From virtual fitness classes and wellness retreats to telehealth consultations and personalized wellness apps, digital innovation is reshaping how wellness is accessed, experienced, and marketed.

Conclusion

In conclusion, the COVID-19 pandemic has had a profound impact on emerging health and wellness trends, catalyzing shifts in consumer behavior, industry dynamics, and societal attitudes towards wellbeing. From a heightened focus on mental health and digital health solutions to changes in remote work practices and the evolution of the wellness industry, the pandemic has accelerated existing trends and sparked new ones.

Moving forward, it is essential to prioritize holistic approaches to wellness that address the interconnectedness of physical, mental, and emotional wellbeing. By embracing innovation, promoting resilience, and fostering a culture of self-care and community support, we can navigate the challenges of the post-pandemic era and build a healthier,
more resilient society.

2.26 Consumer Behavior Analysis

Consumer behavior related to health and wellness products and services is influenced by a variety of factors, including demographics, psychographics, and cultural trends. An exploration of these influences is given below:

Demographics:

- Age: Younger consumers, particularly millennials and Gen Z, tend to prioritize health and wellness more than older generations. They are more likely to seek out organic, natural, and ethically sourced products.

- Income: Higher-income individuals often have more disposable income to spend on health and wellness products and services, such as boutique fitness classes, organic foods, and wellness retreats.

- Education: Higher levels of education are associated with greater health consciousness and awareness of wellness trends. Educated consumers are more likely to research products, read labels, and make informed purchasing decisions.

Psychographics:

- Lifestyle: Consumers with active lifestyles are more inclined to invest in fitness equipment, gym memberships, and sports apparel. They also seek out convenience products like meal delivery services or health-focused meal kits.

- Values: Values such as sustainability, environmental consciousness, and social responsibility play a significant role in purchasing decisions for health and wellness products. Consumers prefer brands that align with their values and support ethical practices.

- Motivations: Consumer motivations for adopting health and wellness behaviors vary, including improving physical health, managing stress, enhancing mental well-being, and achieving personal goals. Understanding these motivations can help businesses tailor their products and marketing messages.

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Cultural Trends:

- Wellness Culture: There has been a cultural shift towards prioritizing self-care, mindfulness, and holistic well-being. This trend is reflected in the popularity of wellness practices such as yoga, meditation, and clean eating.

- Influencers and Celebrities: Social media influencers and celebrities play a significant role in shaping health and wellness trends. Endorsements from influencers can sway consumer perceptions and drive demand for specific products or services.

- Wellness Tourism: The rise of wellness tourism reflects consumers' desire for immersive experiences that promote relaxation, rejuvenation, and personal growth. Wellness retreats, spa vacations, and eco-friendly resorts cater to this growing market segment.

Understanding the interplay between demographics, psychographics, and cultural trends is essential for businesses in the health and wellness industry to effectively target and engage their target audience. By aligning products, marketing strategies, and messaging with consumer preferences and values, companies can capitalize on emerging trends and build lasting relationships with their customers.

2.27 Summary of Relevant Literature Studies and Surveys Included in the Research Analysis

2.27.1 The Covid-19 Pandemic & Americans Food behaviors

The International Food Information Council (IFIC) in its 2020 Food & Health Survey 'The Covid-19 pandemic & Americans Food behaviors' conducted on 1,011 US consumers, has officially published its key findings that focus on "How the food and diet habits were impacted by COVID-19", "Changes in food and health perceptions and behaviors", "Plant-based foods and eating patterns", "The link between food and desired health outcomes". According to the

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survey results more than 80% of US consumers have experienced changes in their eating or food preparation habits; 54% of all surveyed consumers and 63% of those 50+ care more about healthy food and beverage choices in 2020 compared to previous years; 43% followed a diet in the last year; 18% are using a health monitoring device or app related to diet or physical activity; 26% say they snack multiple times a day; 28% are eating more protein from plant sources, 24% eating more plant-based dairy, and 17% are eating more plant-based meat alternatives. Seventy four percent are trying to limit/avoid sugars in their diet, and nearly 60% of the surveyed consumers give importance to products produced in an environmentally sustainable way (International Food Information Council, 2020).

2.27.2 The Wellness Economy

The Global Wellness Institute defines the wellness economy as industries involving 11 sectors enabling consumers to incorporate wellness activities and lifestyles into their daily lives. The Institute estimates the global wellness economy to be $5.6 trillion in 2022. It provides a detailed statement of the involved sectors, such as Mental wellness, Physical activity, Wellness tourism, Healthy eating, Personal care, Preventive and Public health. According to GWI, Wellness has become an important value system driving daily practices and decision-making with a growing focus on food quality and the way food is prepared and consumed. Among the wellness benefits stated by the Institute are reducing stress, boosting mental wellness, feeling of belonging, self-actualization, and boosting a status of happiness ('What is the wellness economy?', Global Wellness Institute, 2022).

Note: Numbers do not add to total due to overlap in sectors.
Source: Global Wellness Institute

Figure 15: Estimation of the 2022 global wellness economy by sector – Source: Global Wellness Institute

2.27.3 The Rise of Organic Food Demand

A market research conducted by Bonafide Research Company on organic food & beverage industry, studying the rise in health consciousness among consumers, notably the rise of "farm-to-table" and "farm-to-glass" practices, highlighting the freshness of organic ingredients. According to the research the surge in demand for clean-label food and beverage products is expected to be a major driver for the growth of the organic food and beverage industry. "Organic food is witnessing significant demand, and is expected to reach more than 90% market share by 2027" ('Global organic food and beverage market to grow', Food Engineering, 2023).

According to Nguyen and Truong (2021), the organic food market is the fastest-growing industry in countries like Europe, South America, Oceania, and Japan (Parashar, Singh and Sood, 2023). The organic food industry shows a growth potential of over 14.1% and by 2025 it is estimated to reach over USD 189.8 Billion (World Health Organization, 2020).

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2.27.4   Health and Sustainability in Food

Consumer survey conducted by Deloitte into health and sustainability in food and the way consumers shop (Deloitte, 2023). More than 17,000 consumers in 15 European countries are included in the survey, with the aim to offer insights on consumer perspectives - how they look at health and sustainability, and how these factors influence their grocery buying behaviors. 64% of respondents indicate that over the past 12 months they have become more interested in learning about the influence of food on their health. The survey shows that purchasing and consumption behaviors of European consumers have changed to diets focusing on fruit and vegetables, and less meat and alcohol. More than 70% of consumers are willing to pay at least 5% more for organic foods, and 17% would pay 10% more. Over 40% of respondents express their encouragement to governments to take active action in promoting healthy and sustainably-sourced foods (Deloitte, 2023).

2.27.5   Health Consciousness Trends in the Middle East

A survey conducted in 2021 by Borderless Access (a market research company) titled 'In good shape: how the Middle East is exploring healthy eating options'– the company surveyed consumers living in the Middle East (KSA & UAE) addressing consumer wellbeing and the type of food people are eating. Saudi consumers appear to be particularly health-conscious, following the global pattern with a greater proportion of people opting for vegan meals. In the UAE there is still a dramatic shift towards meatless options. Low-fat, low-sugar, low-carbohydrate diets are among the most popular (38% to 44% of consumers) similar to global findings. According to the survey almost half of all Middle Eastern people look for nutritious options when ordering food as opposed to choosing fast food takeaways. The article assessed a rise in health consciousness with a change in people's diets since the start of the pandemic.

According to Borderless Access, globally 57% of people have experimented with vegan or vegetarian diets, and there is since the pandemic a growing demand for meat-free meals (Borderless Access, 2021).

2.27.6 Feeling Good: The Future of the $1.5 Trillion Wellness Market

A Consumer survey was conducted by McKinsey & Company in 2021, studying consumer behavior about wellness. The survey involves 7,500 consumers in six countries. Published results show that consumers care deeply about wellness and their interest is growing; 42% of respondents consider wellness a top priority and 79% believe it is important. Consumers in every market researched reported a substantial increase in the prioritization of wellness over the past two to three years (McKinsey & Company, 2021).

2.27.7   Wellness Trends in US, China, and United Kingdom

Consumers are increasingly taking control over their health and expect companies to provide effective solutions. McKinsey's latest Future of Wellness research surveyed more than 5,000 consumers across China, the United Kingdom, and the United States. 82% of US consumers, 87% in China, and 73% in the United Kingdom consider wellness a top or important priority in their everyday lives. Millennial and Gen Z consumers are spending more on health and wellness than older consumers, notably on their Appearance, Health, Fitness, Nutrition, Sleep and Mindfulness. Main sources of influence for US consumers are "in-store product visibility" and "Friends and family recommendations". Women's health, Healthy ageing, Weight management, Fitness, and Gut health, are among the main areas of growth in wellness (McKinsey & Company, 2024).

2.27.8 Boston Consulting Group's Center for Customer Insights

A survey conducted by Boston Consulting Group's Center (2019) for Customer Insight addressing consumer trends in urban parts of India - According to the report, 57% of consumers currently spend money on wellness and health. This includes 40% of customers who spend money on healthier food and 46% of consumers who spend money on services like gym memberships, diet advice, and health examinations. The desire to appear good and reduce weight is the main driving force; and the satisfaction of having positive perceptions from others is among priorities (Jain, N., Sanghi, K. and Jain, A. 'Ten trends that are altering consumer behavior in India' – Boston Consulting Group's Center, 2019).

2.27.9 Health Drinks Market Size & Growth Trends

The Mordor Intelligence Industry Report covers the Healthy Canned Beverages - market segmented by product type (Fortified Fruit and Vegetables Juices, Nutritional Drinks, Functional Drinks, and other product types). The market for health drinks is another one of the fastest-growing in the world. The size of the health drinks market is predicted to increase from USD 344.36 billion in 2023 to USD 408.80 billion by 2028. (Mordor Intelligence Industry Report, 2023). Health drinks provide consumers with desirable health and lifestyle benefits, like higher energy, better hydration, better sleep, stronger immunity, improved gut health, weight management, and enhanced athletic performance. Those who wish to make tiny adjustments for significant outcomes will find these beverages interesting. "Better-for-you" characteristics including clear labels, natural or organic ingredients, calorie and sugar reductions or eliminations, and vegan or plant-based designations are common in health and functional beverages. Health beverages are enriched with vitamins, minerals, and other vital nutrients. They can serve as a convenient method to enhance your nutritional consumption. For

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instance, many health beverages may include a substantial amount of protein, which can aid in promoting muscle development and recovery. Some drinks may contain antioxidants that can assist in shielding against cellular harm and inflammation.

In July 2023, Packaged Facts released a report titled 'Functional Beverages: Market Trends and Opportunities, 2nd Edition'. The report found that 41% of adult consumers are willing to pay more for functional beverages, and 38% of adult consumers agree that they intentionally seek out beverages with ingredients that are designed to or claim to improve specific body functions or overall health. There is unquestionably great demand for beverages with functional components, even though some functional beverages are more niche than the most well-liked category of sports and energy drinks (Rasch, 2023).

The COVID-19 pandemic altered many elements of consumer behaviour and daily living, with more individuals seeking to improve their health in order to prevent or mitigate the severity of illness. Consumers have been concerned about their own and others' health, prompting some to purchase food and beverage products that are supposed to increase immunity or generally improve health because they believe in the concept of "food as medicine." For some, the pandemic prompted a greater emphasis on overall healthy living - frequent exercise, eating more complete foods, and so on - rather than just being susceptible to illness.

Driven by the introduction of new products and innovations, health drinks market will continue growing, offering consumers a wider range of options to pick from. The adoption of functional ingredients and beverages is expected to increase as awareness and availability of these products continue to develop.

Among the leading players in the health drink industry are PepsiCo, Unilever, Mondelez International, Inc., Danone S.A., General Nutrition Centers Inc., The Hain Celestial Group,

Glanbia PLC, Premier Nutrition Company LLC, The Coca-Cola Company, General Nutrition Centres, Inc. Due to the projected rise in demand for functional beverages and other health drinks, companies are implementing several strategies like acquisitions & mergers, collaborations, and product developments to expand their consumer base.

Health Drinks Market Update:

- In May 2022, PerfectTed launched a range of health beverages consisting of matcha green tea-based natural energy drinks, designed to alleviate tiredness. The objective of the challenger brand was to convert the consumption of caffeine into a more health-conscious practice by harnessing the potential of matcha, an ingredient with a rich history spanning over 800 years.

- Gist, a prebiotic effervescent beverage consisting of five organically certified botanical components, was introduced in May 2021 as a competitor in the health drink market. Gist was produced using plant-based components instead of extracts.

- PepsiCo, a prominent food and beverage corporation, has introduced its newest product, Soulboost, in May 2021. Soulboost is a sparkling water drink that contains a small amount of genuine juice and beneficial additives. Soulboost encapsulates the enjoyable essence of a fruity beverage with a refreshing sparkling water that is both light and free of guilt.

Source: https://www.mordorintelligence.com/industry-reports/global-health-drinks-industry

2.27.10 Protein Bars Among the Fastest-Growing Markets in the World

Growth Opportunities and Driving Insights for [Food & Beverages] Sector – A market overview of Global Protein Bars market. According to the research conducted by "360 Industry Insights", the protein bars market is among the fastest-growing markets in the world, with 2022

estimates of USD 1792.85 million and projected value of USD 2880.55 million for 2028 (360 Industry Insights, 2023).

2.28 Case Studies- New Lines of Healthy Products

Two case studies from the literature are described below, showing the success of launching new lines of healthy products for health-conscious consumers.

Case 1: Beyond Meat - Disrupting the Meat Industry with Plant-Based Alternatives

Beyond Meat is a prominent example of a company that successfully launched a new line of healthy products targeting health-conscious consumers. Founded in 2009 by Ethan Brown, Beyond Meat aimed to disrupt the traditional meat industry by offering plant-based alternatives that mimic the taste, texture, and nutritional profile of meat products. This case study explores the success story of Beyond Meat and its impact on the health-conscious consumer market (Zhang, D. Research Gate - Journal of Finance Research, Volume 04, 2020).

Background

Before the rise of Beyond Meat, vegetarian and vegan options were limited and often perceived as bland or unappetizing. Many health-conscious consumers were seeking alternatives to conventional meat products due to concerns about health, animal welfare, and environmental sustainability. Beyond Meat recognized this growing demand and set out to create plant-based meat substitutes that would appeal to a mainstream audience.

Product Development

Beyond Meat invested heavily in research and development to create innovative plant-based products that closely resembled meat in taste, texture, and appearance. Using advanced food technology and ingredients such as pea protein, coconut and canola oil, and minerals including

calcium and iron, along with natural flavorings, the company developed a range of products, including Beyond Beef, Beyond Burger, and Beyond Sausage (Randolph, 2022). These products not only provided a satisfying culinary experience but also offered nutritional benefits, such as being cholesterol-free and lower in saturated fat compared to conventional meat (Food Manufacturing, 2019).

Marketing Strategy

Beyond Meat employed a strategic marketing approach to position its products as appealing alternatives to meat, targeting health-conscious consumers, flexitarians, and environmentally conscious individuals. The company leveraged partnerships with high-profile restaurants, fast-food chains, and retailers to increase brand visibility and accessibility. Collaborations with celebrities, chefs, and influencers helped generate buzz and credibility for the brand, while social media campaigns and digital advertising engaged consumers and promoted product awareness (McKinnon, 2022).

Market Expansion

Beyond Meat pursued an aggressive expansion strategy to penetrate new markets and reach a broader audience of health-conscious consumers worldwide. The company secured distribution deals with major grocery chains, including Whole Foods, Walmart, and Costco, making its products readily available to consumers across the United States and internationally. Beyond Meat also expanded its product line to include frozen and refrigerated options, as well as foodservice solutions for restaurants and institutions (Beyond Meat - news release, 2021).

Consumer Adoption

Beyond Meat's innovative products resonated with health-conscious consumers seeking nutritious, sustainable, and ethical food options. The company's commitment to transparency, quality, and innovation earned the trust and loyalty of its customer base, leading to rapid adoption and mainstream acceptance of plant-based meat alternatives. Beyond Meat's products appealed not only to vegans and vegetarians but also to flexitarians and meat-eaters looking to reduce their meat consumption for health or environmental reasons.

Financial Performance

Beyond Meat's success in capturing market share and driving consumer demand for plant-based meat alternatives is reflected in its financial performance. The company's revenue has experienced exponential growth since its IPO in 2019, with annual sales of $464.7 million in 2021 (Beyond Meat, 2022). Beyond Meat's stock price has also soared, making it one of the leading players in the plant-based food industry and attracting investors bullish on the long-term potential of the market.

Conclusion

Beyond Meat's success story serves as a compelling case study of how a company can disrupt an industry and capture market share by meeting the needs and preferences of health-conscious consumers. Through innovative product development, strategic marketing, market expansion, and consumer adoption, Beyond Meat has emerged as a leader in the plant-based food sector, paving the way for a more sustainable and healthier world.

Case 2: RXBAR **-** Revolutionizing the Protein Bar Market with Simple Ingredients

RXBAR is a prime example of a company that achieved remarkable success by launching a line of protein bars targeting health-conscious consumers. Founded in 2013 by Peter Rahal and Jared Smith, RXBAR disrupted the protein bars market by offering products made with simple, wholesome ingredients and transparent labeling. This case study delves into the business case of RXBAR and examines its strategies for success in the health food industry (Branding Strategy Insider).

Identifying a Market Gap

Before the emergence of RXBAR, the protein bars market was saturated with products containing artificial ingredients, excessive sugar, and misleading health claims. RXBAR identified a gap in the market for clean-label protein bars made with minimal, recognizable ingredients, catering to consumers seeking nutritious and transparent snack options.

Product Innovation

RXBAR differentiated itself by focusing on simplicity and transparency in product formulation, using a short list of whole food ingredients such as egg whites, nuts, and dates. The company's commitment to clean, minimalistic ingredients resonated with health-conscious consumers looking for convenient, on-the-go snacks that align with their dietary preferences and values (Koltun, 2021).

Brand Positioning

RXBAR positioned itself as a brand that prioritizes honesty, authenticity, and transparency in its messaging and packaging. The brand's straightforward packaging design, featuring a list of

ingredients prominently displayed on the front of the package, communicated trust and integrity to consumers (Kaleidoscope, 2024).

Targeting Health-Conscious Consumers

RXBAR strategically targeted health-conscious consumers, including fitness enthusiasts, athletes, and individuals following specific dietary protocols such as paleo or Whole30 (Koltun, 2021). By emphasizing the protein content, low sugar, and natural ingredients of its products, RXBAR appealed to consumers seeking nutritious, functional snacks to support their active lifestyles and dietary goals.

Continuous Innovation and Expansion

RXBAR continued to innovate and expand its product line to meet evolving consumer preferences and market trends. The company introduced new flavors, product variations, and packaging formats to cater to diverse tastes and dietary needs, such as RXBAR Kids, RX Nut Butter, and RX A.M. Oats. RXBAR also expanded its presence in international markets, capitalizing on the global demand for clean-label, protein-rich snacks. In 2017, RXBAR was acquired by the Kellogg Company for $600 million, a testament to the brand's rapid growth and market success (Siegner, 2019 – Food Dive).

2.29 Growth Opportunities for Healthy Products

Capitalizing on growth opportunities in the health food market, and in the context of health and wellness trends, new opportunities for healthy products are presented below with SWOT analysis and target customers.

A summary of healthy product lines offering growth opportunities for business organizations in the food and beverage industry:

1. Plant-Based Protein Snacks

Plant-based protein snacks, such as chickpea puffs, lentil chips, and edamame crackers, cater to the growing demand for plant-based alternatives among health-conscious consumers. These snacks provide a convenient and nutritious option for individuals following vegetarian, vegan, or flexitarian diets, as well as those seeking sustainable and environmentally friendly food choices.

SWOT Analysis:

STRENGTHS	High protein content, diverse flavor options, appeal to plant-based consumers.
WEAKNESSES	Limited brand awareness, competition from established snack brands.
OPPORTUNITIES	Growing plant-based market segment, expansion into new distribution channels.
THREATS	Regulatory challenges, imitation by larger food companies.

2. Functional Beverages

Functional beverages, such as adaptogen-infused teas, collagen-infused waters, and probiotic-rich kombuchas, address specific health concerns and offer functional benefits beyond hydration. These beverages target health-conscious consumers seeking natural solutions to support immunity, gut health, stress management, and overall wellbeing.

SWOT Analysis:

STRENGTHS	Functional ingredients, customization options, potential for premium pricing.
WEAKNESSES	Limited shelf life, competition from traditional beverage brands.

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OPPORTUNITIES	Rising demand for functional beverages, expansion into specialty retail and e-commerce.
THREATS	Ingredient sourcing challenges, negative perception of certain functional ingredients.

3. Superfood Smoothie Kits

Superfood smoothie kits provide consumers with pre-portioned ingredients to create nutrient-dense smoothies at home, incorporating ingredients such as kale, spinach, berries, chia seeds, and hemp protein. These kits offer convenience, variety, and customization options for health-conscious individuals looking to incorporate more fruits, vegetables, and superfoods into their diets.

SWOT Analysis:

STRENGTHS	Convenience, freshness, appeal to health-conscious consumers.
WEAKNESSES	Perishable ingredients, competition from smoothie delivery services.
OPPORTUNITIES	Home cooking trend, partnerships with health influencers and nutritionists.
THREATS	Seasonal availability of certain ingredients, market saturation.

Target Customers

1. Health-Conscious Millennials: Millennials prioritize health and wellness, seeking out products that align with their values, lifestyle, and dietary preferences. Targeting this segment with innovative and convenient healthy snacks and beverages can capitalize on their willingness to invest in their wellbeing and try new wellness trends.

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2. Fitness Enthusiasts: Fitness enthusiasts are focused on optimizing performance, recovery, and overall health through nutrition and supplementation. Offering functional beverages and protein-rich snacks tailored to their pre- and post-workout needs can appeal to this target segment seeking convenient and effective fueling options.

3. Busy Professionals: Busy professionals value convenience and practical solutions to support their hectic lifestyles while prioritizing health and nutrition. Providing grab-and-go options such as plant-based snacks and functional beverages can cater to their on-the-go needs, offering nutritious alternatives to traditional convenience foods

Conclusion

By introducing innovative and nutritious products that align with evolving health and wellness trends, targeting specific customer segments, and implementing effective marketing strategies, businesses can capitalize on growth opportunities in the health food market and establish a strong brand presence in the competitive landscape.

2.30 Weaknesses of Secondary Findings

The existing methods that have been used to study the health & wellness trends present some limitations and weaknesses in identifying the implications and impact of these trends on the concerned business sectors. A lack of focus on investigating and understanding the implications of these trends on businesses and organizations, notably in identifying the industries or business sectors that are directly impacted by these changes, as well as identifying how the impact is reflected and experienced in the concerned businesses, and what are the adequate adaptation strategies that are / or need to be applied to overcome the challenges of health and wellness trends and to meet the new consumption patterns' requirements.

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The present research with its process that includes, in addition to secondary findings, quantitative and qualitative surveys, aims at leveraging and complementing the existing knowledge gained from the research methods already used to address similar questions. This study is seeking to provide additional information focusing on areas that have not been covered or updated by existing investigations and need further research and studies.

A great potential exists for developing new solutions and technologies that align with health and wellness trends. This could include professional research approaches to be conducted within each industry, notably quantitative and qualitative surveys involving consumers and professionals, looking into potential areas and sectors involved in the health and wellness trends such as the food industry from manufacturers to retailers; farmers' practices to meet the growing demand for organic and plant-based products; healthcare provider; retail and e-commerce businesses; hospitality and food service like restaurants and other food service establishments.

CHAPTER 3 – DATA & METHODOLOGY

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3.1 Introduction

John W. Creswell states that "research is a process of steps used to collect and analyze information to increase our understanding of a topic or issue". It comprises three steps: pose a question, collect data to answer the question, and present an answer to the question (Librarianship studies & Information technology, 2022).

This study is conducted with the aim of acquiring information and knowledge for professional or commercial purpose to determine opportunities and goals for concerned businesses. The research aims at increasing our understanding and providing an update on the current knowledge through new findings addressing the problem of the growing shifting in consumer behaviors influenced by health and wellness trends, as well as the implications of these trends on consumption patterns with their underlying factors. Understanding and providing insights into these dynamics will help concerned business sectors adjust their offerings and strategies to effectively respond to the shifting market demands and meet the evolving needs of health-conscious consumers in the context of health and wellness trends.
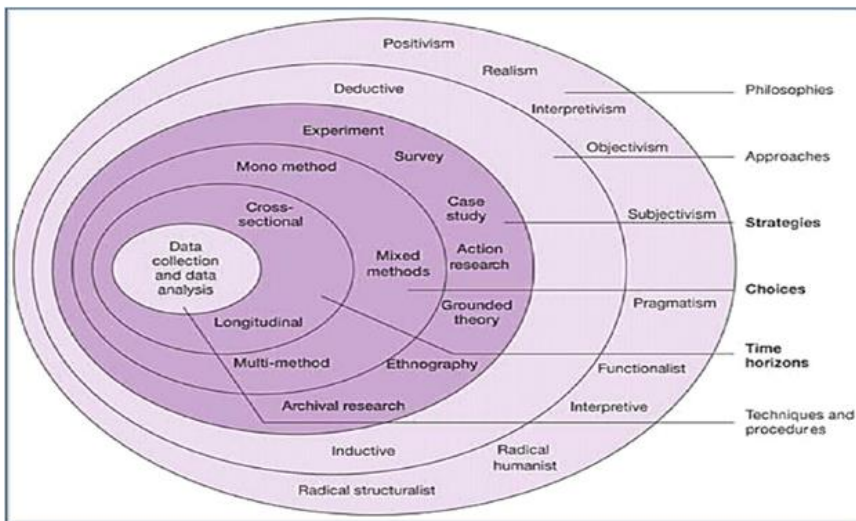
The research onion

Figure 16

The research onion method was developed by Saunders et, al. (2007). This method defines the stages that should be covered to develop a research strategy. Each layer of the onion presents a different stage of the process. The core layer of the onion consists of the final elements of the research and they are closely related to the outer layers. This model is adaptable for almost any type of research.

The onion consists of six different layers, each one has a specific role in formulating the methodology. The first layer consists of the philosophies that mainly include positivism, objectivism, realism, interpretivism, pragmatism, and functionalist, and this acts as a starting point followed by the appropriate research approach in the second layer, namely deductive and inductive. The third layer focuses on the different strategies or methods to use, i.e. experiment, survey, case study, action research, grounded theory, ethnography and archival research. The fourth layer consists of the choices that can be used for collecting the data, notably mono method, mixed methods or multi-methods. The fifth layer identifies the time horizon of the research, and the sixth layer represents the techniques and procedures which help identify the method for data collection. In our study we adopt a pragmatism philosophy with the deductive approach, and we rely on quantitative consumer survey along with a qualitative survey through four focus groups of professionals from different industries involved in the researched topic. As well as secondary data from literature studied and analyzed within the research methodology. The method choice used for collecting the data is the mixed methods research combining quantitative and qualitative surveys, interpreted and compared with secondary data

3.2 Research Philosophy

A research philosophy is a set of basic beliefs that guide the design and execution of a research study. Pragmatism is the chosen philosophy for this research. It incorporates both positivism and interpretivism within the same study (Mind the Graph, 2022). It is a problem-solving philosophy based on the examination of different aspects of a research problem. With its practicality, this philosophy provides flexibility and aligns with the objective of gaining a comprehensive understanding of the evolving health and wellness trends, their impact on consumption patterns and their business implications. It also allows the use of both quantitative and qualitative methods to provide practical insights, offering actionable findings that can help real-world decisions for concerned businesses and organizations in response to the dynamic landscape of health-conscious consumer behavior.

3.3 Research Approach

This research uses a deductive approach, which begins with a general knowledge or theory to develop a proposition and then design a research framework to test that proposition. In order to better understand how health and wellness trends affect consumption patterns, the research comprises an exploration of secondary findings from existing studies, and completed with primary data collection, followed by analysis and interpretation, with comparison of the primary findings with the exploratory research of secondary data. A deductive approach is practical for drawing actionable insights for businesses, and allows for evaluating and refining existing theories in the context of real-world observations and data.

3.4 Research Design

In this study we use two research types "Exploratory" and "Analytical" to explore the various aspects of the researched topic, provide new insights to the existing knowledge, and analyze the findings in a way that can help update our knowledge and suggest solutions and recommendations for concerned people and organizations.

The study adopts exploratory research, searching for an in-depth understanding, and aiming at gaining insights in the subject and potentially develops hypothesis and visions regarding it. It also adopts an Analytical/Explanatory research analyzing the characteristics of evolving health-conscious behaviors, studying their impact on consumption and lifestyle choices, and providing insights related to challenges and implications for businesses. We explored secondary data such as literature reviews, academic journals, case studies, articles, statistics, surveys and reports along with primary research conducted on consumers and professionals to provide both quantitative and qualitative data with analysis, interpretation, and actionable recommendations for concerned people and business organizations.

3.5 Research Framework and Methods

The research framework comprises two components:

1-Secondary research data from reliable sources such as literature reviews, academic journals, case studies, articles, statistics, surveys and reports, providing valuable information and background study for analysis, interpretation and conclusions.

2-Primary data collected from quantitative and qualitative surveys, well-structured and designed to answer the research questions and provide actionable findings that can help real-world decisions for businesses in response to the evolving health-conscious consumer behavior.

3.6 Data Collection Method

The research adopts a Mixed Methods design for collecting, analyzing, and correlating both quantitative and qualitative data. The process for data collection entails gathering primary and secondary data on health and wellness trends and their influence on consumption patterns and business organizations. These data are sorted, analyzed and interpreted with comparison and correlation between primary data gathered from the quantitative and qualitative surveys, and the secondary data collected and summarized.

3.6.1 Quantitative Survey

The quantitative survey is conducted via questionnaire on a sample of 135 consumers of different ages, males and females, different geographic areas and different socio demographic profiles. The main topics searched through this survey focus on understanding the importance and impact of health and wellness trends on consumers and how it is reflected through their behaviors and lifestyles. The findings help answering the major research questions: "How do evolving health and wellness trends influence consumer consumption patterns? "What are the key factors shaping the choices individuals make in terms of food, products, lifestyle, wellness practices?" and "What are the implications for businesses? And How should policymakers, design thinking teams and marketers react?".

A- Target Population / Sample

The quantitative survey is conducted online through Emails and WhatsApp communication and through Microsoft Teams video calls on a sample of 135 consumers of different ages, males and females. Most participants are selected among colleagues from the company where I work, but from different branches/countries across the Middle East. This approach offers many

advantages, notably practicality, affordability, easy access, fast communication through our organization's communication systems. It also provides a mix of different socio-demographic profiles and populations, involving people from a range of different nations, social, and cultural backgrounds.

Sample split by geographic areas: Lebanon 40% – UAE 20% – KSA 20% – Kuwait 20%

Age: 18 – 65

Male: 55% - Female: 45%

The structure of the questionnaire is split into three parts:

1-The impact of health and wellness trends on consumer behaviors, consumer choices and consumption.

2-The motivations that drive these changes in preferences, product choices, consumptions and lifestyle.

3-The implication of these trends for businesses and policymakers.

B- Execution and Timeframe

1st phase (3 weeks): Sending the questionnaire and receiving the answers (by emails, WhatsApp or through Microsoft Teams) - Microsoft Teams video calls are used to explain the purpose of the survey including ethical considerations, present the questionnaire, and answer participants' questions and enquiries about the survey.

2nd phase (3 weeks): Collecting and gathering the data in one excel sheet, then calculating and presenting the findings in charts and graphs with data and values.

3rd phase (2 weeks): Data analysis.

3.6.2 Qualitative Survey

A qualitative survey is also conducted through four focus groups (4 groups of 4 to 6 people each – Total 20) of business people from different industries being impacted by these evolving trends in the context of health-conscious consumerism, such as food and beverage, fitness and wellness, healthcare and pharmaceuticals, restaurants, hospitality and tourism, dieticians, sports clubs, and marketers from different business sectors. The focus group survey is conducted in Lebanon, and includes exploration questions and discussions addressing the core topics that need answers related to consumer behaviors and their impact on the businesses based on real-world experience of participants. This survey aims at giving a deeper understanding of the real impact of health and wellness trends and consumer behaviors as witnessed and experienced by people from the involved business sectors. It also serves as a modelling process, a representation of the real-world situation used to test and validate hypotheses, make predictions, and gain insights into deeper issues such as motivations, behaviors, consumer expectations, and changes in consumption patterns.

3.6.3 Secondary data collection

The Secondary data is accessed and extracted from professional and reliable sources, statistics related to the researched topic, studies, cases, research and surveys' findings related to evolving health and wellness trends and their impact on consumer consumption patterns; the key factors reshaping the choices individuals make in terms of food, products, lifestyle, and wellness practices, as well as the implications for businesses. In our research we focus on statistics and studies conducted on the topic, studies that have values and reliability and can serve the research purpose and answer the key questions from different angles.

3.7 Data Analysis - Model Building

Data analysis is conducted for both surveys quantitative and qualitative based on the answers and findings as structured through the questionnaire. It follows a systematic and rational way, clear, simple and easy to be understood and interpreted in its proper context and to reach conclusions. The model building for the quantitative survey is based on the following variables:

Independent variables: Health & wellness trends - They represent the various trends of health & wellness including emerging products, services and practices promoting health & wellbeing.

Dependent variables: Consumer behavior - Choice - Preference - Lifestyle - Practice.

Mediating variables: Motivations - Perceived health benefits - beliefs.

Moderating variables: Socio demographic factors: age - gender - profile - culture.

The independent variables are the indicators of the level of impact/influence on the dependent variables. The dependent variables express the level of being influenced by the independent variables. The mediating variables measure why & how the relationship between independent and dependent variables occurs. The moderating variables measure the interaction that affects status of engagement /relationship between independent and dependent variables, identifying when, where, for whom.

Scale Method: The quantitative survey applies Likert scale - Closed-ended questions - Multiple choice questions. Results are gathered and presented in simple bar chart, plotting categorical and numerical variables, for easier analysis and interpretation. The vertical axis represents the categorical variable, and the horizontal axis represents percentage of respondents. Pie charts are used to show proportion of a whole population, and when numbers equal 100%.

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The qualitative survey helps in the assessment of the nature of relationship. The method used in data analysis follows a process of grouping the answers by theme in a meaningful and interpretable way, and synthesized:

1. Impact of consumer shift & estimation
2. Rise in demand for (organic, plant-based, health drinks, protein bars, sugar-free…)
3. Recommendations for business adaptation

3.8 Data Validation

The validation i.e., checking the accuracy and reliability of the results obtained from the surveys, is achieved through cross-validation, and correlations, linking and comparing the findings of the primary survey with existing surveys from the literature. We divided the data into different parts and checked the results obtained from each part. We applied criteria based on relevance, similarity, closeness and proximity of findings from different sources for analyzing, validating and testing the outcomes, upon having summarized the key findings from each source, namely the quantitative and qualitative findings from the primary survey, and the secondary findings from the existing literature sources.

3.9 Ethical Considerations

Ethical considerations are clearly stated and communicated to the people participating in the surveys. Key considerations are described below:

-Privacy and confidentiality, protection of information that is collected and analyzed, transparency, honesty, and social responsibility.

-Privacy includes personal information about participants, confidential business data, or proprietary research findings.

-Implementing appropriate security measures to safeguard against unauthorized access or disclosure of data.

-Ensuring that the data is collected and used exclusively for the purpose of the study as defined, and in a manner that respects individual rights and expectations of privacy.

-Ensuring that the participants are fully informed about the purpose of the study.

CHAPTER 4 – RESULTS & ANALYSIS

4.1 Data Collection & Findings

In this section we present the outcomes and findings of the primary research. Primary findings are based on the responses gathered from the quantitative and qualitative surveys, following the structure of the surveys as detailed below.

4.1.1 Primary Data – Quantitative Survey

The main topics searched through this survey focus on understanding the importance and impact of health and wellness trends on consumers and how it is reflected through their behaviors and lifestyles. The findings help answering the key research questions:

1- How do evolving health and wellness trends influence consumer consumption patterns?
2- What are the key factors shaping the choices individuals make in terms of food, products, lifestyle, wellness practices?
3- What are the implications for businesses? And How should policymakers, design thinking teams and marketers react?

4.1.2 Survey Findings

Section 1: Health and Wellness Trends and Consumer Behavior

1. Do you believe that wellness and health-related factors are important and considered in your product choices and lifestyle?

Are wellness and health-related factors important
and considered in your product choices and lifestyle?

- Very Important
- Somewhat Important
- Not Important
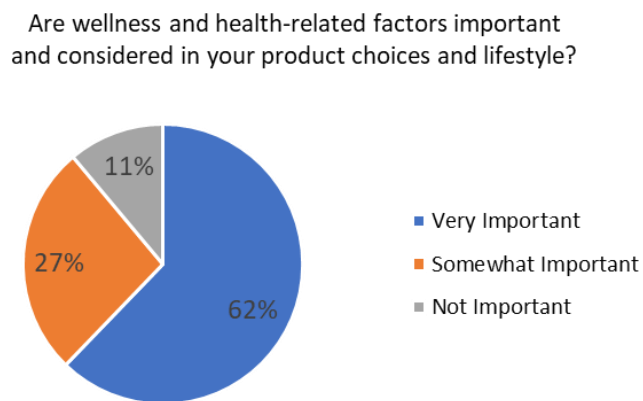
Figure 17: Importance and consideration of wellness & health-related factors in consumer choices

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2. How often do you consider health-related factors when making consumer choices?

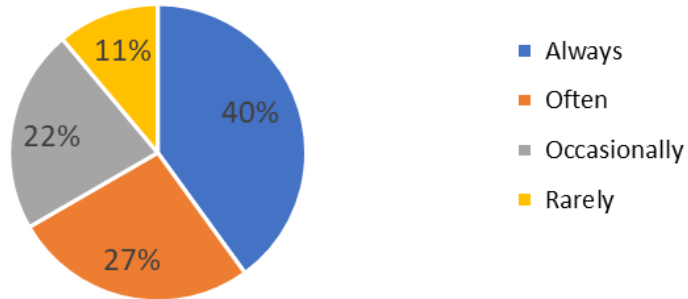How often do you consider health-related factors when making consumer choices?

40% Always

27% Often

22% Occasionally

11% Rarely

Figure 18: Consistency of consideration of health-related factors when making choices

3. Have you noticed any changes in your consumption patterns due to an increased focus on health and wellness trends?

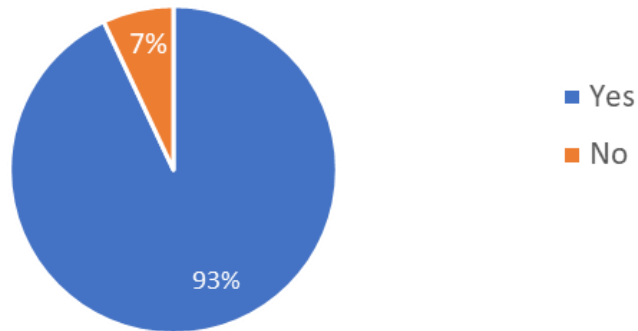Changes noticed in consumption patterns due to an increased focus on health and wellness

7% No

93% Yes

Figure 19: Awareness of changes in consumption patterns due to health & wellness factors

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4. If yes, what are the changes you have done in your consumption habits/choices? (Select all that apply)
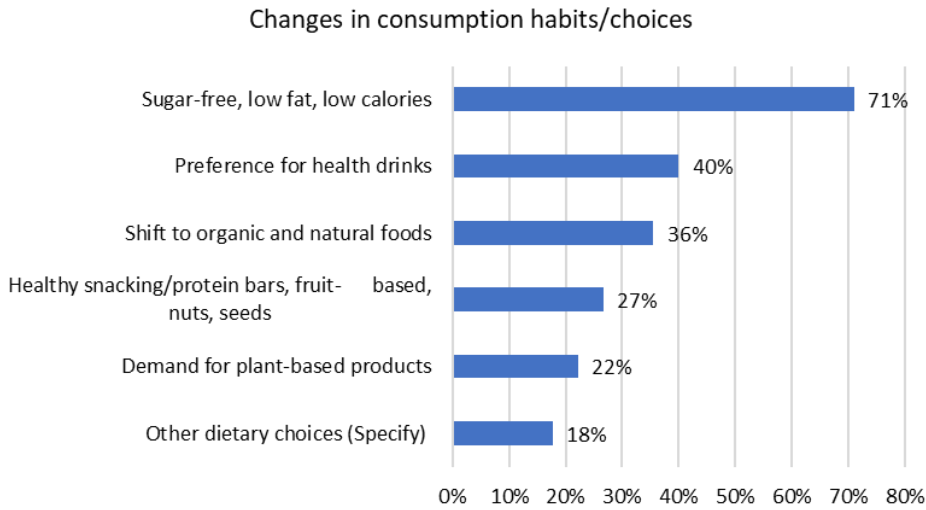

Figure 20: Types of changes in consumption habits/choices

Section 2: Motivations Behind Health-Conscious Choices

5. What motivates you to make health-conscious choices in terms of food, products, and lifestyle? (Select all that apply)
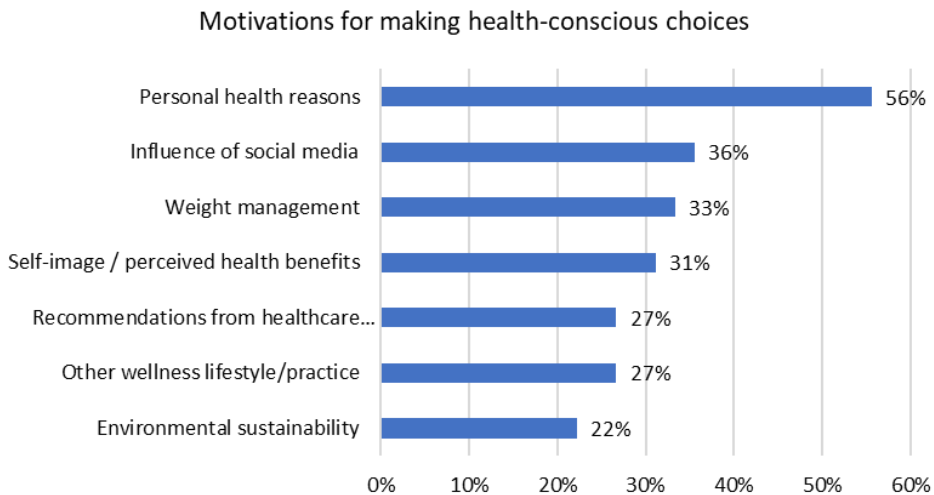

Figure 21: Motivations for making health-conscious choices

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6. How much influence do marketing & advertising related to health and wellness have on your choices?

Influence of marketing & advertising on healthy choices?

Very influential — 53%
Somewhat influential — 36%
Neutral — 4%
Somewhat not influential — 7%
Not influential at all — 0%
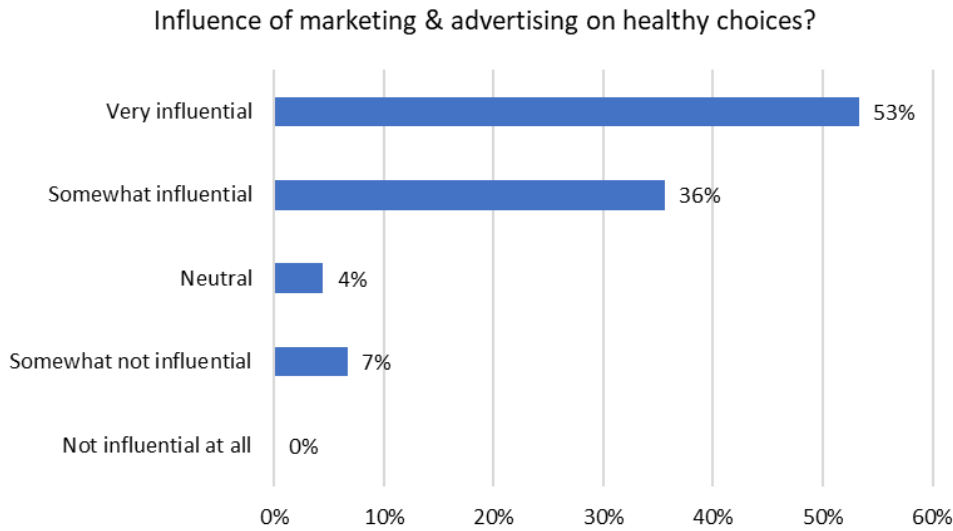
Figure 22: Consumer attitude regarding the Influence of marketing & advertising on healthy choices

Section 3: Implications for Businesses

7. Do you believe that businesses should adapt their products and services to align with health trends?

Do you believe that businesses should adapt their products and services to align with health trends?

- Strongly Agree — 58%
- Agree — 31%
- Neutral — 11%

Figure 23: Consumer opinion regarding products & services adaptation

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8. In your opinion, what specific changes could businesses make to better meet the needs of health-conscious consumers? (Select all that apply)
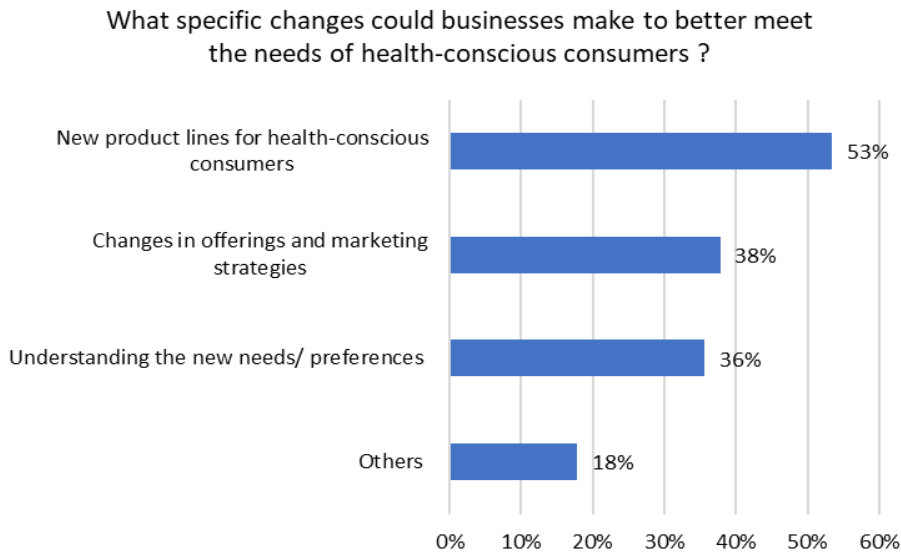
Figure 24: Consumer opinion regarding specific changes should businesses make
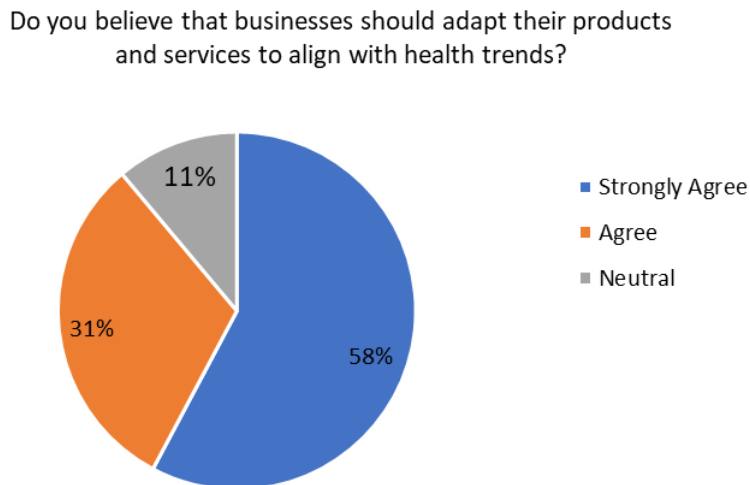
4.1.3 Summary of Findings / Analysis

Section 1: Health and Wellness Trends and Consumer Behavior

- According to the results of the survey, 62% believe that wellness and health-related factors are very important and considered in their product choices and lifestyle; 40% always consider health-related factors when making consumer choices, and 27% often consider these factors.

- Ninety-three percent of the surveyed consumers have noticed changes in their consumption patterns.

- Sugar-free, low fat, low calories are stated as major changes in consumption habits and choices (71%); Preference for health drinks and organic food are among the top changes with 40% preferring health drink and 36% shifting to organic food. 27% follows a healthy

snacking of protein bars, fruit-based, nuts or seeds. Demand for plant-based products is also stated among new consumption choices (22%).

Section 2: Motivations Behind Health-Conscious Choices

- The top three motivations for making health-conscious choices are: Personal health reasons, stated by 56% of surveyed consumers - Influence of social media, stated by 36% of consumers - and Weight management stated by 33%, with a female predominance (70% of female consumers vs 4% of male consumers).

- Psychological factors like self-image/ perceived health benefits are also behind health-conscious choices, as stated by 31% of the surveyed consumers.

- The influence of marketing & advertising on healthy choices is considered very influential by 53% of participants, and 36% consider it as somewhat influential.

Section 3: Implications for Businesses

- Eighty-nine percent (89%) of consumers believe that businesses should adapt their products and services to align with health trends.

- Developing new product lines for health-conscious consumers, Changes in offerings and marketing strategies, and Understanding the new needs/ preferences, are the key suggestions for business organizations to better meet the needs of health-conscious consumers.

4.1.4 Primary Data – Qualitative Survey

The qualitative survey is conducted through four focus groups (4 groups of 4 to 6 people each – Total 20) of business people from different industries being impacted by these evolving trends in the context of health-conscious consumerism, such as food and beverage, fitness and

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wellness, healthcare and pharmaceuticals, restaurants, hospitality and tourism, dieticians, sports clubs, and marketers from different business sectors. The focus group survey included semi-structured exploration questions and discussions addressing the core topics that need answers related to consumer behaviors and their impact on the businesses based on real-world experience of participants. The aim of this survey is to get a deeper understanding of the real impact of health and wellness trends and consumer behaviors as witnessed and experienced by people from the involved business sectors. It also serves as a modelling process, a representation of the real-world situation used to test and validate hypotheses, make predictions, and gain insights into deeper issues such as motivations, behaviors, consumer expectations, and changes in consumption patterns.

The key questions addressed the following:

1- The impact of the shift in consumer demand experienced in their business.
2- The percentage of consumers shifting towards health and wellness driven demand.
3- If they feel a rise in demand for organic, plant-based, health drinks, protein bars, sugar-free, low-fat, low calories, sustainable, or other wellness practices.
4- How can organizations adapt their business to meet changing consumer behaviors and choices?

Focus group process seven steps methodology: *Figure 25*

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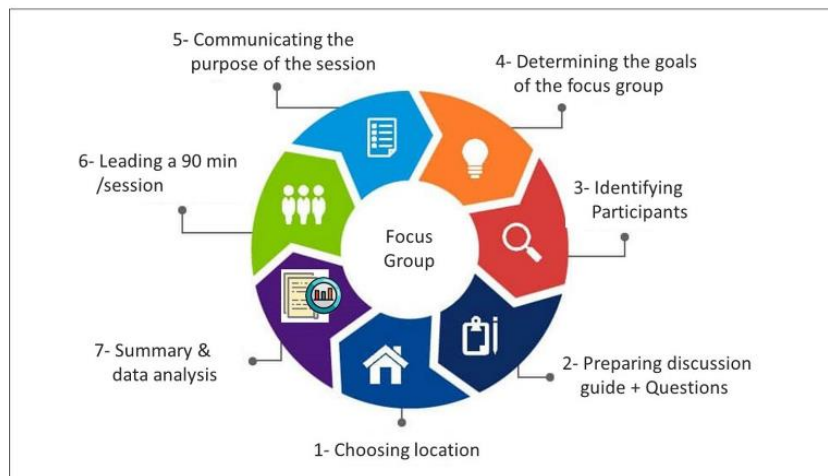
1- Choosing location: For practical reasons we have chosen our office in Beirut to conduct the focus group survey.

2- Preparing discussion guide & Questions: The exploration questions and discussions were organized in a way addressing the core topics that need answers related to consumer behaviors and their impact on the businesses based on real-world experience of participants. The key questions were split into four sections as follows: 1) The impact of the shift in consumer demand experienced in their business. 2) The percentage of consumers shifting towards health and wellness driven demand. 3) If they feel a rise in demand for Organic, plant-based, health drinks, protein bars, sugar-free, low-fat, low calories, sustainable, or other wellness practices. 4) How can organizations adapt their business to meet changing consumer behaviors and choices?

3- Identifying participants: The participants are 20 business people (split into 4 groups of 4 to 6) selected from different industries being impacted by these evolving trends in the context of health-conscious consumerism. Group 1: five marketing people. Group 2: four sales managers from different organizations in food & beverage. Group 3: five professionals (two from healthcare, two from fitness sector, and one from pharmaceutical company). Group 4: six managers and professionals (four managers from hospitality and tourism, one dietician, and one from sports industry).

4- Determining the goals: To get a deeper understanding of the real impact of health and wellness trends and consumer behaviors as witnessed and experienced by people from the involved business sectors. It also serves as a modelling process, a representation of the real-world situation used to test and validate hypotheses, make predictions, and gain insights into deeper issues such as motivations, behaviors, consumer expectations, and changes in consumption patterns.

5- Communicating the purpose of the session: The purpose of the session was clearly communicated to the 20 participants and discussed before the session.

6- Leading the session: The session was structured around the four questions and split into four sections. In view of my experience in such surveys, I was the moderator leading the session with the assistance of one person from marketing communications agency (Media Conseil).

7- Summary & analysis: Detailed below.

4.1.5 Summary of Findings from the qualitative survey

There is a full agreement between the participants of the four focus groups that the shift in consumer demand experienced in their business is of significant importance, and its impact on their organizations is very high, and these shifts are in a continuous rise. General and common opinions are summarized below:

- The most affected business sectors are identified as follows: Food & Beverage, Restaurants, Fitness-related products and services, Healthcare, Hospitality and Tourism, Sports industry. The highest impact is on the Food & Beverage (up to 65%), with an overall impact varying from 30% to 65% depending on business sector.

- The percentage of consumers shifting towards health and wellness driven demand is estimated between 40% to 65% depending on the industry. Food & Beverage businesses are the most affected.

- Sugar-free, low-fat, low calories, are among the top rising demands, its impact on the Food & Beverage industry is estimated at more than 60%.

- Consumer demand for organic and plant-based products is on top of the evolving trends, and estimated to have an impact of 30% on the overall food and beverage demands.

- Health drinks and protein bars are also on the rise – mainly observed among active and sporty young people.

- The interest in sustainable products is also growing, with tendency to be mainly exhibited among people between 30 and 40 YO.

- Most of the participants of the focus groups believe that businesses should adapt their products and services to align with health trends. Understanding the new needs; developing new product lines that align with the latest trends such as plant-based, organic, natural products, sugar-free, low-fat, low calories, functional foods & beverage with health benefits, protein bars, health drinks, and sustainable packaging solutions; and changing the marketing strategies; are the key recommendations provided to better meet the evolving consumer behaviors and choices.

Analysis by group

Group 1: Five marketing people – *Table 1*

Theme	Opinions
Shift in consumer demand	The shift in consumer demand experienced in their business is of significant importance, and its impact on their organizations is very high
Most affected business sectors	Food & Beverage, Restaurants, Fitness-related products and services, Healthcare, Hospitality and Tourism, Sports industry
Impact on businesses	The highest impact is on the Food & Beverage (up to 65%), with an overall impact varying from 30% to 65% depending on business sector
Top rising demands	Sugar-free, low-fat, low calories, are among the top rising demands
Evolving trends	Organic and plant-based products are on top of the evolving trends
Impact of evolving trends	Estimated at 30% on the overall food and beverage demands
Health drinks & protein bars	Health drinks and protein bars are on the rise – mainly observed among active and sporty young people
Sustainable products	The interest in sustainable products is growing, with tendency to be mainly exhibited among people between 30 and 40 YO
Recommended Business adaptations	Developing new product lines that align with the latest trends such as plant-based, organic, natural products, sugar-free, low-fat, low calories, functional foods & beverage with health benefits, protein bars, health drinks, and sustainable packaging solutions

Group 2: Four sales managers from food & beverage organizations – *Table 2*

Theme	Opinions
Shift in consumer demand	The shift in consumer demand experienced in F&B is of significant importance, and its impact on their organizations is very high
Most affected business sectors	Food & Beverage, Restaurants, Hospitality and Tourism
Impact on businesses	Impact is on the Food & Beverage estimated at 50% - 65%
Top rising demands	Organic and plant-based products - Sugar-free, low-fat
Impact of evolving trends	Estimated at 30% - 40% on the overall food and beverage demands
Health drinks & protein bars	Health drinks and protein bars are on the rise – mainly observed among active and sporty young people
Sustainable products	The interest in sustainable products is growing
Recommended Business adaptations	Developing new product lines that align with the latest trends such as plant-based, organic, sugar-free, low-fat

Group 3: Five professionals (two from healthcare, two from fitness sector, and one from pharmaceutical company) – *Table 3*

Theme	Opinions
Shift in consumer demand	The shift in consumer demand experienced in their business is of significant importance, and its impact on their organizations is very high
Most affected business sectors	After Food & Beverage, Healthcare & Fitness-related products and services are significantly affected
Impact on businesses	The highest impact is on the Food & Beverage, with an overall impact varying from 35% to 65% depending on business sector
Top rising demands	Sugar-free, low-fat, low calories, are among the top rising demands
Evolving trends	Organic and plant-based products are on top of the evolving trends
Health drinks & protein bars	Health drinks and protein bars are on the rise – mainly observed among active and sporty young people
Sustainable products	The interest in sustainable products is growing significantly
Recommended Business adaptations	Developing new product lines, namely plant-based, organic, natural products with health benefits, protein bars, health drinks

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Group 4: Six managers and professionals (Four managers from hospitality and tourism, one dietician, and one from sports industry) – *Table 4*

Theme	Opinions
Shift in consumer demand	The shift in consumer demand experienced in their business is of significant importance, and its impact on their organizations is very high
Most affected business sectors	Food & Beverage, Hospitality and Tourism, Restaurants, Sports industry are among top sectors influenced
Impact on businesses	The highest impact is on the Food & Beverage, with an overall impact varying from 30% to 65% depending on business sector
Top rising demands	Sugar-free, low-fat, low calories, are among the top rising demands
Evolving trends	Organic and plant-based products are on top of the evolving trends
Health drinks & protein bars	Health drinks and protein bars are on the rise – mainly observed among active and sporty young people
Sustainable products	The interest in sustainable products is growing, with tendency to be mainly exhibited among people between 30 and 40 YO
Recommended Business adaptations	Developing new product lines that align with the latest trends such as plant-based, organic, natural products, sugar-free, low-fat, low calories, protein bars, health drinks, and sustainable packaging solutions

4.2 Secondary Data

4.2.1 Summary of Key Findings from Secondary Data

From an exploratory study of secondary sources addressing the topic of health and wellness trends and their impact on consumption patterns, we summarize below the key studies and reports from the literature, that have been selected and adopted in our research as references and background to study, emphasize, and complement their findings through our primary findings extracted from the quantitative and qualitative surveys. Having a look into the data from literature reviews, and for a better understanding and interpretation, we summarize and arrange the major findings under four topics in a summary presented below:

1- Health and wellness trends
2- How the food and diet habits were impacted by Covid-19
3- The rise of organic food demand
4- Protein Bars and Health Drinks fast-growing markets

1-Health & Wellness Trends

McKinsey's latest Future of Wellness research surveyed more than 5,000 consumers across China, the United Kingdom, and the United States. Survey results show:

➤ 82% of US consumers, 87% in China, and 73% in the United Kingdom consider wellness a top or important priority in their everyday lives.

➤ Millennial and Gen Z consumers are spending more on health and wellness than older consumers, notably on their Appearance, Health, Fitness, Nutrition, Sleep and Mindfulness.

➤ Women's health, Healthy ageing, Weight management, Fitness, and Gut health, are among the main areas of growth in wellness (McKinsey & Company, 2024).

As per the consumer survey conducted by Deloitte on more than 17,000 consumers in 15 European countries, purchasing and consumption behaviors of European consumers are shifting to diets focusing on fruit and vegetables, and less meat and alcohol (Deloitte, 2023).

➤ 64% of respondents indicate that over the past 12 months they have become more interested in learning about the influence of food on their health.

➤ More than 70% of consumers are willing to pay at least 5% more for organic foods, and 17% would pay 10% more. Over 40% of respondents would like to see governments actively involved in promoting healthy and sustainably-sourced foods (Deloitte, 2023).

A survey conducted in 2021 by Borderless Access (a market research company) titled 'In good shape: how the Middle East is exploring healthy eating options'– the company surveyed consumers living in the Middle East (KSA & UAE). Survey outcomes:

- Saudi consumers appear to be particularly health-conscious, following the global pattern with a greater proportion of people opting for vegan meals. In the UAE there is still a dramatic shift towards meatless options.

- Low-fat, low-sugar, low-carbohydrate diets are among the most popular (38% to 44% of consumers) similar to global findings (Borderless Access, 2021).

A survey conducted by Boston Consulting Group's Center for Customer Insight (CCI) addressing consumer trends in urban parts of India - According to the report:

- 57% of consumers currently spend money on wellness and health. This includes 40% of customers who spend money on healthier food and 46% of consumers who spend money on services like gym memberships, diet advice, and health examinations.

- Over half of respondents said they occasionally walk rather than take a cab to a trip, and 40% said they use less media and the internet in order to make more time for physical activity.

- The desire to appear good and reduce weight is the main driving force.

- The satisfaction of having positive perceptions from others is among priorities (Jain, N., Sanghi, K. and Jain, A. 'Ten trends that are altering consumer behavior in India' – Boston Consulting Group's Center, 2019).

2-How the food and diet habits were impacted by COVID-19

The International Food Information Council (IFIC) 2020 Food & Health Survey 'The Covid-19 pandemic & Americans Food behaviors', conducted on 1,011 US consumers, has officially published its key findings that focus on "How the food and diet habits were impacted by COVID-19". According to the survey results:

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- More than 80% of US consumers have experienced some changes in their eating or food preparation habits.

- 54% of all surveyed consumers and 63% of those 50+ care more about healthy food and beverage choices in 2020 compared to previous years.

- 43% followed a diet in the last year.

- 26% say they snack multiple times a day.

- 28% are eating more protein from plant sources, 24% eating more plant-based dairy, and 17% are eating more plant-based meat alternatives.

- 74% limit or avoid sugars in their diet.

- 60% give importance to products produced in an environmentally sustainable.
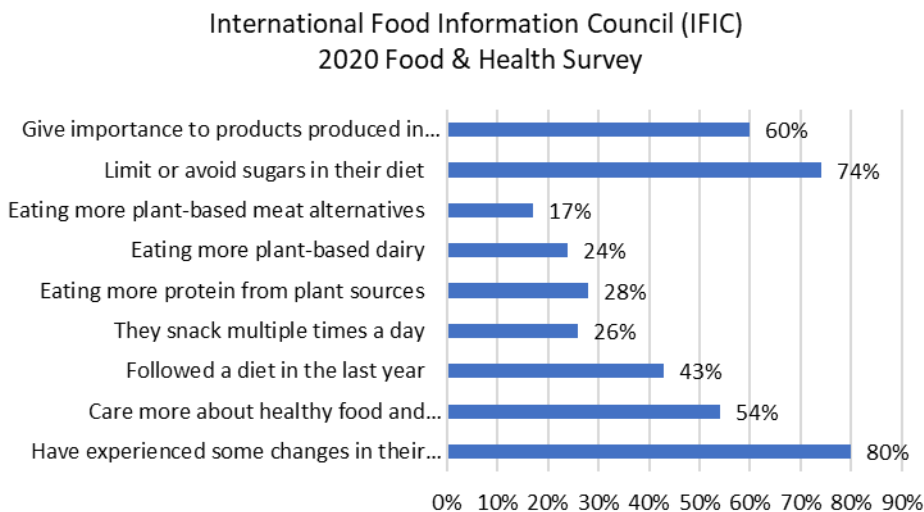

Figure 26: (**International Food Information Council, 2020).**

3-The rise of organic food demand

As per the organic certification program established by the U.S. Department of Agriculture (USDA), all organic foods must adhere to strict government regulations in order to be certified organic. USDA certification is required for any product that is labelled as organic on the

packaging or product description. The producer may also use an official USDA Organic seal if it is certified (Mayo Clinic).

The USDA guidelines describe organic foods on product labels as:

100% organic: This label may be used on foods with one certified organic ingredient or with many ingredients if all the items are certified organic. These items may have a USDA seal.

Organic: A food with at least 95% ingredients certified organic is labeled organic. The ingredients that aren't organic must be from a USDA list of approved additional ingredients. These items also may have a USDA seal.

Made with organic: Items that have at least 70% certified organic ingredients may be labeled "made with organic ingredients". The organic ingredients must be described on packaging. These products can't have a USDA Organic seal.

Products certified 95% or more organic may display this USDA seal.

- ➢ The organic food industry shows a growth potential of over 14% and by 2025 it is estimated to reach over USD 189.8 Billion (World Health Organization, 2020).

- ➢ According to "Precedence Research", the global organic food market size was valued at US$ 183.35 billion in 2022 and projected to US$ 546.97 billion by 2032, with a CAGR of 11.6%. North America organic food market expected to grow at 13.3% CAGR from 2023 to 2032. Europe is projected to reach US$ 186 billion by 2032, with 14% CAGR (Precedence Research, 2023 - www.precedenceresearch.com). *Figure 27*

ORGANIC FOOD MARKET SIZE 2022 TO 2032 (USD BILLION)

Source: www.precedenceresearch.com
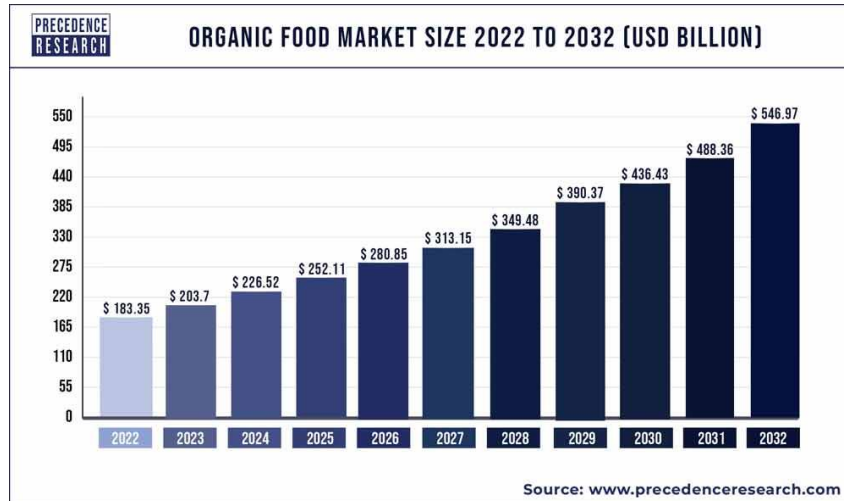
- Based on the market research conducted by Bonafide Research Company on Organic food, the surge in demand for clean-label food and beverage products is expected to be a significant driver for the growth of the organic and beverage industry. "Organic food is expected to reach more than 90% market share by 2027" according to the Food Engineering - 2023. ('Global organic food and beverage market to grow'- Food Engineering, 2023).

4-Protein Bars and Health Drinks fast-growing markets

According to the research conducted by "360 Industry Insights", the Protein Bars market is among the fastest-growing markets globally, with a market estimate of USD 1792.85 M in 2022 and projected value of USD 2880.55 M for 2028. A protein bar is a nutrition bar made from whole grains, dates, dried fruit, seeds and nuts. It offers several health benefits, such as boosting energy, strengthening muscles and bones, supporting weight management, and reducing sugar levels. It is rich in carbohydrates, minerals, vitamins, protein, and other essential nutrients, and available in various flavors. – (Protein Bars Market Size, Business Insights, Growth

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Opportunities and Driving Insights for [Food & Beverages] Sector – 360 Industry Insights, 2023).

As per the Mordor Intelligence Industry Report (2023) 'Health Drinks Market Size & Share Analysis, Growth trends and forecasts 2024-2029' - The health drinks category is one of the fastest-growing markets in the world. The size of the health drinks market is predicted to increase from USD 344.36 billion in 2023 to USD 408.80 billion by 2028. The report covers Healthy Canned Beverages, market segmented by product type (Fortified Fruit and Vegetables Juices, Nutritional Drinks, Functional Drinks, and other product types) – (Mordor Intelligence Industry Report, 2023).

4.2.2 Customers Behind the Rise of Protein Bars & Health Drinks Demand

Given their health advantages and ease of use in obtaining the recommended amount of protein, protein bars are among the nutritious snacks that consumers are purchasing in greater numbers. They can satisfy our hunger, give our bodies the vital amino acids they need, and promote muscle repair. Carbohydrate-rich meals and snacks pair well with protein bars and can help regulate blood sugar levels. Eating fruit and a protein bar together is a nutritious snack that can help maintain stable blood sugar levels. Apart from reasons related to leading a healthy lifestyle, the growth in consumption of health drinks is positively impacted by the rise of athletes, bodybuilders, casual or recreational users, and the growing number of people practicing sports activities. Health drinks that are made from whole, natural ingredients, are a great alternative to limit or avoid the consumption of sugary or high-calorie drinks.

To understand the customers' demand behind the rise of protein bars and health drinks demand, we identified five customer groups / profiles with the following behavioral characteristics:

Health-Conscious Consumers: Consumers from different socioeconomic backgrounds are growing increasingly health-conscious globally. As these customer group's requirements and expectations change, technology and the food sector should be able to adjust with them. Therefore, preparations for adapting to the current era and future scenarios should be made in all areas related to health and wellness. Along with innovative food production methods and safety research, any action taken in this area about the impact of these consumer attitudes on consumption patterns is crucial (Elsevier, 2022). Health-Conscious Consumers look for alternatives like protein bars and health drinks that meet their lifestyles and dietary goals, and prioritize their wellbeing. These individuals lead "wellness-oriented" lives, meaning they pay attention to their environment, manage their stress, maintain a nutritious diet, and are physically fit. "These customers are excellent consumers for health-related products and services and accept responsibility for their health," according to the National Institutes of Health.

Fitness Enthusiasts: This group consists of people who like to be physically healthy and have active lives, such as runners, gym-goers, and athletes. They are committed to preserving their own health and wellbeing through a balanced diet, frequent exercise, and other healthy habits. They are looking for easy and nutritious solutions to support their exercise and recovery. Building and rebuilding muscle requires protein. Many whole foods, including poultry, fish, lean meat, dairy products (as well as fortified plant-based substitutes), nuts, beans, pulses (like peas and lentils), and eggs contain it. The amount and intensity of training and exercise do raise the need for protein. For most exercisers hoping to gain and preserve muscle mass, the International Society of Sports Nutrition (ISSN) recommends a daily intake of 1.4–2g of protein per kilogram of body weight (Ibitoye – BBC).

Vitamins, minerals, and other elements found in health drinks can promote general health. In addition to providing a boost of vitamins and minerals, certain green juices and smoothies, for instance, may contain leafy greens and other nutrient-dense foods that help keep our bodies hydrated – a crucial component of maintaining good bodily functions.

Weight Management Seekers: Protein bars can be a filling snack or meal substitute for anyone trying to reduce weight or keep it off. Research has indicated that protein, being more satiating than fats or carbohydrates, aids in weight management. This is because the breakdown of protein into glucose occurs more slowly than that of fat or refined carbohydrates.

Health drinks provide weight management seekers a great alternative to sugary or high-calorie drinks. They provide a natural boost of energy without the crash that can come from consuming sugary drinks or caffeine. Drinks like green tea, or plant-based juice contain natural compounds that can help to boost energy levels.

Post-Workout Recovery Seekers: Protein bars with an optimal nutritional and energy balance can speed up the process of muscles recovering from exercise. Protein bars are a great pre- or post-workout snack because they give our bodies the right amounts of fats, carbohydrates, and protein to fuel them and stimulate muscle growth and repair. In addition to providing the body with essential vitamins and minerals, health drinks aid in hydration and energy levels.

Professionals and Travelers: Throughout the workday, professionals with hectic schedules who value energy, usability, and convenience seek out quick, practical, and wholesome snacks. For those who are often on the road for business or pleasure, portable protein bars and health drinks are also practical and healthy choices.

4.2.3 The Influence of Social Media on Health & Wellness Trends

Social media has a profound effect on every aspect of our contemporary life, including the health and wellness related practices and lifestyles. Health concerns, body image, social and psychological motivations, and lifestyles are some of the ways that social media has influenced. According to GlobalData's research, the worldwide consumer industry saw an increase in health and wellness-related posts on social media in 2023 compared to prior years. Coca-Cola accounted for the largest proportion of these posts. As shown in the research, health and wellness was one of the most talked about subjects in 2023, with more references than either innovation or COVID-19 combined. Coca-Cola had the highest number of references of health and wellness in the first quarter of 2023 among the top 50 consumer goods businesses.
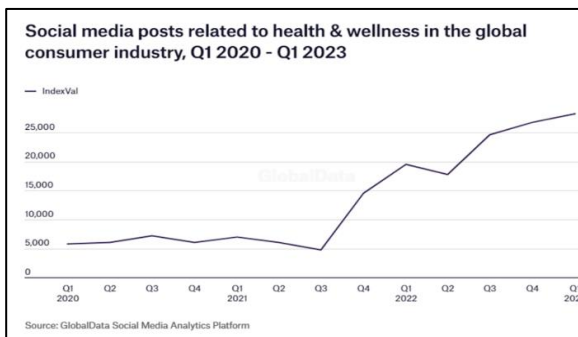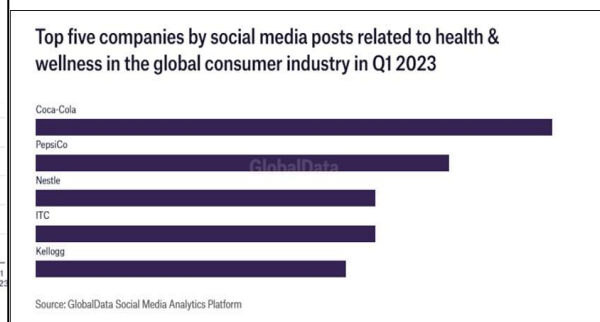

Figure 28   *Figure 29*

Source: https://www.just-drinks.com/influencers-dashboards/social-media-posts-health-wellness-consumer-industry/?cf-view

Social media has increased the importance of fitness aesthetics and had a big impact on the fitness industry. A larger emphasis is placed on obtaining a specific body type or appearance than on reaching general health and wellness objectives due to the rise of fitness models and influencers. Today, Social media opens the doors for anyone to become an influencer in the fitness industry by posting their exercise regimens, wholesome eating habits, and accomplishments on social media. Fitness influencers, including who lack formal training or

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knowledge, have the ability to project an idealized image that people aspire to reproduce in their bodies (Barpath Fitness, 2023).

Social media has significantly contributed to the transformation of body image perceptions and the questioning of conventional beauty standards. Fitness influencers are promoting general wellbeing and advocating for body positivity. These influencers help to create a more welcoming and inclusive fitness culture by communicating body shapes and fitness benefits.

CHAPTER 5 – ROLE OF INNOVATION & DESIGN THINKING

5.1 Role of Innovation in Developing Health Solutions

Innovation plays a crucial role in developing health solutions by driving creativity, addressing complex health challenges, and improving outcomes for individuals and communities. A detailed description is presented below, highlighting the role of innovation in the development of health solutions:

1. Novel Approaches to Health and Wellness: Innovation enables the exploration of novel approaches to promoting health and wellness, whether through new products, services, technologies, or interventions. By challenging traditional paradigms and thinking outside the box, innovators can uncover innovative solutions to longstanding health issues.

2. Personalization and Customization: Innovation enables the development of personalized and customized health solutions tailored to individual needs, preferences, and goals. By leveraging technologies such as AI, data analytics, and wearables, innovators can deliver targeted interventions that optimize health outcomes and improve adherence.

3. Efficiency and Accessibility: Innovation drives improvements in the efficiency and accessibility of healthy solutions, making them more affordable, convenient, and widely available. Whether through telemedicine, mobile health apps, or community-based initiatives, innovators can reach underserved populations and reduce barriers to accessing healthcare services.

4. Preventive approaches: Innovation enables the shift towards preventive and predictive approaches to healthcare, focusing on early detection, risk assessment, and lifestyle interventions to prevent disease and promote wellbeing. By harnessing technologies such as

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genomics, biomarkers, and predictive analytics, innovators can empower individuals to take proactive steps towards better health.

5. Behavioral Change and Engagement: Innovation facilitates the design of solutions that effectively motivate and engage individuals in adopting healthier behaviors and habits. By incorporating principles from behavioral economics, gamification, and social psychology, innovators can design interventions that drive sustained behavior change and improve health outcomes over the long term.

6. Interdisciplinary Collaboration: Innovation thrives on interdisciplinary collaboration, bringing together experts from diverse fields such as healthcare, technology, design, and social sciences to tackle complex health challenges. By fostering collaboration and knowledge exchange, innovators can leverage complementary expertise to develop holistic and integrated solutions that address multiple dimensions of health.

7. Sustainability and Resilience: Innovation promotes the development of sustainable and resilient health solutions that minimize environmental impact, optimize resource use, and support long-term viability. By embracing principles of sustainability, innovators can create solutions that are environmentally friendly, socially responsible, and economically viable.

8. Continuous Improvement and Learning: Innovation encourages a culture of continuous improvement and learning, fostering an environment where experimentation, iteration, and feedback are valued. By embracing a growth mindset and being open to failure as a learning opportunity, innovators can refine and optimize their solutions to better meet the evolving needs of users and stakeholders.

In summary, innovation is essential for developing healthy solutions that address the complex and evolving challenges of healthcare and wellness. By driving creativity, personalization, accessibility, preventive care, behavior change, collaboration, sustainability, and continuous improvement, innovation holds the key to unlocking transformative solutions that improve health outcomes and enhance quality of life for individuals and communities.

5.2 Contribution of Innovation to the Latest Development of Healthy Foods & Nutrition

Innovation has been instrumental in the latest developments of healthy foods, driving advancements in nutritional science, food technology, and consumer behavior changes. Innovation has contributed to recent developments in the realm of healthy foods and nutritional options through the following:

1. Functional Foods and Nutraceuticals: Innovation has led to the development of functional foods and nutraceuticals that offer health benefits beyond basic nutrition. These include fortified foods, probiotics, prebiotics, and dietary supplements designed to support specific health outcomes such as digestive health, immune function, and cognitive performance.

2. Plant-Based Alternatives: Innovation in food technology has spurred the rise of plant-based alternatives to traditional animal products, such as plant-based meats, dairy-free milks, and egg substitutes. These products cater to growing consumer demand for healthier, more sustainable, and ethically sourced food options.

3. Clean Label and Natural Ingredients: Innovation has driven the clean label movement, with a focus on using natural, minimally processed ingredients in food products. Clean label

innovations include natural sweeteners, preservatives, and flavor enhancers that allow manufacturers to create healthier and more transparent food formulations.

4. Alternative Protein Sources: Innovation has paved the way for alternative protein sources beyond traditional meat and dairy, including algae-based proteins, and cultured meat. These innovations offer sustainable and nutritious alternatives to conventional animal products, addressing environmental concerns and promoting healthier dietary choices.

5. Personalized Nutrition: Innovation in digital health and data analytics has enabled the development of personalized nutrition solutions tailored to individual needs, preferences, and health goals. These solutions leverage technologies such as AI, genetic testing, and wearable devices to provide personalized dietary recommendations and optimize nutritional outcomes.

6. Smart Packaging and Delivery Systems: Innovation in packaging and delivery systems has improved the shelf life, freshness, and convenience of healthy food products. Smart packaging solutions incorporate technologies such as QR codes, RFID tags, and intelligent sensors to provide real-time information on product freshness, traceability, and safety.

7. Behavioral Change Interventions: In behavioral science and psychology, Innovation has informed the design of interventions to promote healthier eating habits and lifestyles. These interventions leverage principles of behavioral economics, habit formation, and social influence to nudge consumers towards making healthier choices, whether through portion control, menu labeling, or gamification.

8. Sustainable Food Systems: Innovation has played a key role in promoting sustainability across the food value chain, from sourcing and production to distribution and consumption.

Sustainable food innovations include vertical farming, precision agriculture, food waste reduction technologies, and circular economy models that minimize environmental impact and promote resource efficiency.

Overall, innovation continues to drive advancements in healthy foods and solutions, offering opportunities to improve nutrition, sustainability, and consumer wellbeing in an increasingly complex and interconnected world. By fostering creativity, collaboration, and continuous improvement, innovation holds the potential to address some of the most pressing challenges facing global food systems and contribute to a healthier and more sustainable future for all.

5.3 Design Thinking

5.3.1 Design Thinking Principles and Importance

Design thinking is a non-linear, iterative process that is used to understand users, challenge assumptions, redefine problems and create innovative solutions to prototype and test (Interaction Design Foundation). Design Thinking has a human-centered core. It encourages practitioners to focus on the people they're creating the solution for, which leads to better products, services, and processes in an organization. When we sit down to create a solution for a business need, the first question should always be what the human need behind it is.

In employing design thinking, you're pulling together what's desirable from a human point of view with what is technologically feasible and economically viable. The process starts with acting and understanding the right questions. It's about driving simple mindset shifts and solving problems from a new direction with innovation and creativity.

5.3.2 Value-Centered Design

Value-centered design focuses on attainable goals that add business value, while improving user experience; it is rooted in the core values and offerings of the business. A value-centered design approach focuses on identifying and prioritizing users' needs, being aligned with the company's goals. This approach is powerful because it's about designing with intention.

As example, let's consider a company X "ecommerce platform" seeking to democratize the ecommerce business by allowing merchants to sell their products through its system, thereby increasing their visibility to a larger audience. From a profit-oriented standpoint, the primary objective of the company would be to augment the volume of sales conducted through their system, hence boosting their fees and profits. The merchants, from a user-centered perspective, are looking for easier access to the platform, easier inventory management, and smaller fees; while customers are looking for easy access to relevant products, fast purchasing process, fast and cheap deliveries. A value-centered approach aims at ensuring a right balance between business goals and final results delivered to users.

As one iterates towards a final solution, the value centered design framework which is based on the Design Thinking principle requires us to reassess with the goal of delivering appropriate, actionable and tangible strategies. The result is new innovative avenues for growth grounded in business viability and market desirability.

5.3.3 History of Design Thinking

Business analysts, engineers, scientists and creative individuals have been focused on the methods and processes of innovation for decades. Although more within the context of architecture and engineering fields, early glimpses and references to Design Thinking date back

to the 50's and 60's, and struggled to grapple with the rapidly changing environment in those times. New approaches to solving complex problems had their roots in the thinking applied to World War II, an event that had a profound effect on strategic thinking in the modern world and fundamentally changed the way we apply ourselves to management, production and industrial design.

In the struggle to fully understand every aspect of design, its influences, processes and methodology, in the 60's, efforts were made to develop a science out of the field of design, by applying scientific methodology and processes to understanding how design functions. The historical evolution of design thinking reflects a gradual shift towards a more human-centered, collaborative, and iterative approach to problem-solving and innovation in business organizations. As design thinking continues to evolve and mature, its impact on strategic management and organizational performance is likely to grow, shaping the future of business innovation and competitiveness.

The historical evolution of design thinking as a strategic management approach embraced by business organizations can be traced through several key milestones:

1. Early Origins (1950s-1960s): The roots of design thinking can be found in the work of design theorists and practitioners such as Herbert Simon, Buckminster Fuller, and Christopher Alexander. Their writings and methodologies emphasized the importance of human-centered design, problem-solving, and interdisciplinary collaboration.

2. Design Methods Movement (1960s-1970s): The design methods movement emerged during this period, led by scholars and practitioners who sought to formalize design processes and techniques. Organizations such as the Design Methods Group and the Royal College of Art in

London played key roles in advancing design methodologies and promoting the use of design in problem-solving across various domains.

3. IDEO and Stanford d.school (1980s-1990s): The modern era of design thinking can be traced to the founding of IDEO, a design and innovation consultancy in 1991. IDEO popularized the concept of design thinking through its human-centered design approach and its emphasis on prototyping, iteration, and interdisciplinary collaboration. Around the same time, Stanford University established the Hasso Plattner Institute of Design, also known as the d.school, which became a leading center for design thinking education and research.

4. Integration into Business Practice (2000s-Present): In the early 2000s, design thinking began to gain traction as a strategic management approach embraced by business organizations seeking to foster innovation and drive growth. Companies such as Apple, IBM, and Procter & Gamble were early adopters of design thinking principles, integrating them into their product development processes and organizational culture.

5. Publication of Key Books and Frameworks: Several influential books and frameworks have contributed to the popularization and dissemination of design thinking principles. Notable examples include "The Art of Innovation" by Tom Kelley, "Change by Design" by Tim Brown, "The Design of Business" by Roger Martin, "Design Thinking for Strategic Innovation" by Idris Mootee, and "Designing for Growth" by Jeanne Liedtka. These publications have provided practical guidance and case studies for applying design thinking in business contexts.

6. Expansion into Other Sectors and Industries: Design thinking has expanded beyond the realm of product design and innovation to encompass a wide range of sectors and industries, including healthcare, education, government, and social entrepreneurship, as well as food and beverage.

Organizations across different sectors have recognized the value of design thinking in addressing complex challenges, improving user experiences, and driving organizational changes.

7. Academic Research and Education: Design thinking has become a subject of academic research and education, with universities and business schools offering courses, workshops, and degree programs in design thinking and innovation management. This academic interest has further contributed to the institutionalization and professionalization of design thinking as a strategic management approach.

Businesses have gradually begun to acknowledge that design may serve as a distinguishing factor in adapting to evolving trends and consumer behaviors. Well-known companies like Apple, Microsoft, Disney, and IBM have consistently shown the inherent worth of design thinking as a competitive advantage that directly affects business performance and improve outcomes.

5.4 Design Thinking for Strategic Solutions

Design thinking provides strategic solutions to business organizations by fostering a human-centered, creative, and iterative approach to problem-solving. Design thinking contribution to strategic solutions is provided through:

1. Customer-Centric Approach: Design thinking places a strong emphasis on understanding and empathizing with the needs, preferences, and behaviors of customers. By prioritizing the end user's perspective, organizations can develop products, services, and experiences that truly resonate with their target audience, driving customer satisfaction, loyalty, and retention.

2. Innovation and Differentiation: Design thinking encourages a culture of innovation and experimentation, enabling organizations to differentiate themselves from competitors through unique and compelling offerings. By challenging assumptions, exploring diverse ideas, and prototyping solutions iteratively, organizations can uncover innovative solutions to complex problems and gain a competitive edge in the marketplace.

3. Problem Framing and Definition: Design thinking helps organizations reframe and define problems in ways that uncover new opportunities for growth and value creation. By reframing problems from the perspective of end users, organizations can identify unmet needs, pain points, and latent desires that inform strategic decision-making and drive business innovation.

4. Cross-Functional Collaboration: Design thinking fosters collaboration among multi-disciplinary teams, bringing together individuals with diverse expertise and perspectives to tackle complex challenges. By breaking down silos and promoting cross-functional collaboration, organizations can leverage the collective intelligence and creativity of their teams to generate strategic solutions that address multifaceted issues and drive organizational success.

5. Rapid Prototyping and Iteration: Design thinking encourages rapid prototyping and iteration, allowing organizations to test and refine strategic solutions quickly and cost-effectively. By creating tangible prototypes and soliciting feedback from stakeholders and end users early and often, organizations can validate assumptions, mitigate risks, and optimize solutions before scaling them up for implementation.

6. Flexibility and Adaptability: Design thinking promotes flexibility and adaptability in response to changing market dynamics, customer needs, and competitive pressures. By embracing uncertainty and ambiguity as inherent parts of the innovation process, organizations

can pivot quickly, seize emerging opportunities, and stay ahead of the curve in an increasingly dynamic and volatile business environment.

7. Continuous Learning and Improvement: Design thinking fosters a culture of continuous learning and improvement, encouraging organizations to reflect on their experiences, learn from failures, and apply insights to future endeavors. By adopting a growth mindset and cultivating a culture of experimentation and reflection, organizations can evolve and innovate over time, driving sustained success and growth.

Design thinking provides strategic solutions to business organizations by promoting customer-centricity, innovation, problem framing, cross-functional collaboration, rapid prototyping, flexibility, adaptability, and continuous learning. By integrating design thinking into their strategic decision-making processes, organizations can unlock new opportunities, solve complex challenges, and drive sustainable competitive advantage in the marketplace.

5.5 Role of Design Thinking in Healthy Food Innovation

Design thinking plays a crucial role in healthy food innovation by placing the focus on understanding the needs and desires of consumers, empathizing with their challenges in maintaining a healthy lifestyle, and creating solutions that are not only nutritious but also appealing and accessible.

1. Empathy and Understanding: Design thinking starts by empathizing with the consumers, understanding their dietary habits, lifestyle, cultural preferences, and constraints. This deep understanding helps innovators identify the pain points and barriers to adopting healthy eating habits.

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2. Problem Definition: Through the design thinking process, innovators define the problem space in healthy food innovation. This might include issues such as lack of time for meal preparation, limited access to healthy foods & drinks, confusion about nutritional information, or taste preferences conflicting with health goals.

3. Ideation and Prototyping: Design thinking encourages brainstorming and generating a wide range of ideas to address the identified problems. Innovators can then prototype these ideas quickly and iteratively to test their feasibility and appeal. This iterative approach allows for rapid refinement and improvement of concepts.

4. User-Centric Solutions: Design thinking emphasizes designing solutions with the end user in mind. In the context of healthy food innovation, this means creating products and services that align with consumers' tastes, preferences, dietary needs and lifestyles. Whether it's developing convenient meal kits, healthy-eating products, designing engaging nutritional solutions, or crafting appealing packaging for healthy snacks, user-centricity is key.

5. Collaborative Approach: Design thinking encourages collaboration among multidisciplinary teams, including nutritionists, chefs, psychologists, marketers, and engineers. This diverse expertise ensures that healthy food innovations are not only nutritious but also tasty, convenient, and socially acceptable.

6. Iterative Feedback Loop: Design thinking promotes an iterative feedback loop where prototypes are tested with real users, feedback is collected, and improvements are made based on that feedback. This process allows for continuous refinement and optimization of healthy food innovations.

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7. Sustainability and Scalability: Design thinking also considers the broader impact of food innovations on environmental sustainability and scalability. Innovations that are environmentally friendly, minimize food waste, and can be scaled to reach a wide audience are prioritized.

Overall, design thinking enables innovators to create holistic, human-centered solutions that address the complex challenges of promoting healthy eating habits in today's society. By combining empathy, creativity, and iterative testing, design thinking helps unlock new opportunities for innovation in the realm of healthy food.

5.6 Role of Technology in Designing Health Solutions

Technology plays a pivotal role in developing health solutions through the lens of design thinking by enabling innovative solutions, enhancing user experience, facilitating data-driven insights, and fostering collaboration. Technological contribution to the design thinking process for creating healthy products may be summarized as follows:

- Data Collection and Analysis: Technology enables the collection and analysis of vast amounts of data related to consumers' dietary habits, preferences, and health metrics. This data serves as valuable insights for understanding user needs and preferences, informing the design process, and creating personalized healthy products.

- Digital Prototyping and Simulation: Advanced technologies such as computer-aided design (CAD), virtual reality (VR), and 3D printing allow for rapid prototyping and simulation of healthy product concepts. This enables designers to visualize and test their ideas more efficiently, leading to faster iteration and refinement.

- Mobile Applications and Wearable Devices: Mobile applications and wearable devices provide platforms for delivering personalized health and nutrition solutions directly to consumers. These technologies can track users' food intake, provide real-time feedback, offer personalized meal plans, and facilitate behavior change through nudges and reminders.

- Nutritional Analysis Tools: Software tools and applications that analyze the nutritional content of food enable designers to create products that meet specific dietary requirements and health goals. These tools help ensure that healthy products are not only tasty but also nutritionally balanced.

- Smart Kitchen Appliances: Smart kitchen appliances equipped with IoT (Internet of Things) capabilities and AI (Artificial Intelligence) algorithms streamline the cooking process, making it easier for consumers to prepare healthy meals at home. These appliances can suggest recipes based on available ingredients, monitor cooking progress, and adjust settings for optimal results.

- Blockchain and Traceability: Blockchain technology can enhance food traceability and transparency, allowing consumers to verify the origins and quality of ingredients used in healthy products. This builds trust and confidence in the product's safety and sustainability.

- Collaborative Platforms: Online collaborative platforms and digital workspaces facilitate communication and collaboration among multidisciplinary teams working on developing healthy products. These platforms enable real-time collaboration, idea sharing, and feedback exchange, regardless of team members' geographical locations.

In summary, technology serves as an enabler and catalyst for design thinking solutions in developing healthy products by providing tools for data-driven insights, rapid prototyping,

personalized experiences, and collaborative innovation. By leveraging technology effectively, designers can create innovative and impactful solutions that promote healthier lifestyles and improve overall wellbeing.

5.7 Role of Creativity in Designing Innovative Health Solutions

Creativity is essential for designing innovative health solutions by sparking imagination, fostering collaboration, and empowering designers to push the boundaries of what's possible in promoting health and wellbeing. By harnessing the power of creativity, designers can drive meaningful impact and inspire positive change in individuals, communities, and societies.

In the context of health and wellness, creativity plays a fundamental role in designing innovative healthy solutions by fostering fresh perspectives, generating novel ideas, and overcoming complex challenges in the realm of health and wellness solutions. A description of how creativity contributes to the design of innovative healthy solutions is given below:

1. Reframing Problems: Creative thinking allows designers to reframe problems in the context of health and wellness, identifying unique angles and opportunities for innovation. By questioning assumptions and exploring unconventional approaches, designers can uncover new solutions to longstanding health challenges.

2. Generating Diverse Ideas: Creativity encourages the generation of diverse ideas and solutions, ranging from novel food products to innovative health interventions. Through techniques such as brainstorming, mind mapping, and lateral thinking, designers can explore a wide range of possibilities and concepts for promoting healthier lifestyles.

3. Cross-Pollination of Ideas: Creative thinking involves drawing inspiration from diverse disciplines and industries beyond traditional health and nutrition domains. By integrating

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insights from fields such as technology, psychology, design, and sustainability, designers can develop holistic and interdisciplinary solutions to complex health problems.

4. Prototyping and Experimentation: Creativity drives the rapid prototyping and experimentation of new ideas and concepts. By quickly iterating and testing prototypes, designers can gather valuable feedback, refine their solutions, and uncover unexpected insights that lead to innovative breakthroughs in healthy product design.

5. User-Centered Design: Creative thinking fosters a user-centered approach to design, prioritizing the needs, preferences, and experiences of end users. By empathizing with users and understanding their motivations, designers can create solutions that resonate with their target audience and drive behavior change towards healthier choices.

6. Embracing Constraints: Creativity thrives within constraints, whether they are budgetary, technological, or regulatory in nature. By embracing constraints as opportunities for innovation rather than limitations, designers can develop creative solutions that address real-world challenges in the health and nutrition space.

7. Storytelling and Communication: Creativity enables designers to effectively communicate their ideas and solutions through compelling storytelling and visual representations. By crafting narratives that resonate with stakeholders and consumers, designers can inspire engagement, advocacy, and adoption of healthy innovations.

8. Cultivating a Culture of Innovation: Creativity fosters a culture of innovation within organizations and communities, encouraging experimentation, risk-taking, and continuous learning. By nurturing a supportive environment where diverse perspectives are valued and

creativity is celebrated, designers can catalyze transformative change in the pursuit of healthier futures.

5.8 Integrating Design Thinking into the Organization's Strategic Vision

Integrating design thinking into the organization's strategic vision can provide a powerful framework for driving innovation, enhancing customer experiences, and gaining a competitive advantage in the marketplace. By fostering a culture of customer-centricity, innovation, collaboration, and continuous improvement, organizations can position themselves for long-term success and leadership in their respective industries.

Design thinking can be fundamental for driving sustainable growth through a well-defined process that includes:

- Customer-Centricity: Design thinking places a strong emphasis on understanding and empathizing with the needs and desires of customers. By integrating customer-centric principles into the strategic vision, organizations can prioritize solutions that resonate with their target audience, leading to higher customer satisfaction, loyalty, and market share.

- Innovation and Differentiation: Design thinking encourages a culture of innovation and experimentation, driving organizations to constantly explore new ideas and solutions. Embedding innovation as a core component of the strategic vision enables organizations to differentiate themselves from competitors by offering unique products, services, and experiences that address unmet customer needs.

- Agility and Adaptability: Design thinking promotes an iterative and flexible approach to problem-solving, allowing organizations to adapt quickly to changing market dynamics and customer preferences. By integrating agility and adaptability into the strategic vision,

organizations can respond more effectively to competitive threats and seize emerging opportunities in the marketplace.

- Collaboration and Cross-Functional Teams: Design thinking thrives on collaboration among multidisciplinary teams, bringing together diverse perspectives and expertise to solve complex problems. By fostering a culture of collaboration and cross-functional teamwork within the organization, the strategic vision can leverage the collective intelligence and creativity of employees to drive innovation and achieve strategic goals.

- Continuous Improvement and Learning: Design thinking emphasizes the importance of continuous learning and improvement through feedback and iteration. Integrating a culture of continuous improvement into the strategic vision helps organizations foster a mindset of experimentation and learning, enabling them to stay ahead of competitors and continuously evolve in response to changing market dynamics.

- Risk-Taking and Resilience: Design thinking encourages risk-taking and resilience in the face of failure, recognizing that innovation often involves uncertainty and experimentation. By embedding a tolerance for risk-taking and resilience into the strategic vision, organizations can empower employees to take calculated risks, learn from failures, and ultimately drive long-term growth and success.

- Alignment with Business Goals: Design thinking should be aligned with the organization's overall business goals and objectives to ensure that innovation efforts contribute to sustainable growth and profitability. By integrating design thinking into the strategic vision, organizations can align innovation initiatives with key business metrics such as revenue growth, cost reduction, and market expansion.

## 5.9 Applying Design Thinking in Food & Beverage – A Powerful Process

5.9.1 Tools of Exploration

Embedding Design Thinking principles and methodology into food & beverage organizations includes using the **STEEP** analysis to understand the impact of macro environmental trends in the context of the design challenge, focusing on the five key areas, socio-demographic, technological, economic, environmental /ecological, and political/legal. Factors like buying patterns, lifestyles, consumption habits, age, gender, health-conscious, and purchasing power have impact on the organization's product development and on its Design Thinking.

5.9.2 Stakeholder Mapping

Stakeholder Mapping is another tool used by companies to identify individuals, groups and organizations that have direct influence on the design challenge (Dam and Siang, 2022). Stakeholder Map helps visually identify the stakeholders, their roles and relationships when working on a design project.

Below is a sample of Stakeholder Map based on interest/ influence information – *Figure 30*

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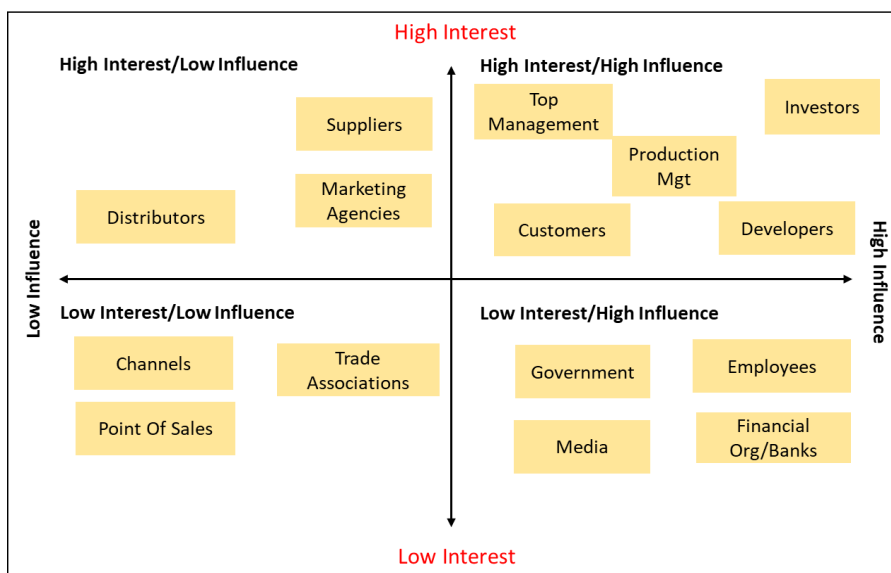
Based on their level of interest and influence each quadrant in the map requires different actions or level of engagement (Hendricks, 2023).

High Interest /High Influence stakeholders: Investors, top management, production management, developers, and customers need to be managed closely and regularly engaged.

Low Interest /High Influence stakeholders: The company's mid and low-level employees, banks, financial institutions, government, and media – to keep them satisfied/actively consult.

High Interest /Low Influence stakeholders: Distributors, suppliers, marketing agencies – to keep informed and maintain interest and engagement.

Low Interest /Low Influence stakeholders: Channels, POS, trade associations – to monitor and provide information as needed.

Stakeholder links and relationship mapping is shown below: blue circles represent stakeholders with closer involvement and higher engagement with the design challenge. Stakeholders in Black circle have indirect involvement and lower engagement. *Figure 31*

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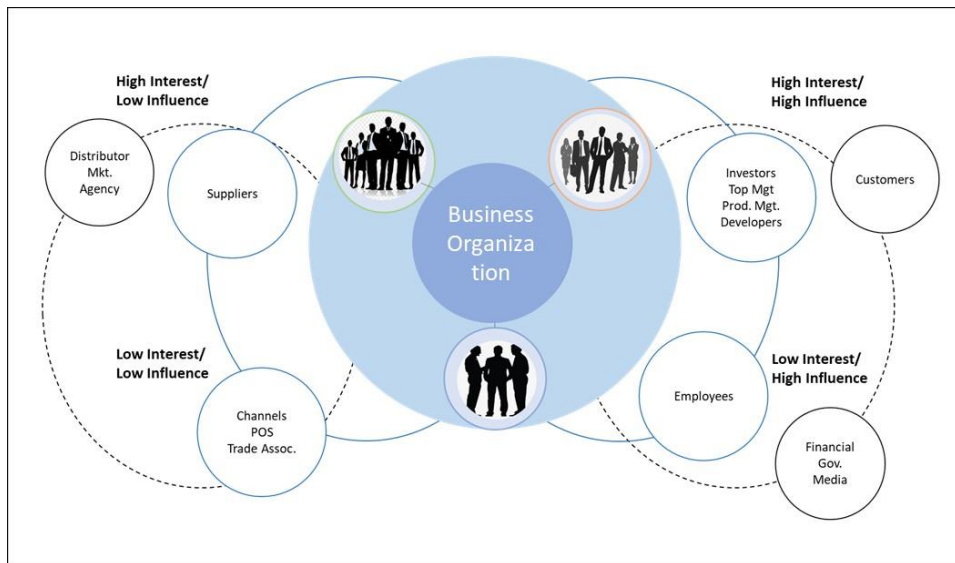
5.9.3 Empathize

Design Thinking principles can be applied to empathize with consumers of health & wellness-related products and services, notably food and beverage, personal care, and healthcare solutions. It has become more important than ever to understand people, their living and working conditions, and asking relevant questions related to their day-to-day meal needs (Singh and Sharma).

Design thinking approach puts consumers' satisfaction on top of the organizations' priorities and aims to provide products that always meet customers' expectations. Because consumers are the central point of attention and interest for the concerned company, "Empathy" helps gain a deeper understanding of customers' problems, emotional and physical needs.

Empathizing with customers is a key initiative to be adopted by marketing and design teams to support the business plans and design thinking process by consumer insights. Among their top priorities organizations need to focus on the implications resulting from the emerging trends with their impact on consumer behaviour and choices.

As methods and tools, we will describe the benefits of using the "Field observations", "Interviews", and "Needs finding". A persona development is designed for each line of business based on the empathy outputs and on the customer journey maps.

METHOD	Method Description	Purpose	Relevance to the Design Challenge
1. FIELD OBSERVATION	Uncover insights & behaviors	Uncover insights & behaviors	Provide the desired product/solution
2. DEEP INTERVIEW	Interview/conversation	Understand deep insights & motivations	Create deep solutions with emotional connection
3. NEEDS FINDINGS	Patterns and relationships SPICE and SAM frameworks	Convert data from observations and user interviews into usable data cluster	Provide specific & deep solutions to unmet needs

4. PERSONA DEVELOPMENT	Humanizing LIBANFRESH target customer	Create consumer model	Create target consumer's model. Character.

Field observations enable the observation of consumers in their natural environment and uncover their insights and behaviors. The observation needs to look at both the "visible" and "invisible" sides. The framework will set out the context addressing the "Where, When, Who and Why", focusing on customers supporting the health & wellness trends and looking for healthy food and beverage products. Define age, location, country with sample representativity criteria. Focus on understanding consumers of the biggest markets. Then the Insights you are looking for such as consumer needs and preferences influenced by health-conscious concerns, consumption patterns and differences that explain the underlying reasons for the differences in sales and items sold from market to market, consumption modes, impact of economic and socio demographic factors, problems faced by consumers. Then the Challenges, what are the pain-points, obstacles, limitations? And finally, the Opportunities by market, segment, target group.

Deep consumer interview is another method of the empathize. It helps understand deeper insights, such as feelings, motivations, pains, and aspirations. This method will provide the company an in-dept understanding of "What is behind their preferences and behaviors" to create deep solutions with emotional connection. Creating an Empathy map before each interview is vital to generate questions relevant to the targeted audience.

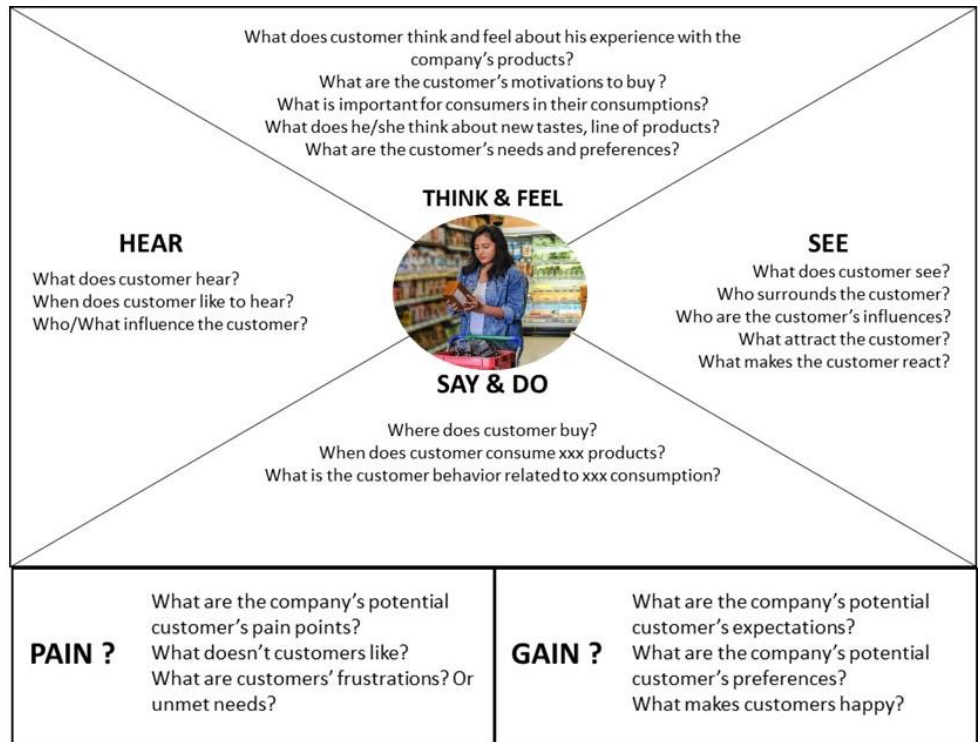Example of Empathy Map illustrated for a food & beverage company.

Figure 32: Example of Empathy Map

Needs finding is a process transforming data from observations and consumer interviews into usable data cluster. It helps organizations uncover the deep customer needs. Seeking the wisdom of "Why" using SAM (Think-Feel-Do) and SPICE (Social-Physical-Identity-Communication-Emotion) frameworks looking for patterns and relationships (Design Thinking the Guidebook).

Persona Development should be designed for each line of business based on the empathy outputs and on the customer journey maps, creating target consumer's models to inspire and lead design thinking teams for future product development.

5.9.4 Customer Journey Map

To gain deeper insights into customers' problems, the Customer Journey Map is another tool used to analyze every touchpoint a customer might encounter with the brand. It's based on a set

of events from awareness to desirability and purchase, to product experience and loyalty, with various emotions the customer goes through.

Example of a Customer Journey Map: *Figure 33*

PHASES	AWARENESS	DESIRABILITY	PURCHASE	EXPERIENCE	LOYALTY
TOUCHPOINT/ EVENT	**Environmental Influence** Word of mouth Social media Adv. Friends Society habits Trends	**Connected with sources of information** Choice of product based on information. Desirability, Features, Characteristics, Look, Price.	**Physical contact with the product** Action to own the product. Visit to POS/ Online	**Consuming the product** Moment of Joy. Assessing level of satisfaction.	**Repeated purchase/consumption** Repeat purchase, And recommend to friends
EMOTIONS/ FEELINGS	Excitement Anticipation Expectancy Hope	Feeling of hesitation. Looking for the best choice/ideal solution. Trusted option is reassuring. Decision making.	Readiness to enjoy. First contact with the product. See, Touch, Feel and Own the product "HAPPINESS"	Satisfaction/ or Not satisfactory. Happy to buy the product. Try another solution	Great brand /product experience. Happy to get it every day.

Various emotions the customer goes through are describes below by phase/event:

Awareness phase: Customers are emotionally reacting to the environmental influence, they experience a feeling of excitement, anticipation and hope based on the information surrounding them.
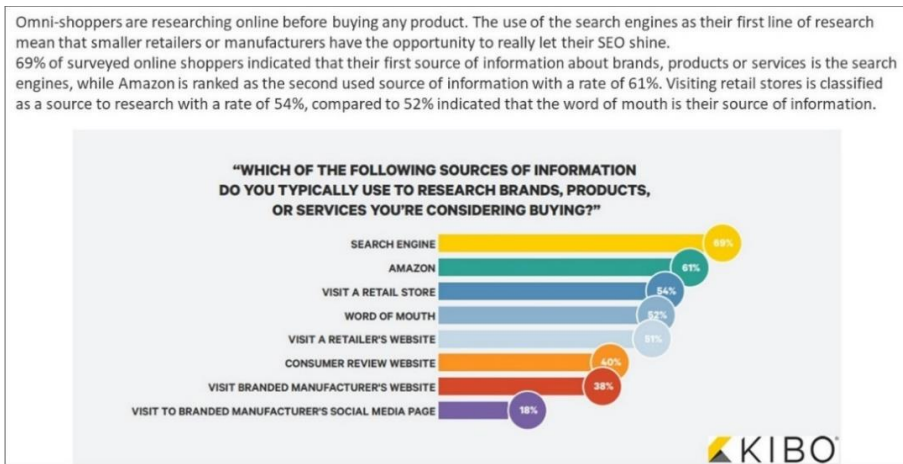
Desirability phase: Connected with sources of information, customers are looking for the best choice/product, they encounter a feeling of uncertainty and hesitation for their choice. Emotional decision/choice is made, since not based on a trial. The Graph below shows the most used Sources to Research about Brands & Products (KIBO, 2018).

Purchase phase: This is the action phase where customers make their purchase and own the product. Their first contact with the product "See, Touch, Feel, Own" – Feeling of "Happiness".

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Experience phase: Feeling of satisfaction, or the opposite. Happy with the product or try another option.

Loyalty phase: Consumers adopt the product with repeated purchases. They enjoy a great brand experience, happy to get it every day. Glad to recommend to friends "Advocacy".

Sources of information used to research brands, products, or services: *Figure 34*

Source: 2018 | KIBO - A leading company for digital commerce solutions.

https://www.digitalmarketingcommunity.com/indicators/purchasing-online-sources-information-brands/

Illustration of Customer Journey showing emotions & feelings: *Figure 35*

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5.9.5 Analyze

Based on the outcomes of the Emphasize phase the design thinking team will undertake the "Define" stage where the data collected from "Field observations", "Interviews", "Needs findings" and customer journey mapping are gathered, sorted out and analyzed to identify which problem(s) the company needs to solve. The purpose is to create a problem statement through the process of "analyzing to synthesize" (Stevens, 2021). In this stage the information gathered will be synthesized into common themes, patterns, and pain points to discover interesting findings which will help in defining Customer Focused Problem and creating design solutions.

Figure 36: Affinity mapping

The goal of the "Define" stage is to create a customer focused meaningful and actionable Problem Statement or Point of View (POV). Based on the "Affinity Mapping" a Problem Statement will identify the current problem and focuses on the goal that needs to be achieved in the Design process. Customers being the center of the Problem statement, it addresses "Who the customers are?", "What they need?" and "What are the insights gathered?".

To write the problem statement the design team uses the Point of View (POV) structure, which is a brief description of the problem that needs to be solved. The POV statement will be turned into "How might we" (HMW) questions enabling the initiation of the Ideation process (Zhmikhov, 2022, para.1.).

POV statement is structured as follows: [Customer . . . (descriptive)] needs [Need . . . (verb)] because [Insight . . . (compelling)], (Dam and Siang, 2020).

An example of hypothetical POVs and HMW questions for a food & beverage organization with relevance to 4 potential persona profiles is given below:

1-Persona Profile (1): *"A 23 YO young man who leads a wellness lifestyle, concerned with nutrition and healthy food & beverage. He is looking for healthy drinks, that can fit in with his daily consuming behaviour".*

Insights: Health-conscious consumers look for what can meet their needs for healthy consumption but not all brands focus on this, which greatly limits their choices.

Scientific Background: Caloric Beverages with Some Nutrients - This category includes fruit juice, vegetable juice, whole milk, sports drinks, vitamin-enhanced waters, and alcoholic beverages. Each has its pluses and minuses. One-hundred-percent fruit juice has most of the nutrients of the fruit itself, but it usually delivers more energy. The Dietary Guidelines for Americans recommends no more than one serving (4 ounces) of 100% fruit juice as part of the daily fruit intake (Harvard T.H. CHAN, no date).

Needs: Customers should have the choice of product they need to fit in with their wellness lifestyle.

POV: Potential customers need to have the choice of product that fits in with their wellness lifestyle since not all brands focus on this, which greatly limit their choices.

HMW: How might we help the customer get the choice of product that fits in with his wellness lifestyle?

2-Persona Profile (2): *"A 34 YO married woman always looking for premium products because she cares about the health of her kids, she wants 100% natural juices with no additives".*

Insights: Mothers often look for natural products for their children because they care about their health but not all brands are 100% natural juices.

Needs: Consumers should be able to find and buy 100% natural juice as per their choice and preferences.

POV: Potential customers need to find and buy 100% natural juice because they care about their health and have wellness concerns, but not all brands offer it.

HMW: How might we help the customer find and buy 100% natural juices that meet his /her preferences?

3-Persona Profile (3): *"A 36 YO man with family, living in a small city 30 KM from the capital, he shops his daily food & beverage products from the store near his apartment. He is barely able to find his choice of food & beverages for his family's daily consumption".*

Insights: Families in rural areas and small cities often look for their convenience, they need to buy from stores at a short distance from their location, but the availability of products is very limited in these stores.

Needs: Consumers in rural areas and small cities should be able to find and buy their food & beverages from stores in their areas.

POV: Potential customers need to buy their food & beverages from stores in their areas because they are not able to find their choice of product for their family's daily consumption, which makes them feel anxious.

HMW: How might we help customers find and buy our products from stores in their areas?

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4-Persona Profile (4): *"A 38 YO woman living with her 2 children. She is responsible for her family and has limited purchasing power. She is always looking for affordable prices to buy healthy food for her family."*

Insights: Families with limited purchasing power often look for affordable prices, they need to buy food and beverage within their budget, economy packs are a good choice for them because they offer more value at a lower price, but not all brands offer economy packs.

Needs: Consumers and families with limited budgets should be able to find and buy economy packs.

POV: Potential customers need to find and buy economy packs for family consumption, because their budget is limited, which causes for them a feeling of discomfort.

HMW: How might we help *c*ustomers find and buy economy packs for family consumption?

Organizations can follow this process to define key POV statements based on the Empathy outcomes. The four Persona described above represent profiles of potential customers with different pain points. Persona 1 & 2 express pain points related to brand and value provided to customers "Brand experience", Persona 3 expresses a pain point related to product availability, and Persona 4 is an example of pain point related to price affordability.

5.9.6 Ideation

The aim of the Ideation stage is to look beyond the usual methods of solving problems and develop innovative solutions. The problem statement / POV having been defined, the design team starts the Ideation process using various techniques, like Brainstorming sessions commonly used by companies to generate new ideas. Organizing brainstorming is an efficient way to generate ideas through a deep dive into the problem statements. The design team needs to drive the sessions towards finding solutions for the POVs already defined. Based on the

hypothetical POVs the ideas would be generated around the customer persona, expressing pain points related to products and brands. Challenging Assumptions is another popular ideation technique, it consists in coming up with several assumptions. The design team will then go through these assumptions and discuss whether they are true, or if they're simply there because they've never been questioned. SCAMPER technique is also a creative brainstorming method used to generate new ideas from different perspectives. It enables the design team to explore innovative alternatives and options based on existing products.

5.9.7 Prototyping & Testing

Prototyping is an approach that makes ideas and concepts more tangible, and visual as compared to written ideas enabling testing and gathering feedbacks. The design team starts the process by clustering the ideas by theme, transforming them into concepts that address the major POVs related to the defined Persona profiles, then determining what appropriate prototype to design for each Persona building on the concept. Designing the prototype is the 2nd step in the process, it consists of creating digital mock-ups showcasing a three-dimensional design of the suggested product. Then developing physical prototype with various looks, packaging designs with labels and attractive relevant messages.

The Testing process can be done through focus groups or through live remote testing which is a less expensive alternative and practical for testing a digital prototype at an early stage, before the "Focus group". It enables observation and getting first feedback over a video call. The goal is to evaluate the prototype, collect feedback, and determine customer satisfaction status (workshopper.com, 2021). The testing process is completed by iterative refinement steps. Based on testing outcome, the design team will refine the product design "look and taste" iteratively

and continue testing until reaching a desirable product-market fit, then scaling up its testing to validate the product acceptability.

5.9.8 Role of AI in Prototyping & Testing

AI-powered prototyping and testing tools offer a wide range of capabilities that enhance efficiency, accuracy, and effectiveness throughout the design process. As artificial intelligence (AI) continues to evolve, its role in prototyping and testing is poised to revolutionize the way designers create, validate, and iterate on design concepts. The AI integration with prototyping and testing processes has the power to play a critical role in driving design innovation and shaping the future of user-centered design through various dimensions.

Automated Prototyping: AI enables automated prototyping by generating design variations based on specified parameters and objectives. Designers can provide input such as design constraints, target audience preferences, and functional requirements, and AI algorithms can quickly generate multiple design alternatives. This accelerates the prototyping phase, allowing designers to explore a wider range of possibilities in less time.

Generative Design: Generative design, powered by AI, takes automated prototyping to the next level by autonomously generating design solutions based on user-defined goals and constraints. AI algorithms analyze input parameters and iterate through numerous design iterations to optimize performance, efficiency, or other specified criteria. This approach encourages creativity and innovation by uncovering design solutions that may not have been considered through traditional methods.

Predictive Prototyping: AI can leverage predictive modeling techniques to anticipate user needs and behaviors, guiding the prototyping process. By analyzing large datasets of user

interactions, preferences, and feedback, AI algorithms can predict how users will interact with a design and identify potential areas for improvement. Designers can use these insights to inform prototyping decisions and create more intuitive and user-friendly interfaces.

Virtual Prototyping and Simulation: AI-driven virtual prototyping and simulation tools allow designers to visualize and test design concepts in virtual environments before physical implementation. These tools use AI algorithms to simulate real-world interactions and behaviors, providing valuable insights into the performance and usability of a design. Virtual prototyping reduces the need for costly and time-consuming physical prototypes, enabling rapid iteration and refinement of design concepts.

User-Centric Testing: AI enhances user-centric testing by automating the collection, analysis, and interpretation of user feedback. Natural language processing (NLP) algorithms can analyze user comments, reviews, and survey responses to extract valuable insights and sentiment analysis. AI-powered tools can also conduct A/B testing and multivariate testing to compare different design variations and identify the most effective solutions based on user engagement and conversion rates.

Real-Time Feedback: AI facilitates real-time feedback during the prototyping and testing phases by monitoring user interactions and providing instant insights to designers. Through eye-tracking technology, heatmaps, and clickstream analysis, AI algorithms can identify patterns and trends in user behavior, allowing designers to make data-driven decisions in real-time. This continuous feedback loop accelerates the iteration process and ensures that design solutions align with user needs and preferences.

Accessibility and Inclusivity Testing: AI-driven accessibility testing tools help designers ensure that their prototypes are accessible to users with disabilities. AI algorithms can identify potential accessibility barriers, such as low contrast ratios, missing alt text, or keyboard navigation issues, and provide recommendations for improvement. By integrating accessibility testing into the prototyping process, designers can create more inclusive and equitable design solutions.

Cross-Platform Compatibility Testing: AI facilitates cross-platform compatibility testing by automatically adapting design prototypes to different screen sizes, resolutions, and device types. AI algorithms can analyze the underlying code and assets of a prototype and generate optimized versions for various platforms, such as desktop, mobile, and tablet. This ensures a consistent and seamless user experience across different devices and environments.

Ethical and Responsible Testing: AI assists designers in conducting ethical and responsible testing by detecting and mitigating potential biases and ethical implications in design solutions. AI algorithms can analyze data inputs, identify biases, and provide recommendations for bias mitigation strategies. By integrating ethical testing into the prototyping process, designers can create more inclusive and socially responsible design solutions that prioritize user well-being and fairness.

Continuous Improvement: AI enables continuous improvement of design prototypes through iterative testing and optimization. By analyzing user feedback and performance metrics, AI algorithms can identify areas for refinement and suggest design modifications to enhance usability, engagement, and satisfaction. This iterative approach ensures that design solutions evolve and improve over time to meet the changing needs and expectations of users.

The future role of AI in prototyping and testing is transformative, empowering designers to create more innovative, user-centric, and inclusive design solutions. By leveraging AI-driven automation, predictive modeling, virtual simulation, and real-time feedback, designers can streamline the prototyping process, optimize design solutions, and deliver exceptional user experiences across diverse platforms and audiences.

Mapping out the Design Thinking process showing each step in the process used to create an innovative customer-driven product.
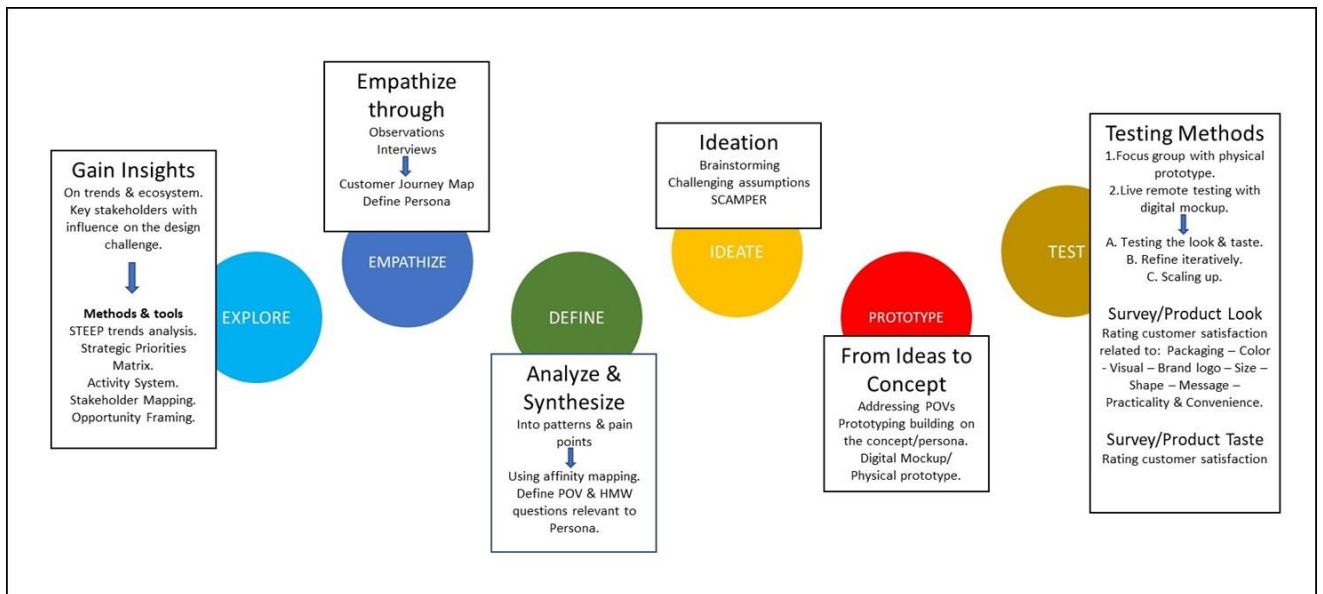

Figure 37: Design thinking process

5.10 Recommendations for Business Organizations

Business organizations can develop effective and impactful healthy solutions that contribute to the wellbeing of individuals and communities while also driving business growth and success. Initiatives recommended for business organizations concerned with developing healthy solutions include:

1. Conduct Comprehensive Market Research: Invest in thorough market research to understand consumer preferences, trends, and pain points related to health and wellness. Identify unmet needs and opportunities for innovation in the healthy solutions space.

2. Embrace Design Thinking: Implement a design thinking approach to product development, focusing on empathy, ideation, prototyping, and iteration. Place the end user at the center of the design process to create solutions that truly resonate with their needs and preferences.

3. Collaborate with Experts: Partner with nutritionists, dietitians, chefs, and other health experts to ensure that the products or services are based on sound nutritional principles and promote overall wellbeing.

4. Leverage Technology: Utilize technology to enhance the development and delivery of healthy solutions. This could include mobile apps for tracking nutrition, IoT devices for monitoring health metrics, or AI algorithms for personalized recommendations.

5. Focus on Transparency and Trust: Be transparent about the ingredients, sourcing, and production processes of the healthy solutions. Build trust with consumers by providing accurate and reliable information about the nutritional value and health benefits of your products.

6. Offer Education and Support: Provide educational resources and support to help consumers make informed choices about their health and nutrition. This could include cooking tutorials, meal planning guides, or online forums for sharing tips and success stories.

7. Promote Sustainability: Prioritize sustainability in the development and packaging of healthy solutions. Use eco-friendly materials, minimize waste, and support ethical sourcing practices to reduce environmental footprint.

8. Engage in Community Outreach: Engage with local communities through events, workshops, and partnerships to promote healthy lifestyles and foster a sense of social responsibility. Demonstrate commitment to community health and wellbeing.

9. Seek Feedback and Iterate: Continuously seek feedback from customers, stakeholders, and experts to refine and improve your healthy solutions. Be open to criticism and willing to adapt based on the evolving needs and preferences of the target audience.

10. Measure Impact: Establish metrics to measure the impact of your healthy solutions on consumer health outcomes, behavior change, and business performance. Use data analytics to track progress and make data-driven decisions for future initiatives.

5.11 Innovation & Design Thinking in Food and Beverage – Case Studies

The food & beverage industry has increasingly embraced Innovation and Design Thinking to stay competitive, address consumer demands, and drive growth. The three cases provided below show how companies in the food & beverage industry can leverage the power of Innovation & Design Thinking to better engage with their customers and generate big solutions. I briefly introduce and summarize the main challenges and solutions related to each case to encourage Food & Beverage companies embracing Design Thinking as a key strategic tool for innovative solutions, while driving customer-centric approaches and fostering a culture of innovation.

Case 1- Nestlé's Nespresso

Nespresso, a brand owned by Nestlé, revolutionized the coffee industry by applying design thinking principles to create a premium coffee experience. Nespresso's innovation was not just in the quality of the coffee but also in the design of its coffee machines and the convenience of its single-serve capsules.

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Relying on Design Thinking: Nespresso recognized the need to appeal to consumers who desired café-quality coffee at home but lacked the time or expertise to brew it manually.

The Design solution: By adopting a user-centered approach, Nespresso focused on designing sleek, user-friendly machines and developing a wide range of coffee capsule flavors. The company also emphasized exclusivity and luxury through its boutique stores and membership programs, creating a lifestyle brand around the coffee-drinking experience.

The Design Thinking outcome: Nespresso's success demonstrates the importance of innovation in both product design and business model innovation. By embracing design thinking, Nestlé was able to tap into a lucrative market segment and create a premium brand that continues to thrive globally.
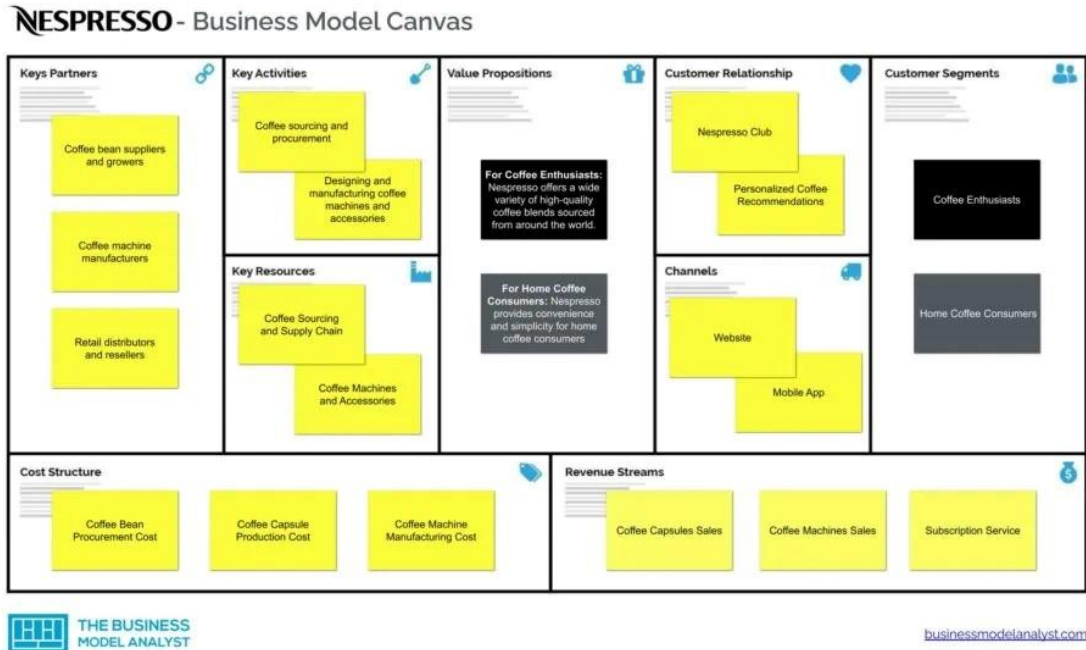

Figure 38: Nespresso Business Model Canvas – Source: The Business Model Analyst- Pereira, D. 2023.

The business model employed by Nespresso is commonly referred to as the razor-razorblade model. The razor-razorblade model, commonly referred to as the "razor and blades" model, is a pricing strategy in which a corporation offers a product (the "razor") at a low or subsidized price and generates profits from the continuous sales of accompanying consumable products (the "blades"). Nespresso sells its coffee machines known as the "razor," at a reasonably priced, making them affordable to a wider range of customers. Nevertheless, the exclusive coffee capsules (referred to as "blades") are marketed at a higher cost per unit, enabling Nespresso to generate substantial profits from each capsule sold. Nespresso's coffee capsules are exclusively compatible with Nespresso machines, resulting in a monopolistic market for these consumables. Nespresso utilizes the razor-razorblade model to incentivize clients to purchase its coffee machines, with the understanding that they will consistently earn profits from the subsequent sales of coffee capsules. The design of this innovative approach has demonstrated a high degree of effectiveness for Nespresso, as it effectively cultivates customer allegiance and ensures a consistent flow of income through the repeated acquisition of consumable products (Pereira, 2023 - The Business Model Analyst).

Case 2- PEPSICO

PepsiCo was losing market share when Indra Nooyi took over the role of PepsiCo's CEO in 2006. Nooyi realized that customer experience was not on top of considerations for PepsiCo. She saw a need to rethink the company's innovation process, focusing on customer experience.

Relying on Design Thinking: in 2012 Indra Nooyi appointed Mauro Porcini as PepsiCo's first chief design officer because she discovered that the problem was much more than packaging issues "the shelves just seem more cluttered, so I thought we had to rethink our innovation process and design experiences for our customers – from conception to what's on the shelf, to

how consumers interact with the product" (Indra Nooyi said in her interview with Adi Ignatius "Harvard Business Review" Editor in chief).

The Design solution: PepsiCo designed and launched products that were more customer-centric such as touch-screen fountain machines (Pepsi Spire) a special line of women's snack, Mountain Dew Kickstart and other customer-centric products.

The Design Thinking outcome: Design thinking helped PepsiCo create relevant brand experience for their customers. Following an iterative prototyping process, and customer-centric approaches for its innovative solutions, the company has enjoyed steady revenue growth during Indra Nooyi's nine years in the top job, and PepsiCo stock price started rising again after several flat years.

Case 3- Bigelow Tea

After almost 70 years in the Tea industry, R.C. Bigelow found itself in a new competitive landscape. New players entering the market with variety of Tea flavors. Brand identification became a key challenge for the company. Consumers, notably the younger generation began to mistake Bigelow Tea for a generic corporation selling "Value Tea" and confused the brand with its competitors.

Relying on Design Thinking: The company asked IDEO (a global design company) to help convey its story to a younger demographic, for whom Tea was popular but the Bigelow brand was not, and to work on updating its positioning statement and brand identity. Based on consumer studies IDEO and Bigelow executives learned the brand could differentiate itself and repositioning the brand through a new brand refresh.

The Design solution: the new packaging ties together all of Bigelow's lines of Tea. Each box features bold graphic elements like a larger, easier-to-read logo, instructions for a perfect cup of Tea.

The Design Thinking outcome: A refreshed positioning statement. Identity and packaging for Bigelow's line of more than 100 varieties of Tea. Bigelow's packs are now well recognized and stand out when displayed on the store shelves.

These case studies demonstrate the critical role of innovation and design thinking in driving success and growth in the food and beverage industry. By prioritizing consumer needs, embracing creativity, and pushing the boundaries of what's possible, companies can differentiate themselves, create value, and contribute to a more sustainable and healthier future.

CHAPTER 6 – VALIDATION
& PERFORMANCE EVALUATION

6.1 Introduction

This chapter includes a discussion of the final project outcomes and performance evaluation to validate the accuracy, reliability, and value of the research. The discussion also includes a detailed description of the research process and result of data analysis with comparison and correlations of the final findings with the existing knowledge and findings from the literature. This chapter aims at demonstrating how the final solution is justified as being significant enough to have satisfactorily addressed the problem.

6.2 Implementation and Role of Design Thinking

The study attempts to provide valuable information and insights for concerned businesses and decision makers, manufacturers, design thinkers and marketers, to help them understand and adapt to the changing market demands and consumption patterns influenced by health and wellness trends. We refer to Implementation as being the process of putting the findings of our research into action by considering or adopting the outcomes and insights provided by this study.

In this chapter we emphasize the actionable findings, and believe that these outcomes have a beneficial effect or contribution to add to the current knowledge and practice.

In this context, the key questions are:

-How can we convert the outcomes of this research into action?

-What are the tools or mechanisms that should be used to make these insights really actionable?

-How can Innovation & Design Thinking play a role in driving business development strategies for organizations to meet the evolving needs?

-How can we make these findings embraced by businesses and professionals, and put them into practice?

Innovation and Design Thinking play a vital role in driving business development strategies for organizations and companies to meet the evolving needs and demands influenced by health and wellness trends. Innovative concepts developed through design thinking methods and strategies with customer-centric approaches offer business organizations and companies a new scope for changes and adaptations to capture the growing opportunities generated by health and wellness trends.

Discussing the practical significance for businesses has a high importance in terms of prompting an action from the concerned business sectors and people like decision makers, design thinkers and marketers, notably those considered among the most involved sectors, as seen in the research, i.e., Food & Beverage, Restaurants, Fitness-related products and services, Healthcare, Hospitality and Tourism, Sportswear.

From these trends, new opportunities for innovation and product development are emerging. Addressing the new needs by developing new product lines that align with the latest trends such as plant-based, organic, natural products, sugar-free, low-fat, functional foods & beverage with health benefits, protein bars, health drinks, and sustainable packaging solutions, are among the major recommendations to better meet the evolving consumer behaviors and choices.

6.3 Validation

The validation, i.e. evaluating the applied methodology and the accuracy and reliability of its outcomes and findings, is achieved through cross-validation and correlations, linking and comparing the primary findings, quantitative and qualitative, with existing data from the

literature. We divided the data into different parts and checked the results obtained from each part. We applied criteria based on relevance, similarity, closeness and proximity of findings from different sources for analyzing, validating and testing the outcomes. The correlations are built and synthesized upon having summarized the key findings from each source, namely the quantitative and qualitative findings from the primary survey, and the secondary findings from the existing literature sources.

6.3.1 Comparison and correlations between findings from the quantitative and the qualitative surveys.

To validate and give reliability to our findings in both quantitative and qualitative surveys, we summarized the key findings and applied a process comparing and establishing correlations and connections based on similarity, closeness and proximity between data from the two surveys.

A- Key findings from the quantitative survey can be summarized as follows:

- Up to sixty-two percent (62%) of consumers in the quantitative survey believe that wellness and health-related factors are very important and considered in their product choices and lifestyle.

- Sixty-seven percent (67%) consider health-related factors when making consumer choices

- Ninety-three percent (93%) of the surveyed consumers have noticed some change in their consumption patterns.

- Sugar-free, low fat, low calories are major changes in consumption habits and choices (71%).

- Preference for health drinks and organic food are among the top changes with 40% preferring health drink and 36% shifting to organic food.

Health and Wellness Trends and Consumer Behavior/preference – Table 5

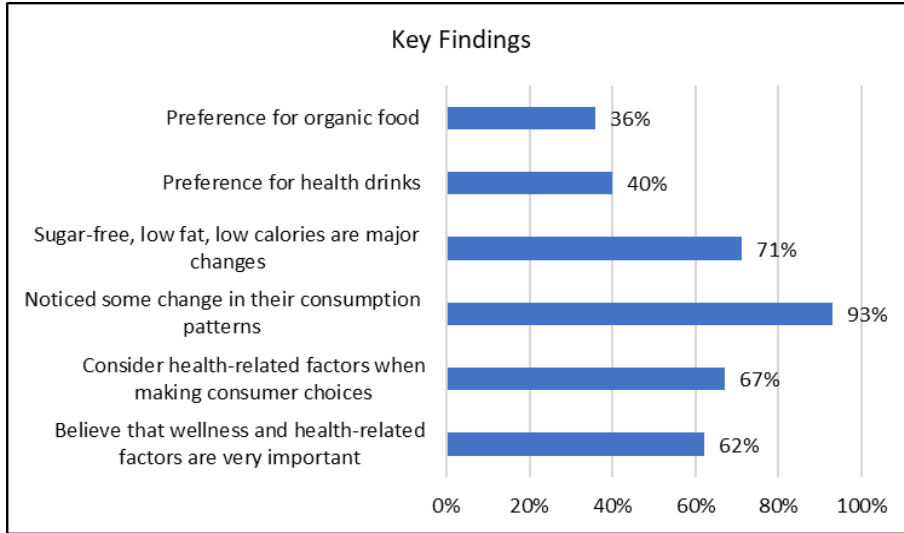|	
Believe that wellness and health-related factors are very important	62%
Consider health-related factors when making consumer choices	67%
Noticed some change in their consumption patterns	93%
Sugar-free, low fat, low calories are major changes	71%
Preference for health drinks	40%
Preference for organic food	36%

Figure 39: Key findings

The top motivations for making health-conscious choices are:

Table 6

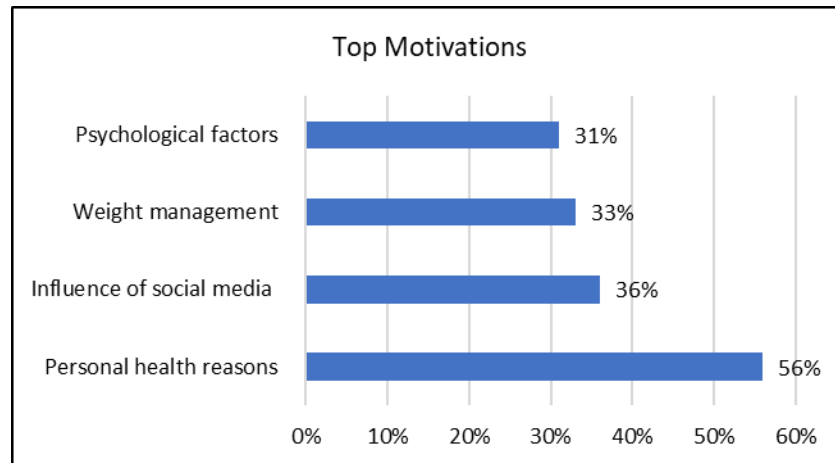|	
Personal health reasons	56%
Influence of social media	36%
Weight management	33%
Psychological factors	31%

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Figure 40: Top motivations

The majority of consumers believe that businesses should adapt their products and services to align with health trends, by:

- Developing new product lines for health-conscious consumers

- Applying changes in their offerings and marketing strategies.

B- Key findings from the qualitative survey can be summarized as follows:

- The shifting towards health and wellness driven demand is estimated between 40% to 65% depending on the industry.

- Sugar-free, low-fat, low calories, are among the top rising demands, with impact of more than 60% on Food & Beverage businesses.

- Demand for organic and plant-based products estimated at 30% of food and beverage demands.

- Health drinks and protein bars are mainly observed among active and sporty young people.

Key recommendations to better meet the evolving consumer behaviors and choices:

- Developing new product lines that align with the latest trends.

- Changing the marketing strategies.

C- Comparison, Correlations and Interpretation

A clear similarity in the data relevant to the importance allocated to wellness and health consideration in the product choices and lifestyle. Sixty-two percent (62%) in the quantitative survey stated it as very important – Sixty-seven percent consider health-related factors when making consumer choices – and Ninety-three percent have noticed some change in their consumption patterns. While the qualitative survey's findings estimate the shifting towards health and wellness demand to be between 40% to 65% depending on the industry. These two surveys' findings are very close and meaningful when placed and analyzed in their proper context with their underlying factors such as "Importance" – "Considered when purchasing or choosing a product" (from the quantitative findings) - and "Shifting in demand" (from the qualitative findings).

- Findings from the quantitative survey show that Sugar-free, low fat, low calories are among the top changes in consumption habits and choices, up to 71%. Preference for health drinks and organic food are also among the top changes with 40% preferring health drink and 36% shifting to organic food.

- The findings from the qualitative survey are very close, estimating the impact of shifting to sugar-free, low-fat, low calories products at more than 60% on the Food & Beverage businesses. While the demand for organic and plant-based products is estimated at 30% of food and beverage demands, and the health drinks and protein bars are on the rise - mainly observed among active and sporty young people.

- The majority of consumers believe that businesses should adapt their products and services to align with health trends, by developing new product lines for health-conscious consumers; and applying changes in their offerings and marketing strategies. These results

from consumers are similar to those of the professionals in the focus group that recommended developing new product lines, and changing the marketing strategies to align with the latest trends.

6.3.2 Comparison and Correlations with Secondary Data

The findings from existing literature sources denote a significant impact of health and wellness trends on consumption patterns, and serve as a valuable background for our research findings extracted from the quantitative and qualitative surveys. The similarity and closeness of our primary data with the secondary sources give more reliability to our research.

When correlating the three components of this research, we can provide a multifaceted and comprehensive study outlining the major influences and implications of health and wellness trends on consumer behaviors and their consumption patterns, as well as formulating actionable guidelines for future business adaptations to overcome the challenging changes and identify the most appropriate strategies for sustainable success.

The underlying reasons driving health and wellness trends studied in this research, give an in-depth understanding of the motivations behind changing consumer behaviors and choices, and add more insights to the present knowledge and assumptions extracted from previous explorations.

-A clear similarity in the data relevant to the importance allocated to wellness and health consideration in the product choices and lifestyle. Our findings are very close to the results of the International Food Information Council (IFIC) - 2020 Food & Health Survey:

- More than 80% of US consumers have experienced some changes in their eating or food preparation habits. In our study, 93% have noticed some changes in their consumption patterns.

- 74% percent limit or avoid sugars in their diet. These findings are very close to our findings where 71% prefer sugar-free.

-According to McKinsey's wellness research, 82% of US consumers, 87% in China, and 73% in the United Kingdom consider wellness a top or important priority in their everyday lives. In our research 89% believe that wellness and health-related factors are important and considered in their product choices and lifestyle.

-As per Borderless Access survey in the Middle East, low-fat, low-sugar, low-carbohydrate diets are among the most popular (average 44% of consumers) similar to global findings. Our findings in the qualitative survey show Sugar-free, low-fat, low calories, are among the top rising demands, with impact on the Food & Beverage industry estimated at more than 60%.

-Our qualitative findings show that consumer demand for organic and plant-based products is on top of the evolving trends, and estimated to have an impact of 30% on the overall food and beverage demands. Health drinks and protein bars are also on the rise – mainly observed among active and sporty young people. These findings are aligned with the secondary data, notably the Food Engineering 2023 source that predicts "A surge in demand for clean-label food and beverage products is expected to be a significant driver for the growth of the organic food and beverage industry".

Table 7 - **Comparative Table:**

Secondary Findings	Our findings from the quantitative & qualitative surveys
IFIC 2020: More than 80% of US consumers have experienced some changes in their eating or food preparation habits.	93% have noticed some changes in their consumption patterns.
IFIC 2020: 74% limit or avoid sugars in their diet.	71% prefer sugar-free.
According to McKinsey's wellness research, 82% of US consumers, 87% in China, and 73% in the United Kingdom consider wellness a top or important priority in their everyday lives.	89% believe that wellness and health-related factors are important and considered in their product choices and lifestyle.
Borderless Access survey in the Middle East: low-fat, low-sugar, low-carbohydrate diets are among the most popular (average 44% of consumers) similar to global findings.	Qualitative survey: Sugar-free, low-fat, low calories, are among the top rising demands, with impact on the Food & Beverage industry estimated at more than 60%.

Validation Diagram - Illustration of the validation process applied – comparing and building correlations and connections between findings from three different sources adopted in the research.
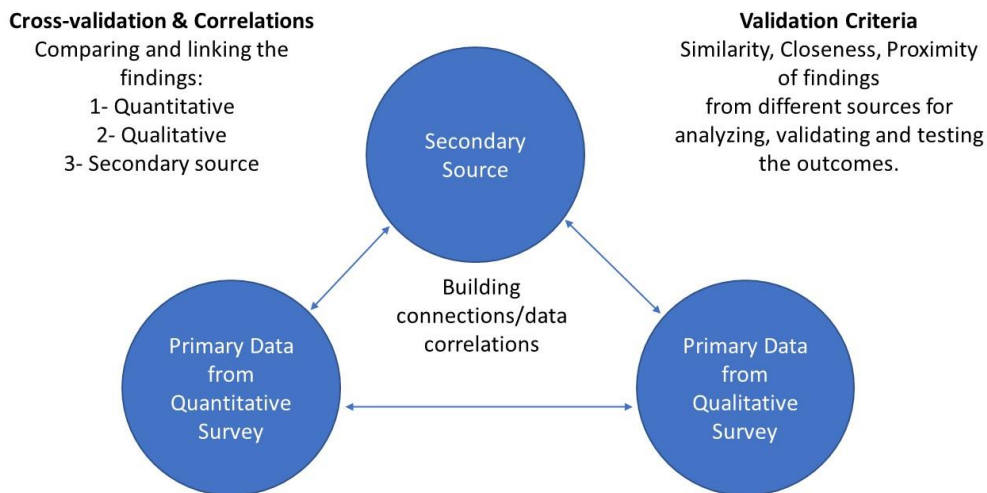

Figure 41: Validation diagram

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6.4 Performance Evaluation

To determine how well the study outcome, or the reached findings have been able to meet the predefined goals and objectives, we set some criteria to help evaluate and assess the overall performance of the study and its significance in terms of added value provided on the base of primary and secondary research conducted and summarized in a way presenting a contribution to the existing knowledge in the health and wellness subject.

To assess the overall performance, we may ask the following questions and try to find answers:

1- To which extent are the findings actionable, i.e. able to be converted into action in practice?

2- Can we consider the findings helpful for the involved business sectors including manufacturers, policymakers, design thinkers and marketers?

3- Did we manage to identify the most impacted business sectors through the research?

4- Did the findings provide insights about the size of the impact on each business sector?

5- To which extent the research has contributed or added new insights to the existing knowledge?

By answering these questions, we will be able to determine how well we have been able to meet the goals and objectives of the project, and assess its overall performance. In this context, the research with its three components quantitative, qualitative and secondary source has provided a multifaceted and comprehensive information based on three pillars of research, each one has its advantages and value and contributed to one side of the requested knowledge. The quantitative survey has provided insights and answers from a consumer perspective reflecting their insights and behavior status; The qualitative survey has collected data on the same subject from professionals and business people involved in the researched trends giving another perspective from a real-world professional experience; And the data gathered from the selected

secondary sources has enriched the research as foundation and academic background study, as well as providing elements for validation and comparison. These three pillars in the research, combined together offer a valuable information answering a lot of questions with relevance to health and wellness impact. With its multifaceted findings, this study may have a contribution to prompt a reflection and encourage concerned people and organizations to take action in their businesses.

Our findings identified the most impacted business sectors and highlighted the size of impact health and wellness trends have on each sector. The findings have also contributed to adding some knowledge and understanding of the underlying reasons behind the behaviors, notably factors like motivations driving consumer behaviors and choices. These underlying factors may add new insights to the present knowledge or assumptions extracted from previous explorations.

CHAPTER 7 – DISCUSSION, FURTHER WORK & CONCLUSION

7.1 Discussion

In this section we explore the results of the research and present an interpretation of the findings with conclusions about its contribution and impact on the concerned field. The discussion includes a comparison between our findings and existing studies.

A- Interpretation of Results: The final results offer an opportunity for a better understanding of the impact of health and wellness trends on consumption patterns and their influences on businesses. The key findings from the quantitative and qualitative surveys provide answers to our research questions, notably "How do evolving health and wellness trends influence consumer consumption patterns?"; "What are the key factors shaping the choices individuals make in terms of food, products, lifestyle, wellness practices?"; "What are the implications for businesses? And How should policymakers, design thinking teams and marketers react?".

In this context, an interpretation of the key findings is stated below:

1- **Significance of the trends influence on consumer consumption patterns**

- Significant consideration and interest are allocated to health and wellness, the majority of consumers believe that wellness and health-related factors are very important and considered in their product choices and lifestyle.

- An overwhelming majority, 93% of consumers have noticed some changes in their consumption patterns, and 67% consider health-related factors when making consumer choices. Preference for health drinks, protein bars, and organic food are among the top changes with 40% preferring health drink, 36% shifting to organic food, and 27% prefer diet snacking & protein bars.

- Demand for organic, plant-based, sugar-free, low fat, low calories, are major changes in consumption habits and choices for the surveyed consumers (up to 71%), with impact of more than 60% on Food & Beverage businesses.

2- Top motivations for making health-conscious choices are:

Personal health reasons, Influence of social media, Weight management, and Psychological factors, with percentages stated respectively as follows: 56% - 36% - 33% - 31%

3- Implications for Businesses

- The most affected business sectors are identified as follows: Food & Beverage, Restaurants, Fitness-related products and services, Healthcare, Hospitality and Tourism, Sportswear. The highest impact is on the Food & Beverage (up to 65%), with an overall impact varying from 30% to 65% depending on business sector.

- The percentage of consumers shifting towards health and wellness driven demand is estimated at 40% to 65% depending on the industry.

- The majority of consumers believe that businesses should adapt their products and services to align with health trends by developing new product lines for health-conscious consumers.

- Recommendations from focus group encourage manufacturers and business organizations to capitalize on the increased demand for plant-based, organic, sugar-free, low-fat, low calories, protein bars, health drinks, and sustainable packaging solutions.

B- Comparison with Existing Studies: From a comprehensive review of existing studies related to the same topic, we highlight in this section the key findings extracted and summarized from secondary sources and used as foundation for this project. We also compare the results of

this study with those of previous studies summarized below, to demonstrate the novelty of our research and its contribution to the researched field.

Having a look into the data from literature reviews, we highlight the major findings related to health and wellness trends, in a summary presented below:

Existing studies show that health and wellness trends are emerging globally, and the findings confirm that consumers have experienced changes in their consumption patterns and behaviors, mainly after Covid-19. They also identify the changes as including health and wellness-oriented practices and lifestyles, namely nutritional wellness and fitness, a shift to organic and natural foods, and preferences for healthy snacking, healthy eating and wellness practices. Studies also show a rise in demand for plant-based, fruit-based, health drinks, protein bars, sugar-free, low-fat, and low calories. Existing studies emphasize changes in purchasing and consumption behaviors, with willingness to pay more for health / wellness-related products.

From a review of the literature findings extracted and synthesized in an analytical and interpretational context, we can presumably state that while the existing studies have addressed the evolving health and wellness trends / health-conscious behaviors, and analyzed their influence on consumption and lifestyle choices, those studies did not investigate exhaustively the factors and motivations driving health-related consumer decisions, such as behavioral and socio-psychological needs. Existing studies also present some weaknesses and limitations in studying and providing actionable insights related to the implications for businesses, i.e., the impact on business organizations and sectors, the most impacted industries, and the adaptation strategies implemented/or need to be implemented to adapt to the changing market demands influenced by health and wellness trends.

In this context, we tried in our study to cover more than the area related to the visible aspects of the impact of health and wellness trends. We investigated the motivations behind health-conscious choices, from personal health reasons, to weight management, influence of social media, healthcare professional recommendations, environmental sustainability, to self-image and perceived health benefits; and we assessed the importance of each motivation. We also studied the implications for businesses, identified the most affected business sectors, and provided guidelines for integrating design thinking approaches and methods into the organization's strategic vision to design a powerful framework for driving innovation, enhancing customer experiences, and gaining a competitive advantage in the marketplace.

We assume that our new findings would have some contribution and value added to the existing knowledge, providing new insights for understanding the underlying reasons behind the behaviors, notably the motivations driving consumer behaviors and choices. As well as providing information regarding the implications of health-conscious choices for businesses, organizations, policymakers, and concerned design thinkers and marketers.

Some limitations in our research need to be solved in future studies to give a more exhaustive scope. Among these limitations are the limited size of sample, and technological support to facilitate the data collection and analysis with higher capacity of data treatment and compilation.

7.2 Future Scope

The results of this project show a real need for further studies and investigations on the researched field. It emphasizes the importance of getting a deeper understanding of the topic with its different aspects including both parts, consumers and professionals. The present project

offers new insights and open new doors for concerned organizations, professionals, and academic researchers interested in understanding consumer behaviors and health trends, to build on the outcome of our research and design new models for further studies and investigations on the topic. Further studies are requested to gain more insights from consumers and professionals involved in the researched field. Studying the subject with larger target population will give the research a broader scope and will address the problem in a more exhaustive way, in order to cover the different aspects involved in health and wellness trends; from consumer behaviors to preferences and choices, to consumption patterns and motivations, to business implications and adaptation strategies. A great potential exists for more research and innovation in food and beverage to develop new solutions and technologies that align with health and wellness trends.

7.3 Areas of Application

Areas of application of the research outcome involve various sectors, notably the Food Industry such as food manufacturers and retailers that need to capitalize on the increased demand for plant-based, fruit-based, organic, sugar-free, low-fat, low calories, protein bars, health drinks, and sustainable packaging solutions.

Food manufacturers can develop new product formulations using plant-based ingredients to create alternatives to traditional animal-based products like meat, dairy and eggs. This could include plant-based burgers, dairy-free milk, and egg substitutes made from ingredients like tofu or chickpeas. Additionally, there is a growing market for organic and natural foods, prompting manufacturers to source high-quality organic ingredients and label products accordingly.

Retailers play a crucial role in meeting consumer demand by stocking shelves with a diverse array of health-conscious products. They can leverage marketing strategies to promote the benefits of plant-based, organic, and natural foods, attracting health-conscious consumers to their stores. End-cap displays, in-store signage, and digital marketing campaigns can highlight the nutritional value and sustainability of these products, driving sales and customer loyalty.

Furthermore, food companies can invest in research and development to create innovative functional foods and beverages that offer additional health benefits beyond basic nutrition. This includes products fortified with vitamins, minerals, antioxidants, probiotics, and other bioactive compounds known to support health and wellness. By incorporating scientifically validated ingredients into their formulations, food manufacturers can differentiate their products and appeal to consumers seeking functional solutions for their dietary needs.

In addition to product innovation, food companies can also focus on sustainability initiatives to address environmental concerns associated with food production. This may involve sourcing ingredients from sustainable and regenerative agriculture practices, reducing food waste throughout the supply chain, and adopting eco-friendly packaging solutions. By aligning with consumers' values around health, sustainability, and ethical sourcing, food companies can build trust and loyalty while contributing to positive social and environmental impact.

Overall, the food industry has vast opportunities to capitalize on the shifts in consumption patterns driven by health and wellness trends. By embracing innovation, sustainability, and consumer-centric strategies, food manufacturers and retailers can thrive in a rapidly evolving market landscape focused on healthier, more sustainable food choices.

The agricultural sector plays a pivotal role in meeting the growing demand for plant-based, organic, and natural foods driven by health and wellness trends. As consumers become more

conscious of the health and environmental impacts of their food choices, farmers may adapt their practices to align with these evolving preferences for organic products and plant-based ingredients. One area of focus for farmers is transitioning to organic farming methods to meet the demand for organic produce. Organic farming eschews synthetic pesticides, fertilizers, and genetically modified organisms (GMOs) in favor of natural and sustainable practices that prioritize soil health and biodiversity. By obtaining organic certification and adhering to organic standards, farmers can access premium markets and command higher prices for their products. Moreover, there is an increasing interest in plant-based agriculture as consumers seek alternatives to conventional animal products. Farmers can diversify their crop rotations to include more legumes, grains, fruits, and vegetables, which serve as valuable ingredients for plant-based foods. This shift not only aligns with health and wellness trends but also contributes to environmental sustainability by reducing the ecological footprint associated with livestock production.

Additionally, farmers can explore regenerative agriculture practices that focus on restoring soil health, enhancing biodiversity, and sequestering carbon in agricultural landscapes. Techniques such as cover cropping, no-till farming, rotational grazing, and agroforestry promote soil fertility, water retention, and carbon sequestration, while reducing the need for synthetic inputs and mitigating climate change.

Furthermore, farmers can collaborate with food companies and retailers to establish direct-to-consumer channels such as farmers' markets, community-supported agriculture (CSA) programs, and online sales platforms. These direct marketing channels enable farmers to forge closer connections with consumers, educate them about sustainable farming practices, and provide access to fresh, locally grown produce.

In summary, agriculture and farming are undergoing transformative changes to meet the demands of health-conscious consumers and address sustainability concerns. By embracing organic, plant-based, and regenerative practices, farmers can contribute to a healthier food system that prioritizes human health, environmental stewardship, and economic viability.

Healthcare providers and wellness professionals are integral to supporting individuals in adopting healthy lifestyle choices aligned with health and wellness trends. As consumers become increasingly proactive about managing their health and well-being, there is a growing need for personalized guidance, education, and support in areas such as nutrition, exercise, stress management, and preventive care.

One area of application for healthcare providers is integrating dietary recommendations into patient care plans to address specific health concerns and optimize overall well-being. This may involve conducting nutrition assessments, developing personalized meal plans, and providing ongoing support and monitoring to help patients achieve their health goals. Healthcare professionals can leverage evidence-based guidelines and resources to educate patients about the benefits of a balanced diet rich in whole foods, fruits, vegetables, lean proteins, and healthy fats.

Moreover, there is a rising interest in holistic approaches to healthcare that encompass mind-body-spirit connections and emphasize preventive strategies for maintaining wellness. Integrative medicine practices such as acupuncture, chiropractic care, massage therapy, and herbal medicine offer complementary modalities to conventional treatments, addressing the root causes of health issues and promoting holistic healing.

Wellness professionals such as nutritionists, dietitians, fitness trainers, and health coaches play a vital role in empowering individuals to make informed decisions about their health and lifestyle habits. Through one-on-one counseling, group workshops, online programs, and educational resources, wellness professionals can educate clients about the principles of healthy eating, exercise, stress management, sleep hygiene, and self-care.

Additionally, healthcare organizations and wellness centers can collaborate with community partners to offer holistic wellness programs that address the diverse needs of individuals and populations. This may include wellness retreats, cooking classes, mindfulness workshops, fitness challenges, and support groups focused on specific health conditions or lifestyle goals.

Retailers play a pivotal role in meeting the needs and preferences of health-conscious consumers by offering a diverse array of products and services that support healthy lifestyles. As consumers become more discerning about the quality and nutritional value of the products they purchase, retailers must adapt their strategies to cater to these evolving demands. One area of application for retailers is curating product assortments that align with health and wellness trends, including plant-based, organic, natural, and functional foods and beverages. By partnering with suppliers and distributors that specialize in health-oriented products, retailers can ensure a steady supply of high-quality goods that meet consumer expectations for taste, freshness, and nutritional value. Moreover, retailers can invest in merchandising strategies that showcase health-conscious products and educate consumers about their benefits. Eye-catching displays, signage, and promotional materials can highlight key features such as organic certification, non-GMO ingredients, sustainable sourcing, and nutritional attributes. Additionally, retailers can leverage digital marketing channels such as social media, email newsletters, and online blogs to engage with health-conscious shoppers and provide valuable

content related to healthy living. E-commerce also need to adjust their product offerings and marketing strategies to cater to health-conscious consumers. This could involve prominently featuring plant-based and organic products, providing educational materials about healthy eating choices, and offering convenient online shopping options for health-oriented products.

Hospitality and Food service like restaurants and other food service establishments can adapt their menus to accommodate the preferences of health-conscious diners. This may involve offering more plant-based and organic options, clearly labeling menu items with nutritional information, and providing customizable meal choices to meet individual dietary needs.

Figure 42 - Future Scope: Illustration showing Areas of application with recommendations for business adaptations.
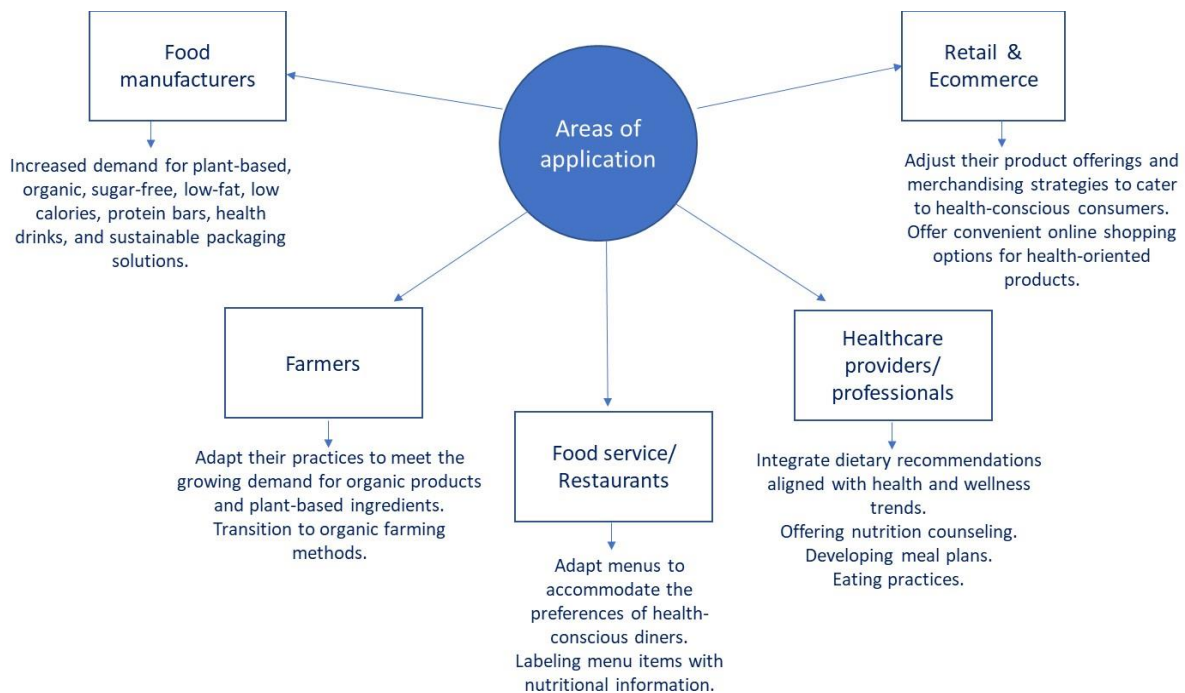
Overall, the areas of application for the proposed changes in consumption patterns are vast and encompass various industries, each with opportunities to contribute to and/or to benefit from the growing focus on health and wellness.

7.4 Conclusion

This study aims at emphasizing and complementing the current knowledge gained from the existing approaches and methods that have been used to explore and study the health and wellness trends with their impact on consumer behaviors and business implications. Through our research process that includes quantitative and qualitative surveys, the objective of this study is to provide additional information focusing on the influences of health and wellness trends on consumer behaviors and their consumption patterns, as well as exploring their implications for businesses and providing actionable guidelines for future business adaptations to overcome the challenging changes.

The research with its three components quantitative, qualitative and secondary source has provided a multifaceted information based on three pillars, each one has its advantages and value and has contributed to one side of the researched knowledge. The quantitative survey has provided insights and answers from a consumer perspective reflecting their behavior and attitude status; The qualitative survey has collected data on the same subject from professionals and business people involved in the health and wellness trends giving another perspective from a real-world professional experience; And the data gathered from the selected secondary sources has enriched the research as foundation and academic background, as well as providing elements for validation and comparison. With its multifaceted findings, this research may have a contribution to prompt a reflection and encourage concerned people and organizations to take the required actions.

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Our findings identified the most impacted business sectors and highlighted the size of impact health and wellness trends have on each sector, with recommendations for appropriate action. The findings have also contributed to adding some knowledge and understanding of the underlying reasons behind the behaviors, notably factors like motivations driving consumer behaviors and choices. These underlying factors may add new insights to the present knowledge or assumptions.

Key findings of the research show that an overwhelming majority of consumers believe that wellness and health-related factors are very important and considered in their product choices and lifestyle. They confirmed that they have noticed changes in their consumption patterns in the last few years, notably after Covid-19. Among the major changes, consumers are shifting to sugar-free, low-fat, low calories, with preferences for health drinks, organic food, plant-based, and protein bars. The top three motivations for making health-conscious choices are "Personal health reasons", "Influence of social media" and "Weight management". Psychological factors like self-image/ perceived health benefits are also behind health-conscious choices. The influence of marketing & advertising on healthy choices is considered very influential.

There is a full agreement between the participants of the focus group that the shift in consumer demand experienced in their business is of significant importance, and its impact on their organizations is very high, and these shifts are in a continuous rise. The most affected business sectors are identified as follows: Food & Beverage, Restaurants, Fitness-related products and services, Healthcare, Hospitality and Tourism, Sportswear. The highest impact is on the Food & Beverage (up to 65%), with an overall impact varying from 30% to 65% depending on business sector. The percentage of consumers shifting towards health and wellness driven

demand is estimated between 40% to 65% depending on the industry. Food & Beverage businesses are the most affected. Consumer demand for organic and plant-based products is on top of the evolving trends, and estimated to have an impact of 30% on the overall food and beverage demands. Health drinks and protein bars are also on the rise – mainly observed among active and sporty young people. The interest in sustainable products is also growing, with tendency to be mainly exhibited among people between 30 and 40 YO. Understanding the new needs; developing new product lines using design thinking methods and strategies to align with the latest trends such as plant-based, organic, natural products, sugar-free, low-fat, functional food & beverage, protein bars, health drinks, and sustainable packaging solutions; and adapting the marketing strategies; are the key recommendations provided to better meet the evolving consumer behaviors and choices.

Areas of application of the research outcome involve various sectors, notably the Food Industry such as food manufacturers and retailers that need to capitalize on the increased demand for plant-based, organic, sugar-free, low-fat, low calories, protein bars, health drinks, and sustainable packaging solutions. Farmers may adapt their practices to meet the growing demand for organic produce and plant-based ingredients. Healthcare providers and wellness professionals can integrate dietary recommendations aligned with health and wellness trends into their services. Retail and E-commerce need to adjust their product offerings and merchandising strategies to cater to health-conscious consumers, providing educational materials about healthy eating choices, and offering convenient online shopping options for health-oriented products. Hospitality and Food service like restaurants and other food services can adapt their menus to accommodate the preferences of health-conscious diners, clearly

labeling menu items with nutritional information, and providing customizable meal choices to meet individual dietary needs.

Some limitations in our research need to be solved in future studies to give a more exhaustive scope. Among these limitations are the limited size of sample, and technological support to facilitate the data collection and analysis with higher capacity of data treatment and compilation.

The present project offers new insights and open new doors for concerned organizations and researchers interested in understanding consumer behaviors and health trends to build on the outcome of our research and design new models for further studies and investigations on the topic.

The overall experience and learning gained from this research shows a real need for further studies to gain more insights from both concerned parties, notably consumers and professionals. Studying the subject with larger target population will give the research a broader scope and will have the advantage to cover different aspects involved in health and wellness trends, from consumer behaviors to preferences and choices, to consumption patterns and motivations, to business implications and adaptation strategies. A great potential exists for more research and innovation in food and beverage to develop new solutions and technologies that align with health and wellness trends. This includes advancements in organic food, plant-based alternatives, health drinks, sustainable packaging solutions, and functional ingredients with specific health benefits.

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